



Web API Reference

# AWS Glue



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# AWS Glue: Web API Reference

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# Table of Contents

<b>Welcome to the AWS Glue Web API Reference .....</b>	<b>1</b>
<b>Actions .....</b>	<b>2</b>
BatchCreatePartition .....	10
Request Syntax .....	10
Request Parameters .....	11
Response Syntax .....	12
Response Elements .....	13
Errors .....	13
See Also .....	14
BatchDeleteConnection .....	15
Request Syntax .....	15
Request Parameters .....	15
Response Syntax .....	16
Response Elements .....	16
Errors .....	16
See Also .....	17
BatchDeletePartition .....	18
Request Syntax .....	18
Request Parameters .....	18
Response Syntax .....	19
Response Elements .....	19
Errors .....	20
See Also .....	20
BatchDeleteTable .....	22
Request Syntax .....	22
Request Parameters .....	22
Response Syntax .....	23
Response Elements .....	24
Errors .....	24
See Also .....	25
BatchDeleteTableVersion .....	26
Request Syntax .....	26
Request Parameters .....	26
Response Syntax .....	27

Response Elements .....	28
Errors .....	28
See Also .....	28
BatchGetBlueprints .....	30
Request Syntax .....	30
Request Parameters .....	30
Response Syntax .....	31
Response Elements .....	31
Errors .....	32
See Also .....	32
BatchGetCrawlers .....	34
Request Syntax .....	34
Request Parameters .....	34
Response Syntax .....	34
Response Elements .....	37
Errors .....	38
See Also .....	38
BatchGetCustomEntityTypes .....	39
Request Syntax .....	39
Request Parameters .....	39
Response Syntax .....	39
Response Elements .....	40
Errors .....	40
See Also .....	41
BatchGetDataQualityResult .....	42
Request Syntax .....	42
Request Parameters .....	42
Response Syntax .....	42
Response Elements .....	44
Errors .....	44
See Also .....	45
BatchGetDevEndpoints .....	46
Request Syntax .....	46
Request Parameters .....	46
Response Syntax .....	46
Response Elements .....	47

---

Errors .....	48
See Also .....	48
<b>BatchGetJobs .....</b>	<b>50</b>
Request Syntax .....	50
Request Parameters .....	50
Response Syntax .....	50
Response Elements .....	80
Errors .....	80
See Also .....	81
<b>BatchGetPartition .....</b>	<b>82</b>
Request Syntax .....	82
Request Parameters .....	82
Response Syntax .....	83
Response Elements .....	85
Errors .....	85
See Also .....	86
<b>BatchGetTableOptimizer .....</b>	<b>88</b>
Request Syntax .....	88
Request Parameters .....	88
Response Syntax .....	88
Response Elements .....	89
Errors .....	90
See Also .....	90
<b>BatchGetTriggers .....</b>	<b>91</b>
Request Syntax .....	91
Request Parameters .....	91
Response Syntax .....	91
Response Elements .....	92
Errors .....	93
See Also .....	93
<b>BatchGetWorkflows .....</b>	<b>95</b>
Request Syntax .....	95
Request Parameters .....	95
Response Syntax .....	96
Response Elements .....	102
Errors .....	102

---

See Also .....	103
BatchStopJobRun .....	104
Request Syntax .....	104
Request Parameters .....	104
Response Syntax .....	105
Response Elements .....	105
Errors .....	105
See Also .....	106
BatchUpdatePartition .....	107
Request Syntax .....	107
Request Parameters .....	108
Response Syntax .....	110
Response Elements .....	110
Errors .....	110
See Also .....	111
CancelDataQualityRuleRecommendationRun .....	112
Request Syntax .....	112
Request Parameters .....	112
Response Elements .....	112
Errors .....	112
See Also .....	113
CancelDataQualityRulesetEvaluationRun .....	114
Request Syntax .....	114
Request Parameters .....	114
Response Elements .....	114
Errors .....	114
See Also .....	115
CancelMLTaskRun .....	116
Request Syntax .....	116
Request Parameters .....	116
Response Syntax .....	117
Response Elements .....	117
Errors .....	118
See Also .....	118
CancelStatement .....	120
Request Syntax .....	120

Request Parameters .....	120
Response Elements .....	121
Errors .....	121
See Also .....	122
CheckSchemaVersionValidity .....	123
Request Syntax .....	123
Request Parameters .....	123
Response Syntax .....	124
Response Elements .....	124
Errors .....	124
See Also .....	125
CreateBlueprint .....	126
Request Syntax .....	126
Request Parameters .....	126
Response Syntax .....	127
Response Elements .....	127
Errors .....	128
See Also .....	128
CreateClassifier .....	130
Request Syntax .....	130
Request Parameters .....	130
Response Elements .....	131
Errors .....	131
See Also .....	132
CreateConnection .....	133
Request Syntax .....	133
Request Parameters .....	133
Response Elements .....	134
Errors .....	134
See Also .....	135
CreateCrawler .....	136
Request Syntax .....	136
Request Parameters .....	138
Response Elements .....	141
Errors .....	141
See Also .....	142

CreateCustomEntityType .....	143
Request Syntax .....	143
Request Parameters .....	143
Response Syntax .....	144
Response Elements .....	145
Errors .....	145
See Also .....	146
CreateDatabase .....	147
Request Syntax .....	147
Request Parameters .....	147
Response Elements .....	148
Errors .....	148
See Also .....	150
CreateDataQualityRuleset .....	151
Request Syntax .....	151
Request Parameters .....	151
Response Syntax .....	153
Response Elements .....	153
Errors .....	153
See Also .....	154
CreateDevEndpoint .....	155
Request Syntax .....	155
Request Parameters .....	155
Response Syntax .....	160
Response Elements .....	160
Errors .....	163
See Also .....	165
CreateJob .....	166
Request Syntax .....	166
Request Parameters .....	195
Response Syntax .....	202
Response Elements .....	202
Errors .....	202
See Also .....	203
CreateMLTransform .....	204
Request Syntax .....	204



---

Request Parameters .....	205
Response Syntax .....	209
Response Elements .....	209
Errors .....	210
See Also .....	211
CreatePartition .....	212
Request Syntax .....	212
Request Parameters .....	213
Response Elements .....	214
Errors .....	214
See Also .....	215
CreatePartitionIndex .....	217
Request Syntax .....	217
Request Parameters .....	217
Response Elements .....	218
Errors .....	218
See Also .....	219
CreateRegistry .....	220
Request Syntax .....	220
Request Parameters .....	220
Response Syntax .....	221
Response Elements .....	221
Errors .....	222
See Also .....	223
CreateSchema .....	224
Request Syntax .....	224
Request Parameters .....	224
Response Syntax .....	227
Response Elements .....	228
Errors .....	230
See Also .....	231
CreateScript .....	233
Request Syntax .....	233
Request Parameters .....	233
Response Syntax .....	234
Response Elements .....	234

---

Errors .....	235
See Also .....	235
CreateSecurityConfiguration .....	236
Request Syntax .....	236
Request Parameters .....	236
Response Syntax .....	237
Response Elements .....	237
Errors .....	238
See Also .....	238
CreateSession .....	240
Request Syntax .....	240
Request Parameters .....	240
Response Syntax .....	245
Response Elements .....	246
Errors .....	246
See Also .....	247
CreateTable .....	248
Request Syntax .....	248
Request Parameters .....	250
Response Elements .....	251
Errors .....	252
See Also .....	253
CreateTableOptimizer .....	254
Request Syntax .....	254
Request Parameters .....	254
Response Elements .....	255
Errors .....	255
See Also .....	256
CreateTrigger .....	258
Request Syntax .....	258
Request Parameters .....	259
Response Syntax .....	261
Response Elements .....	261
Errors .....	262
See Also .....	263
CreateUserDefinedFunction .....	264

---

Request Syntax .....	264
Request Parameters .....	264
Response Elements .....	265
Errors .....	265
See Also .....	266
CreateWorkflow .....	267
Request Syntax .....	267
Request Parameters .....	267
Response Syntax .....	268
Response Elements .....	269
Errors .....	269
See Also .....	270
DeleteBlueprint .....	271
Request Syntax .....	271
Request Parameters .....	271
Response Syntax .....	271
Response Elements .....	271
Errors .....	272
See Also .....	272
DeleteClassifier .....	274
Request Syntax .....	274
Request Parameters .....	274
Response Elements .....	274
Errors .....	274
See Also .....	275
DeleteColumnStatisticsForPartition .....	276
Request Syntax .....	276
Request Parameters .....	276
Response Elements .....	277
Errors .....	277
See Also .....	278
DeleteColumnStatisticsForTable .....	280
Request Syntax .....	280
Request Parameters .....	280
Response Elements .....	281
Errors .....	281

See Also .....	282
DeleteConnection .....	283
Request Syntax .....	283
Request Parameters .....	283
Response Elements .....	284
Errors .....	284
See Also .....	284
DeleteCrawler .....	285
Request Syntax .....	285
Request Parameters .....	285
Response Elements .....	285
Errors .....	285
See Also .....	286
DeleteCustomEntityType .....	287
Request Syntax .....	287
Request Parameters .....	287
Response Syntax .....	287
Response Elements .....	287
Errors .....	288
See Also .....	289
DeleteDatabase .....	290
Request Syntax .....	290
Request Parameters .....	290
Response Elements .....	291
Errors .....	291
See Also .....	292
DeleteDataQualityRuleset .....	293
Request Syntax .....	293
Request Parameters .....	293
Response Elements .....	293
Errors .....	293
See Also .....	294
DeleteDevEndpoint .....	295
Request Syntax .....	295
Request Parameters .....	295
Response Elements .....	295

Errors .....	295
See Also .....	296
DeleteJob .....	297
Request Syntax .....	297
Request Parameters .....	297
Response Syntax .....	297
Response Elements .....	297
Errors .....	298
See Also .....	298
DeleteMLTransform .....	300
Request Syntax .....	300
Request Parameters .....	300
Response Syntax .....	300
Response Elements .....	301
Errors .....	301
See Also .....	302
DeletePartition .....	303
Request Syntax .....	303
Request Parameters .....	303
Response Elements .....	304
Errors .....	304
See Also .....	305
DeletePartitionIndex .....	306
Request Syntax .....	306
Request Parameters .....	306
Response Elements .....	307
Errors .....	307
See Also .....	308
DeleteRegistry .....	309
Request Syntax .....	309
Request Parameters .....	309
Response Syntax .....	309
Response Elements .....	310
Errors .....	310
See Also .....	311
DeleteResourcePolicy .....	312

---

Request Syntax .....	312
Request Parameters .....	312
Response Elements .....	313
Errors .....	313
See Also .....	313
DeleteSchema .....	315
Request Syntax .....	315
Request Parameters .....	315
Response Syntax .....	315
Response Elements .....	316
Errors .....	316
See Also .....	317
DeleteSchemaVersions .....	318
Request Syntax .....	318
Request Parameters .....	318
Response Syntax .....	319
Response Elements .....	319
Errors .....	320
See Also .....	320
DeleteSecurityConfiguration .....	322
Request Syntax .....	322
Request Parameters .....	322
Response Elements .....	322
Errors .....	322
See Also .....	323
DeleteSession .....	324
Request Syntax .....	324
Request Parameters .....	324
Response Syntax .....	325
Response Elements .....	325
Errors .....	325
See Also .....	326
DeleteTable .....	327
Request Syntax .....	327
Request Parameters .....	327
Response Elements .....	328

Errors .....	328
See Also .....	329
DeleteTableOptimizer .....	331
Request Syntax .....	331
Request Parameters .....	331
Response Elements .....	332
Errors .....	332
See Also .....	333
DeleteTableVersion .....	334
Request Syntax .....	334
Request Parameters .....	334
Response Elements .....	335
Errors .....	335
See Also .....	336
DeleteTrigger .....	337
Request Syntax .....	337
Request Parameters .....	337
Response Syntax .....	337
Response Elements .....	337
Errors .....	338
See Also .....	338
DeleteUserDefinedFunction .....	340
Request Syntax .....	340
Request Parameters .....	340
Response Elements .....	341
Errors .....	341
See Also .....	342
DeleteWorkflow .....	343
Request Syntax .....	343
Request Parameters .....	343
Response Syntax .....	343
Response Elements .....	343
Errors .....	344
See Also .....	344
GetBlueprint .....	346
Request Syntax .....	346

Request Parameters .....	346
Response Syntax .....	347
Response Elements .....	347
Errors .....	347
See Also .....	348
<b>GetBlueprintRun .....</b>	<b>349</b>
Request Syntax .....	349
Request Parameters .....	349
Response Syntax .....	350
Response Elements .....	350
Errors .....	350
See Also .....	351
<b>GetBlueprintRuns .....</b>	<b>352</b>
Request Syntax .....	352
Request Parameters .....	352
Response Syntax .....	353
Response Elements .....	353
Errors .....	354
See Also .....	354
<b>GetCatalogImportStatus .....</b>	<b>356</b>
Request Syntax .....	356
Request Parameters .....	356
Response Syntax .....	356
Response Elements .....	356
Errors .....	357
See Also .....	357
<b>GetClassifier .....</b>	<b>359</b>
Request Syntax .....	359
Request Parameters .....	359
Response Syntax .....	359
Response Elements .....	360
Errors .....	361
See Also .....	361
<b>GetClassifiers .....</b>	<b>362</b>
Request Syntax .....	362
Request Parameters .....	362



Response Syntax .....	362
Response Elements .....	364
Errors .....	364
See Also .....	364
<b>GetColumnStatisticsForPartition .....</b>	<b>366</b>
Request Syntax .....	366
Request Parameters .....	366
Response Syntax .....	367
Response Elements .....	369
Errors .....	369
See Also .....	370
<b>GetColumnStatisticsForTable .....</b>	<b>371</b>
Request Syntax .....	371
Request Parameters .....	371
Response Syntax .....	372
Response Elements .....	374
Errors .....	374
See Also .....	375
<b>GetColumnStatisticsTaskRun .....</b>	<b>376</b>
Request Syntax .....	376
Request Parameters .....	376
Response Syntax .....	376
Response Elements .....	377
Errors .....	377
See Also .....	378
<b>GetColumnStatisticsTaskRuns .....</b>	<b>379</b>
Request Syntax .....	379
Request Parameters .....	379
Response Syntax .....	380
Response Elements .....	380
Errors .....	381
See Also .....	381
<b>GetConnection .....</b>	<b>383</b>
Request Syntax .....	383
Request Parameters .....	383
Response Syntax .....	384

Response Elements .....	384
Errors .....	385
See Also .....	385
GetConnections .....	387
Request Syntax .....	387
Request Parameters .....	387
Response Syntax .....	388
Response Elements .....	389
Errors .....	389
See Also .....	390
GetCrawler .....	391
Request Syntax .....	391
Request Parameters .....	391
Response Syntax .....	391
Response Elements .....	394
Errors .....	394
See Also .....	394
GetCrawlerMetrics .....	396
Request Syntax .....	396
Request Parameters .....	396
Response Syntax .....	397
Response Elements .....	397
Errors .....	398
See Also .....	398
GetCrawlers .....	399
Request Syntax .....	399
Request Parameters .....	399
Response Syntax .....	399
Response Elements .....	402
Errors .....	402
See Also .....	403
GetCustomEntityType .....	404
Request Syntax .....	404
Request Parameters .....	404
Response Syntax .....	404
Response Elements .....	404

---

Errors .....	405
See Also .....	406
GetDatabase .....	407
Request Syntax .....	407
Request Parameters .....	407
Response Syntax .....	408
Response Elements .....	408
Errors .....	409
See Also .....	409
GetDatabases .....	411
Request Syntax .....	411
Request Parameters .....	411
Response Syntax .....	412
Response Elements .....	413
Errors .....	413
See Also .....	414
GetDataCatalogEncryptionSettings .....	415
Request Syntax .....	415
Request Parameters .....	415
Response Syntax .....	415
Response Elements .....	416
Errors .....	416
See Also .....	416
GetDataflowGraph .....	418
Request Syntax .....	418
Request Parameters .....	418
Response Syntax .....	418
Response Elements .....	419
Errors .....	419
See Also .....	420
GetDataQualityResult .....	421
Request Syntax .....	421
Request Parameters .....	421
Response Syntax .....	421
Response Elements .....	423
Errors .....	425

---

See Also .....	426
GetDataQualityRuleRecommendationRun .....	427
Request Syntax .....	427
Request Parameters .....	427
Response Syntax .....	427
Response Elements .....	428
Errors .....	430
See Also .....	431
GetDataQualityRuleset .....	432
Request Syntax .....	432
Request Parameters .....	432
Response Syntax .....	432
Response Elements .....	433
Errors .....	434
See Also .....	435
GetDataQualityRulesetEvaluationRun .....	436
Request Syntax .....	436
Request Parameters .....	436
Response Syntax .....	436
Response Elements .....	437
Errors .....	440
See Also .....	441
GetDevEndpoint .....	442
Request Syntax .....	442
Request Parameters .....	442
Response Syntax .....	442
Response Elements .....	443
Errors .....	443
See Also .....	444
GetDevEndpoints .....	445
Request Syntax .....	445
Request Parameters .....	445
Response Syntax .....	446
Response Elements .....	446
Errors .....	447
See Also .....	447

---

GetJob .....	449
Request Syntax .....	449
Request Parameters .....	449
Response Syntax .....	449
Response Elements .....	478
Errors .....	479
See Also .....	479
GetJobBookmark .....	481
Request Syntax .....	481
Request Parameters .....	481
Response Syntax .....	482
Response Elements .....	482
Errors .....	482
See Also .....	483
GetJobRun .....	484
Request Syntax .....	484
Request Parameters .....	484
Response Syntax .....	485
Response Elements .....	486
Errors .....	486
See Also .....	487
GetJobRuns .....	488
Request Syntax .....	488
Request Parameters .....	488
Response Syntax .....	489
Response Elements .....	490
Errors .....	490
See Also .....	491
GetJobs .....	492
Request Syntax .....	492
Request Parameters .....	492
Response Syntax .....	492
Response Elements .....	522
Errors .....	522
See Also .....	523
GetMapping .....	524

---

Request Syntax .....	524
Request Parameters .....	525
Response Syntax .....	525
Response Elements .....	526
Errors .....	526
See Also .....	526
GetMLTaskRun .....	528
Request Syntax .....	528
Request Parameters .....	528
Response Syntax .....	529
Response Elements .....	529
Errors .....	531
See Also .....	532
GetMLTaskRuns .....	533
Request Syntax .....	533
Request Parameters .....	533
Response Syntax .....	534
Response Elements .....	535
Errors .....	536
See Also .....	536
GetMLTransform .....	538
Request Syntax .....	538
Request Parameters .....	538
Response Syntax .....	538
Response Elements .....	540
Errors .....	544
See Also .....	544
GetMLTransforms .....	546
Request Syntax .....	546
Request Parameters .....	546
Response Syntax .....	547
Response Elements .....	549
Errors .....	549
See Also .....	550
GetPartition .....	551
Request Syntax .....	551

Request Parameters .....	551
Response Syntax .....	552
Response Elements .....	554
Errors .....	554
See Also .....	555
<b>GetPartitionIndexes .....</b>	<b>556</b>
Request Syntax .....	556
Request Parameters .....	556
Response Syntax .....	557
Response Elements .....	558
Errors .....	558
See Also .....	559
<b>GetPartitions .....</b>	<b>560</b>
Request Syntax .....	560
Request Parameters .....	560
Response Syntax .....	564
Response Elements .....	566
Errors .....	566
See Also .....	567
<b>GetPlan .....</b>	<b>569</b>
Request Syntax .....	569
Request Parameters .....	570
Response Syntax .....	571
Response Elements .....	571
Errors .....	572
See Also .....	572
<b>GetRegistry .....</b>	<b>574</b>
Request Syntax .....	574
Request Parameters .....	574
Response Syntax .....	574
Response Elements .....	575
Errors .....	576
See Also .....	576
<b>GetResourcePolicies .....</b>	<b>578</b>
Request Syntax .....	578
Request Parameters .....	578

---

Response Syntax .....	578
Response Elements .....	579
Errors .....	579
See Also .....	580
GetResourcePolicy .....	581
Request Syntax .....	581
Request Parameters .....	581
Response Syntax .....	581
Response Elements .....	582
Errors .....	582
See Also .....	583
GetSchema .....	584
Request Syntax .....	584
Request Parameters .....	584
Response Syntax .....	584
Response Elements .....	585
Errors .....	587
See Also .....	588
GetSchemaByDefinition .....	589
Request Syntax .....	589
Request Parameters .....	589
Response Syntax .....	590
Response Elements .....	590
Errors .....	591
See Also .....	592
GetSchemaVersion .....	593
Request Syntax .....	593
Request Parameters .....	593
Response Syntax .....	594
Response Elements .....	594
Errors .....	596
See Also .....	596
GetSchemaVersionsDiff .....	598
Request Syntax .....	598
Request Parameters .....	598
Response Syntax .....	599



---

Response Elements .....	599
Errors .....	600
See Also .....	600
GetSecurityConfiguration .....	602
Request Syntax .....	602
Request Parameters .....	602
Response Syntax .....	602
Response Elements .....	603
Errors .....	603
See Also .....	604
GetSecurityConfigurations .....	605
Request Syntax .....	605
Request Parameters .....	605
Response Syntax .....	605
Response Elements .....	606
Errors .....	606
See Also .....	607
GetSession .....	608
Request Syntax .....	608
Request Parameters .....	608
Response Syntax .....	609
Response Elements .....	609
Errors .....	610
See Also .....	610
GetStatement .....	612
Request Syntax .....	612
Request Parameters .....	612
Response Syntax .....	613
Response Elements .....	613
Errors .....	614
See Also .....	614
GetTable .....	616
Request Syntax .....	616
Request Parameters .....	616
Response Syntax .....	617
Response Elements .....	620

---

Errors .....	620
See Also .....	621
GetTableOptimizer .....	623
Request Syntax .....	623
Request Parameters .....	623
Response Syntax .....	624
Response Elements .....	625
Errors .....	626
See Also .....	626
GetTables .....	628
Request Syntax .....	628
Request Parameters .....	628
Response Syntax .....	630
Response Elements .....	632
Errors .....	633
See Also .....	634
GetTableVersion .....	635
Request Syntax .....	635
Request Parameters .....	635
Response Syntax .....	636
Response Elements .....	639
Errors .....	639
See Also .....	640
GetTableVersions .....	641
Request Syntax .....	641
Request Parameters .....	641
Response Syntax .....	642
Response Elements .....	645
Errors .....	645
See Also .....	646
GetTags .....	647
Request Syntax .....	647
Request Parameters .....	647
Response Syntax .....	647
Response Elements .....	647
Errors .....	648

---

See Also .....	648
GetTrigger .....	650
Request Syntax .....	650
Request Parameters .....	650
Response Syntax .....	650
Response Elements .....	651
Errors .....	652
See Also .....	652
GetTriggers .....	654
Request Syntax .....	654
Request Parameters .....	654
Response Syntax .....	655
Response Elements .....	656
Errors .....	656
See Also .....	657
GetUnfilteredPartitionMetadata .....	658
Request Syntax .....	658
Request Parameters .....	658
Response Syntax .....	660
Response Elements .....	662
Errors .....	662
See Also .....	664
GetUnfilteredPartitionsMetadata .....	665
Request Syntax .....	665
Request Parameters .....	665
Response Syntax .....	670
Response Elements .....	671
Errors .....	672
See Also .....	673
GetUnfilteredTableMetadata .....	674
Request Syntax .....	674
Request Parameters .....	674
Response Syntax .....	678
Response Elements .....	681
Errors .....	682
See Also .....	683

---

GetUserDefinedFunction .....	685
Request Syntax .....	685
Request Parameters .....	685
Response Syntax .....	686
Response Elements .....	686
Errors .....	687
See Also .....	687
GetUserDefinedFunctions .....	689
Request Syntax .....	689
Request Parameters .....	689
Response Syntax .....	690
Response Elements .....	691
Errors .....	691
See Also .....	692
GetWorkflow .....	693
Request Syntax .....	693
Request Parameters .....	693
Response Syntax .....	693
Response Elements .....	699
Errors .....	700
See Also .....	700
GetWorkflowRun .....	702
Request Syntax .....	702
Request Parameters .....	702
Response Syntax .....	703
Response Elements .....	706
Errors .....	706
See Also .....	707
GetWorkflowRunProperties .....	708
Request Syntax .....	708
Request Parameters .....	708
Response Syntax .....	709
Response Elements .....	709
Errors .....	709
See Also .....	710
GetWorkflowRuns .....	711

---

Request Syntax .....	711
Request Parameters .....	711
Response Syntax .....	712
Response Elements .....	715
Errors .....	715
See Also .....	716
ImportCatalogToGlue .....	717
Request Syntax .....	717
Request Parameters .....	717
Response Elements .....	717
Errors .....	717
See Also .....	718
ListBlueprints .....	719
Request Syntax .....	719
Request Parameters .....	719
Response Syntax .....	720
Response Elements .....	720
Errors .....	720
See Also .....	721
ListColumnStatisticsTaskRuns .....	722
Request Syntax .....	722
Request Parameters .....	722
Response Syntax .....	722
Response Elements .....	723
Errors .....	723
See Also .....	723
ListCrawlers .....	725
Request Syntax .....	725
Request Parameters .....	725
Response Syntax .....	726
Response Elements .....	726
Errors .....	727
See Also .....	727
ListCrawls .....	728
Request Syntax .....	728
Request Parameters .....	728

---

Response Syntax .....	729
Response Elements .....	730
Errors .....	730
See Also .....	731
ListCustomEntityTypes .....	732
Request Syntax .....	732
Request Parameters .....	732
Response Syntax .....	733
Response Elements .....	733
Errors .....	733
See Also .....	734
ListDataQualityResults .....	735
Request Syntax .....	735
Request Parameters .....	735
Response Syntax .....	736
Response Elements .....	737
Errors .....	737
See Also .....	737
ListDataQualityRuleRecommendationRuns .....	739
Request Syntax .....	739
Request Parameters .....	739
Response Syntax .....	740
Response Elements .....	740
Errors .....	741
See Also .....	741
ListDataQualityRulesetEvaluationRuns .....	743
Request Syntax .....	743
Request Parameters .....	743
Response Syntax .....	744
Response Elements .....	744
Errors .....	745
See Also .....	745
ListDataQualityRulesets .....	747
Request Syntax .....	747
Request Parameters .....	747
Response Syntax .....	748

---

Response Elements .....	749
Errors .....	749
See Also .....	750
ListDevEndpoints .....	751
Request Syntax .....	751
Request Parameters .....	751
Response Syntax .....	752
Response Elements .....	752
Errors .....	753
See Also .....	753
ListJobs .....	755
Request Syntax .....	755
Request Parameters .....	755
Response Syntax .....	756
Response Elements .....	756
Errors .....	757
See Also .....	757
ListMLTransforms .....	759
Request Syntax .....	759
Request Parameters .....	759
Response Syntax .....	761
Response Elements .....	761
Errors .....	761
See Also .....	762
ListRegistries .....	763
Request Syntax .....	763
Request Parameters .....	763
Response Syntax .....	763
Response Elements .....	764
Errors .....	764
See Also .....	765
ListSchemas .....	766
Request Syntax .....	766
Request Parameters .....	766
Response Syntax .....	767
Response Elements .....	767

---

Errors .....	768
See Also .....	768
ListSchemaVersions .....	770
Request Syntax .....	770
Request Parameters .....	770
Response Syntax .....	771
Response Elements .....	771
Errors .....	772
See Also .....	772
ListSessions .....	774
Request Syntax .....	774
Request Parameters .....	774
Response Syntax .....	775
Response Elements .....	776
Errors .....	777
See Also .....	777
ListStatements .....	779
Request Syntax .....	779
Request Parameters .....	779
Response Syntax .....	780
Response Elements .....	780
Errors .....	781
See Also .....	782
ListTableOptimizerRuns .....	783
Request Syntax .....	783
Request Parameters .....	783
Response Syntax .....	784
Response Elements .....	785
Errors .....	786
See Also .....	787
ListTriggers .....	788
Request Syntax .....	788
Request Parameters .....	788
Response Syntax .....	789
Response Elements .....	789
Errors .....	790



See Also .....	790
ListWorkflows .....	792
Request Syntax .....	792
Request Parameters .....	792
Response Syntax .....	792
Response Elements .....	793
Errors .....	793
See Also .....	794
PutDataCatalogEncryptionSettings .....	795
Request Syntax .....	795
Request Parameters .....	795
Response Elements .....	796
Errors .....	796
See Also .....	796
PutResourcePolicy .....	798
Request Syntax .....	798
Request Parameters .....	798
Response Syntax .....	799
Response Elements .....	800
Errors .....	800
See Also .....	801
PutSchemaVersionMetadata .....	802
Request Syntax .....	802
Request Parameters .....	802
Response Syntax .....	803
Response Elements .....	803
Errors .....	805
See Also .....	806
PutWorkflowRunProperties .....	807
Request Syntax .....	807
Request Parameters .....	807
Response Elements .....	808
Errors .....	808
See Also .....	809
QuerySchemaVersionMetadata .....	810
Request Syntax .....	810

---

Request Parameters .....	810
Response Syntax .....	812
Response Elements .....	812
Errors .....	813
See Also .....	813
<b>RegisterSchemaVersion .....</b>	<b>815</b>
Request Syntax .....	815
Request Parameters .....	815
Response Syntax .....	816
Response Elements .....	816
Errors .....	817
See Also .....	818
<b>RemoveSchemaVersionMetadata .....</b>	<b>819</b>
Request Syntax .....	819
Request Parameters .....	819
Response Syntax .....	820
Response Elements .....	820
Errors .....	822
See Also .....	823
<b>ResetJobBookmark .....</b>	<b>824</b>
Request Syntax .....	824
Request Parameters .....	824
Response Syntax .....	825
Response Elements .....	825
Errors .....	825
See Also .....	826
<b>ResumeWorkflowRun .....</b>	<b>827</b>
Request Syntax .....	827
Request Parameters .....	827
Response Syntax .....	828
Response Elements .....	828
Errors .....	829
See Also .....	830
<b>RunStatement .....</b>	<b>831</b>
Request Syntax .....	831
Request Parameters .....	831

---

Response Syntax .....	832
Response Elements .....	832
Errors .....	832
See Also .....	833
SearchTables .....	835
Request Syntax .....	835
Request Parameters .....	835
Response Syntax .....	837
Response Elements .....	840
Errors .....	840
See Also .....	841
StartBlueprintRun .....	842
Request Syntax .....	842
Request Parameters .....	842
Response Syntax .....	843
Response Elements .....	843
Errors .....	843
See Also .....	844
StartColumnStatisticsTaskRun .....	846
Request Syntax .....	846
Request Parameters .....	846
Response Syntax .....	848
Response Elements .....	848
Errors .....	848
See Also .....	849
StartCrawler .....	851
Request Syntax .....	851
Request Parameters .....	851
Response Elements .....	851
Errors .....	851
See Also .....	852
StartCrawlerSchedule .....	853
Request Syntax .....	853
Request Parameters .....	853
Response Elements .....	853
Errors .....	853

---

See Also .....	854
StartDataQualityRuleRecommendationRun .....	855
Request Syntax .....	855
Request Parameters .....	855
Response Syntax .....	857
Response Elements .....	857
Errors .....	857
See Also .....	858
StartDataQualityRulesetEvaluationRun .....	859
Request Syntax .....	859
Request Parameters .....	860
Response Syntax .....	861
Response Elements .....	862
Errors .....	862
See Also .....	863
StartExportLabelsTaskRun .....	864
Request Syntax .....	864
Request Parameters .....	864
Response Syntax .....	865
Response Elements .....	865
Errors .....	865
See Also .....	866
StartImportLabelsTaskRun .....	867
Request Syntax .....	867
Request Parameters .....	867
Response Syntax .....	868
Response Elements .....	868
Errors .....	869
See Also .....	869
StartJobRun .....	871
Request Syntax .....	871
Request Parameters .....	871
Response Syntax .....	876
Response Elements .....	876
Errors .....	876
See Also .....	877

---

StartMLEvaluationTaskRun .....	878
Request Syntax .....	878
Request Parameters .....	878
Response Syntax .....	878
Response Elements .....	879
Errors .....	879
See Also .....	880
StartMLLabelingSetGenerationTaskRun .....	881
Request Syntax .....	881
Request Parameters .....	881
Response Syntax .....	882
Response Elements .....	882
Errors .....	882
See Also .....	883
StartTrigger .....	884
Request Syntax .....	884
Request Parameters .....	884
Response Syntax .....	884
Response Elements .....	884
Errors .....	885
See Also .....	886
StartWorkflowRun .....	887
Request Syntax .....	887
Request Parameters .....	887
Response Syntax .....	888
Response Elements .....	888
Errors .....	888
See Also .....	889
StopColumnStatisticsTaskRun .....	890
Request Syntax .....	890
Request Parameters .....	890
Response Elements .....	890
Errors .....	891
See Also .....	891
StopCrawler .....	893
Request Syntax .....	893

---

Request Parameters .....	893
Response Elements .....	893
Errors .....	893
See Also .....	894
StopCrawlerSchedule .....	895
Request Syntax .....	895
Request Parameters .....	895
Response Elements .....	895
Errors .....	895
See Also .....	896
StopSession .....	897
Request Syntax .....	897
Request Parameters .....	897
Response Syntax .....	898
Response Elements .....	898
Errors .....	898
See Also .....	899
StopTrigger .....	900
Request Syntax .....	900
Request Parameters .....	900
Response Syntax .....	900
Response Elements .....	900
Errors .....	901
See Also .....	902
StopWorkflowRun .....	903
Request Syntax .....	903
Request Parameters .....	903
Response Elements .....	904
Errors .....	904
See Also .....	904
TagResource .....	906
Request Syntax .....	906
Request Parameters .....	906
Response Elements .....	907
Errors .....	907
See Also .....	907

---

UntagResource .....	909
Request Syntax .....	909
Request Parameters .....	909
Response Elements .....	910
Errors .....	910
See Also .....	910
UpdateBlueprint .....	912
Request Syntax .....	912
Request Parameters .....	912
Response Syntax .....	913
Response Elements .....	913
Errors .....	913
See Also .....	914
UpdateClassifier .....	915
Request Syntax .....	915
Request Parameters .....	915
Response Elements .....	916
Errors .....	916
See Also .....	917
UpdateColumnStatisticsForPartition .....	918
Request Syntax .....	918
Request Parameters .....	919
Response Syntax .....	921
Response Elements .....	922
Errors .....	922
See Also .....	923
UpdateColumnStatisticsForTable .....	924
Request Syntax .....	924
Request Parameters .....	925
Response Syntax .....	926
Response Elements .....	928
Errors .....	928
See Also .....	929
UpdateConnection .....	930
Request Syntax .....	930
Request Parameters .....	930

Response Elements .....	931
Errors .....	931
See Also .....	932
UpdateCrawler .....	933
Request Syntax .....	933
Request Parameters .....	935
Response Elements .....	938
Errors .....	938
See Also .....	939
UpdateCrawlerSchedule .....	940
Request Syntax .....	940
Request Parameters .....	940
Response Elements .....	940
Errors .....	941
See Also .....	941
UpdateDatabase .....	943
Request Syntax .....	943
Request Parameters .....	943
Response Elements .....	944
Errors .....	944
See Also .....	945
UpdateDataQualityRuleset .....	947
Request Syntax .....	947
Request Parameters .....	947
Response Syntax .....	948
Response Elements .....	948
Errors .....	949
See Also .....	950
UpdateDevEndpoint .....	951
Request Syntax .....	951
Request Parameters .....	951
Response Elements .....	953
Errors .....	953
See Also .....	954
UpdateJob .....	955
Request Syntax .....	955



Request Parameters .....	984
Response Syntax .....	984
Response Elements .....	985
Errors .....	985
See Also .....	986
UpdateJobFromSourceControl .....	987
Request Syntax .....	987
Request Parameters .....	987
Response Syntax .....	990
Response Elements .....	990
Errors .....	990
See Also .....	991
UpdateMLTransform .....	992
Request Syntax .....	992
Request Parameters .....	992
Response Syntax .....	995
Response Elements .....	995
Errors .....	996
See Also .....	997
UpdatePartition .....	998
Request Syntax .....	998
Request Parameters .....	999
Response Elements .....	1001
Errors .....	1001
See Also .....	1001
UpdateRegistry .....	1003
Request Syntax .....	1003
Request Parameters .....	1003
Response Syntax .....	1004
Response Elements .....	1004
Errors .....	1004
See Also .....	1005
UpdateSchema .....	1006
Request Syntax .....	1006
Request Parameters .....	1006
Response Syntax .....	1007

Response Elements .....	1008
Errors .....	1008
See Also .....	1009
UpdateSourceControlFromJob .....	1011
Request Syntax .....	1011
Request Parameters .....	1011
Response Syntax .....	1014
Response Elements .....	1014
Errors .....	1014
See Also .....	1015
UpdateTable .....	1016
Request Syntax .....	1016
Request Parameters .....	1018
Response Elements .....	1019
Errors .....	1019
See Also .....	1021
UpdateTableOptimizer .....	1022
Request Syntax .....	1022
Request Parameters .....	1022
Response Elements .....	1023
Errors .....	1023
See Also .....	1024
UpdateTrigger .....	1025
Request Syntax .....	1025
Request Parameters .....	1026
Response Syntax .....	1026
Response Elements .....	1027
Errors .....	1027
See Also .....	1028
UpdateUserDefinedFunction .....	1030
Request Syntax .....	1030
Request Parameters .....	1030
Response Elements .....	1031
Errors .....	1031
See Also .....	1032
UpdateWorkflow .....	1033

Request Syntax .....	1033
Request Parameters .....	1033
Response Syntax .....	1034
Response Elements .....	1034
Errors .....	1035
See Also .....	1035
<b>Data Types .....</b>	<b>1037</b>
Action .....	1048
Contents .....	1048
See Also .....	1049
Aggregate .....	1051
Contents .....	1051
See Also .....	1052
AggregateOperation .....	1053
Contents .....	1053
See Also .....	1053
AmazonRedshiftAdvancedOption .....	1055
Contents .....	1055
See Also .....	1055
AmazonRedshiftNodeData .....	1056
Contents .....	1056
See Also .....	1061
AmazonRedshiftSource .....	1062
Contents .....	1062
See Also .....	1062
AmazonRedshiftTarget .....	1063
Contents .....	1063
See Also .....	1063
ApplyMapping .....	1065
Contents .....	1065
See Also .....	1065
AthenaConnectorSource .....	1067
Contents .....	1067
See Also .....	1068
AuditContext .....	1070
Contents .....	1070

See Also .....	1070
BackfillError .....	1072
Contents .....	1072
See Also .....	1073
BasicCatalogTarget .....	1074
Contents .....	1074
See Also .....	1075
BatchGetTableOptimizerEntry .....	1076
Contents .....	1076
See Also .....	1077
BatchGetTableOptimizerError .....	1078
Contents .....	1078
See Also .....	1079
BatchStopJobRunError .....	1080
Contents .....	1080
See Also .....	1080
BatchStopJobRunSuccessfulSubmission .....	1082
Contents .....	1082
See Also .....	1082
BatchTableOptimizer .....	1083
Contents .....	1083
See Also .....	1084
BatchUpdatePartitionFailureEntry .....	1085
Contents .....	1085
See Also .....	1085
BatchUpdatePartitionRequestEntry .....	1086
Contents .....	1086
See Also .....	1086
BinaryColumnStatisticsData .....	1087
Contents .....	1087
See Also .....	1087
Blueprint .....	1089
Contents .....	1089
See Also .....	1091
BlueprintDetails .....	1092
Contents .....	1092

---

See Also .....	1092
BlueprintRun .....	1093
Contents .....	1093
See Also .....	1095
BooleanColumnStatisticsData .....	1096
Contents .....	1096
See Also .....	1096
CatalogDeltaSource .....	1098
Contents .....	1098
See Also .....	1099
CatalogEntry .....	1100
Contents .....	1100
See Also .....	1100
CatalogHudiSource .....	1101
Contents .....	1101
See Also .....	1102
CatalogImportStatus .....	1103
Contents .....	1103
See Also .....	1103
CatalogKafkaSource .....	1105
Contents .....	1105
See Also .....	1106
CatalogKinesisSource .....	1107
Contents .....	1107
See Also .....	1108
CatalogSchemaChangePolicy .....	1109
Contents .....	1109
See Also .....	1109
CatalogSource .....	1110
Contents .....	1110
See Also .....	1110
CatalogTarget .....	1112
Contents .....	1112
See Also .....	1113
Classifier .....	1114
Contents .....	1114

---

See Also .....	1115
CloudWatchEncryption .....	1116
Contents .....	1116
See Also .....	1116
CodeGenConfigurationNode .....	1117
Contents .....	1117
See Also .....	1129
CodeGenEdge .....	1130
Contents .....	1130
See Also .....	1130
CodeGenNode .....	1132
Contents .....	1132
See Also .....	1133
CodeGenNodeArg .....	1134
Contents .....	1134
See Also .....	1134
Column .....	1135
Contents .....	1135
See Also .....	1136
ColumnError .....	1137
Contents .....	1137
See Also .....	1137
ColumnImportance .....	1138
Contents .....	1138
See Also .....	1138
ColumnRowFilter .....	1139
Contents .....	1139
See Also .....	1139
ColumnStatistics .....	1140
Contents .....	1140
See Also .....	1141
ColumnStatisticsData .....	1142
Contents .....	1142
See Also .....	1143
ColumnStatisticsError .....	1144
Contents .....	1144

See Also .....	1144
ColumnStatisticsTaskRun .....	1145
Contents .....	1145
See Also .....	1149
Condition .....	1150
Contents .....	1150
See Also .....	1151
ConfusionMatrix .....	1152
Contents .....	1152
See Also .....	1153
Connection .....	1154
Contents .....	1154
See Also .....	1159
ConnectionInput .....	1160
Contents .....	1160
See Also .....	1163
ConnectionPasswordEncryption .....	1165
Contents .....	1165
See Also .....	1166
ConnectionsList .....	1167
Contents .....	1167
See Also .....	1167
ConnectorDataSource .....	1168
Contents .....	1168
See Also .....	1169
ConnectorDataTarget .....	1170
Contents .....	1170
See Also .....	1171
Crawl .....	1172
Contents .....	1172
See Also .....	1173
Crawler .....	1174
Contents .....	1174
See Also .....	1178
CrawlerHistory .....	1179
Contents .....	1179

---

See Also .....	1181
CrawlerMetrics .....	1182
Contents .....	1182
See Also .....	1183
CrawlerNodeDetails .....	1185
Contents .....	1185
See Also .....	1185
CrawlerTargets .....	1186
Contents .....	1186
See Also .....	1187
CrawlsFilter .....	1188
Contents .....	1188
See Also .....	1189
CreateCsvClassifierRequest .....	1190
Contents .....	1190
See Also .....	1192
CreateGrokClassifierRequest .....	1193
Contents .....	1193
See Also .....	1194
CreateJsonClassifierRequest .....	1195
Contents .....	1195
See Also .....	1195
CreateXMLClassifierRequest .....	1196
Contents .....	1196
See Also .....	1196
CsvClassifier .....	1198
Contents .....	1198
See Also .....	1201
CustomCode .....	1202
Contents .....	1202
See Also .....	1203
CustomEntityType .....	1204
Contents .....	1204
See Also .....	1205
Database .....	1206
Contents .....	1206



---

See Also .....	1208
DatabasIdentifier .....	1209
Contents .....	1209
See Also .....	1210
DatabasInput .....	1211
Contents .....	1211
See Also .....	1212
DataCatalogEncryptionSettings .....	1214
Contents .....	1214
See Also .....	1214
DataLakePrincipal .....	1215
Contents .....	1215
See Also .....	1215
DataQualityAnalyzerResult .....	1216
Contents .....	1216
See Also .....	1217
DataQualityEvaluationRunAdditionalRunOptions .....	1218
Contents .....	1218
See Also .....	1218
DataQualityMetricValues .....	1219
Contents .....	1219
See Also .....	1219
DataQualityObservation .....	1221
Contents .....	1221
See Also .....	1221
DataQualityResult .....	1222
Contents .....	1222
See Also .....	1225
DataQualityResultDescription .....	1226
Contents .....	1226
See Also .....	1227
DataQualityResultFilterCriteria .....	1228
Contents .....	1228
See Also .....	1229
DataQualityRuleRecommendationRunDescription .....	1230
Contents .....	1230

See Also .....	1231
DataQualityRuleRecommendationRunFilter .....	1232
Contents .....	1232
See Also .....	1232
DataQualityRuleResult .....	1233
Contents .....	1233
See Also .....	1234
DataQualityRulesetEvaluationRunDescription .....	1235
Contents .....	1235
See Also .....	1236
DataQualityRulesetEvaluationRunFilter .....	1237
Contents .....	1237
See Also .....	1237
DataQualityRulesetFilterCriteria .....	1238
Contents .....	1238
See Also .....	1239
DataQualityRulesetListDetails .....	1240
Contents .....	1240
See Also .....	1241
DataQualityTargetTable .....	1242
Contents .....	1242
See Also .....	1243
DataSource .....	1244
Contents .....	1244
See Also .....	1244
Datatype .....	1245
Contents .....	1245
See Also .....	1245
DateColumnStatisticsData .....	1246
Contents .....	1246
See Also .....	1246
DecimalColumnStatisticsData .....	1248
Contents .....	1248
See Also .....	1248
DecimalNumber .....	1250
Contents .....	1250

---

See Also .....	1250
DeltaTarget .....	1251
Contents .....	1251
See Also .....	1251
DevEndpoint .....	1253
Contents .....	1253
See Also .....	1259
DevEndpointCustomLibraries .....	1260
Contents .....	1260
See Also .....	1260
DirectJDBCSource .....	1262
Contents .....	1262
See Also .....	1263
DirectKafkaSource .....	1264
Contents .....	1264
See Also .....	1265
DirectKinesisSource .....	1266
Contents .....	1266
See Also .....	1267
DirectSchemaChangePolicy .....	1268
Contents .....	1268
See Also .....	1269
DoubleClickStatisticsData .....	1270
Contents .....	1270
See Also .....	1270
DQResultsPublishingOptions .....	1272
Contents .....	1272
See Also .....	1273
DQStopJobOnFailureOptions .....	1274
Contents .....	1274
See Also .....	1274
DropDuplicates .....	1275
Contents .....	1275
See Also .....	1275
DropFields .....	1277
Contents .....	1277

---

See Also .....	1277
DropNullFields .....	1279
Contents .....	1279
See Also .....	1280
DynamicTransform .....	1281
Contents .....	1281
See Also .....	1283
DynamoDBCatalogSource .....	1284
Contents .....	1284
See Also .....	1284
DynamoDBTarget .....	1286
Contents .....	1286
See Also .....	1287
Edge .....	1288
Contents .....	1288
See Also .....	1288
EncryptionAtRest .....	1289
Contents .....	1289
See Also .....	1289
EncryptionConfiguration .....	1291
Contents .....	1291
See Also .....	1291
ErrorDetail .....	1292
Contents .....	1292
See Also .....	1292
ErrorDetails .....	1293
Contents .....	1293
See Also .....	1293
EvaluateDataQuality .....	1294
Contents .....	1294
See Also .....	1295
EvaluateDataQualityMultiFrame .....	1296
Contents .....	1296
See Also .....	1297
EvaluationMetrics .....	1298
Contents .....	1298

---

See Also .....	1298
EventBatchingCondition .....	1299
Contents .....	1299
See Also .....	1299
ExecutionProperty .....	1300
Contents .....	1300
See Also .....	1300
ExportLabelsTaskRunProperties .....	1301
Contents .....	1301
See Also .....	1301
FederatedDatabase .....	1302
Contents .....	1302
See Also .....	1302
FederatedTable .....	1303
Contents .....	1303
See Also .....	1304
FillMissingValues .....	1305
Contents .....	1305
See Also .....	1306
Filter .....	1307
Contents .....	1307
See Also .....	1308
FilterExpression .....	1309
Contents .....	1309
See Also .....	1309
FilterValue .....	1310
Contents .....	1310
See Also .....	1310
FindMatchesMetrics .....	1311
Contents .....	1311
See Also .....	1312
FindMatchesParameters .....	1314
Contents .....	1314
See Also .....	1315
FindMatchesTaskRunProperties .....	1316
Contents .....	1316

---

See Also .....	1317
GetConnectionsFilter .....	1318
Contents .....	1318
See Also .....	1318
GluePolicy .....	1319
Contents .....	1319
See Also .....	1320
GlueSchema .....	1321
Contents .....	1321
See Also .....	1321
GlueStudioSchemaColumn .....	1322
Contents .....	1322
See Also .....	1322
GlueTable .....	1323
Contents .....	1323
See Also .....	1324
GovernedCatalogSource .....	1325
Contents .....	1325
See Also .....	1326
GovernedCatalogTarget .....	1327
Contents .....	1327
See Also .....	1328
GrokClassifier .....	1329
Contents .....	1329
See Also .....	1330
HudiTarget .....	1331
Contents .....	1331
See Also .....	1332
IcebergInput .....	1333
Contents .....	1333
See Also .....	1333
IcebergTarget .....	1334
Contents .....	1334
See Also .....	1334
ImportLabelsTaskRunProperties .....	1336
Contents .....	1336

---

See Also .....	1336
JDBCConnectorOptions .....	1337
Contents .....	1337
See Also .....	1339
JDBCConnectorSource .....	1340
Contents .....	1340
See Also .....	1341
JDBCConnectorTarget .....	1343
Contents .....	1343
See Also .....	1345
JdbcTarget .....	1346
Contents .....	1346
See Also .....	1347
Job .....	1348
Contents .....	1348
See Also .....	1354
JobBookmarkEntry .....	1356
Contents .....	1356
See Also .....	1357
JobBookmarksEncryption .....	1358
Contents .....	1358
See Also .....	1358
JobCommand .....	1359
Contents .....	1359
See Also .....	1360
JobNodeDetails .....	1361
Contents .....	1361
See Also .....	1361
JobRun .....	1362
Contents .....	1362
See Also .....	1369
JobUpdate .....	1370
Contents .....	1370
See Also .....	1376
Join .....	1377
Contents .....	1377

---

See Also .....	1378
JoinColumn .....	1379
Contents .....	1379
See Also .....	1379
JsonClassifier .....	1380
Contents .....	1380
See Also .....	1381
KafkaStreamingSourceOptions .....	1382
Contents .....	1382
See Also .....	1387
KeySchemaElement .....	1388
Contents .....	1388
See Also .....	1388
KinesisStreamingSourceOptions .....	1389
Contents .....	1389
See Also .....	1394
LabelingSetGenerationTaskRunProperties .....	1395
Contents .....	1395
See Also .....	1395
LakeFormationConfiguration .....	1396
Contents .....	1396
See Also .....	1396
LastActiveDefinition .....	1397
Contents .....	1397
See Also .....	1398
LastCrawlInfo .....	1399
Contents .....	1399
See Also .....	1400
LineageConfiguration .....	1401
Contents .....	1401
See Also .....	1401
Location .....	1402
Contents .....	1402
See Also .....	1402
LongColumnStatisticsData .....	1404
Contents .....	1404



See Also .....	1404
Mapping .....	1406
Contents .....	1406
See Also .....	1407
MappingEntry .....	1409
Contents .....	1409
See Also .....	1410
Merge .....	1411
Contents .....	1411
See Also .....	1412
MetadataInfo .....	1413
Contents .....	1413
See Also .....	1413
MetadataKeyValuePair .....	1415
Contents .....	1415
See Also .....	1415
MetricBasedObservation .....	1416
Contents .....	1416
See Also .....	1416
MicrosoftSQLServerCatalogSource .....	1418
Contents .....	1418
See Also .....	1418
MicrosoftSQLServerCatalogTarget .....	1420
Contents .....	1420
See Also .....	1421
MLTransform .....	1422
Contents .....	1422
See Also .....	1427
MLUserDataEncryption .....	1428
Contents .....	1428
See Also .....	1428
MongoDBTarget .....	1429
Contents .....	1429
See Also .....	1429
MySQLCatalogSource .....	1431
Contents .....	1431

See Also .....	1431
MySQLCatalogTarget .....	1433
Contents .....	1433
See Also .....	1434
Node .....	1435
Contents .....	1435
See Also .....	1436
NotificationProperty .....	1437
Contents .....	1437
See Also .....	1437
NullCheckBoxList .....	1438
Contents .....	1438
See Also .....	1438
NullValueField .....	1439
Contents .....	1439
See Also .....	1439
OpenTableFormatInput .....	1440
Contents .....	1440
See Also .....	1440
Option .....	1441
Contents .....	1441
See Also .....	1441
OracleSQLCatalogSource .....	1443
Contents .....	1443
See Also .....	1443
OracleSQLCatalogTarget .....	1445
Contents .....	1445
See Also .....	1446
Order .....	1447
Contents .....	1447
See Also .....	1447
OtherMetadataValueListItem .....	1448
Contents .....	1448
See Also .....	1448
Partition .....	1449
Contents .....	1449

---

See Also .....	1451
PartitionError .....	1452
Contents .....	1452
See Also .....	1452
PartitionIndex .....	1453
Contents .....	1453
See Also .....	1453
PartitionIndexDescriptor .....	1454
Contents .....	1454
See Also .....	1455
PartitionInput .....	1456
Contents .....	1456
See Also .....	1457
PartitionValueList .....	1458
Contents .....	1458
See Also .....	1458
PhysicalConnectionRequirements .....	1459
Contents .....	1459
See Also .....	1460
PIIDetection .....	1461
Contents .....	1461
See Also .....	1463
PostgreSQLCatalogSource .....	1464
Contents .....	1464
See Also .....	1464
PostgreSQLCatalogTarget .....	1466
Contents .....	1466
See Also .....	1467
Predecessor .....	1468
Contents .....	1468
See Also .....	1468
Predicate .....	1469
Contents .....	1469
See Also .....	1469
PrincipalPermissions .....	1470
Contents .....	1470

---

See Also .....	1470
PropertyPredicate .....	1471
Contents .....	1471
See Also .....	1471
QuerySessionContext .....	1473
Contents .....	1473
See Also .....	1474
Recipe .....	1475
Contents .....	1475
See Also .....	1475
RecipeReference .....	1477
Contents .....	1477
See Also .....	1477
RecrawlPolicy .....	1478
Contents .....	1478
See Also .....	1478
RedshiftSource .....	1479
Contents .....	1479
See Also .....	1480
RedshiftTarget .....	1481
Contents .....	1481
See Also .....	1482
RegistryId .....	1484
Contents .....	1484
See Also .....	1484
RegistryListItem .....	1485
Contents .....	1485
See Also .....	1486
RelationalCatalogSource .....	1487
Contents .....	1487
See Also .....	1487
RenameField .....	1489
Contents .....	1489
See Also .....	1490
ResourceUri .....	1491
Contents .....	1491

See Also .....	1491
RunMetrics .....	1492
Contents .....	1492
See Also .....	1492
S3CatalogDeltaSource .....	1494
Contents .....	1494
See Also .....	1495
S3CatalogHudiSource .....	1496
Contents .....	1496
See Also .....	1497
S3CatalogSource .....	1498
Contents .....	1498
See Also .....	1499
S3CatalogTarget .....	1500
Contents .....	1500
See Also .....	1501
S3CsvSource .....	1502
Contents .....	1502
See Also .....	1506
S3DeltaCatalogTarget .....	1507
Contents .....	1507
See Also .....	1508
S3DeltaDirectTarget .....	1510
Contents .....	1510
See Also .....	1512
S3DeltaSource .....	1513
Contents .....	1513
See Also .....	1514
S3DirectSourceAdditionalOptions .....	1515
Contents .....	1515
See Also .....	1515
S3DirectTarget .....	1517
Contents .....	1517
See Also .....	1518
S3Encryption .....	1519
Contents .....	1519

See Also .....	1519
S3GlueParquetTarget .....	1520
Contents .....	1520
See Also .....	1521
S3HudiCatalogTarget .....	1522
Contents .....	1522
See Also .....	1523
S3HudiDirectTarget .....	1525
Contents .....	1525
See Also .....	1527
S3HudiSource .....	1528
Contents .....	1528
See Also .....	1529
S3JsonSource .....	1530
Contents .....	1530
See Also .....	1533
S3ParquetSource .....	1534
Contents .....	1534
See Also .....	1536
S3SourceAdditionalOptions .....	1537
Contents .....	1537
See Also .....	1537
S3Target .....	1538
Contents .....	1538
See Also .....	1539
Schedule .....	1540
Contents .....	1540
See Also .....	1540
SchemaChangePolicy .....	1541
Contents .....	1541
See Also .....	1541
SchemaColumn .....	1542
Contents .....	1542
See Also .....	1542
Schemald .....	1543
Contents .....	1543

---

See Also .....	1544
SchemaListItem .....	1545
Contents .....	1545
See Also .....	1546
SchemaReference .....	1547
Contents .....	1547
See Also .....	1547
SchemaVersionErrorItem .....	1549
Contents .....	1549
See Also .....	1549
SchemaVersionListItem .....	1550
Contents .....	1550
See Also .....	1551
SchemaVersionNumber .....	1552
Contents .....	1552
See Also .....	1552
SecurityConfiguration .....	1553
Contents .....	1553
See Also .....	1553
Segment .....	1555
Contents .....	1555
See Also .....	1555
SelectFields .....	1556
Contents .....	1556
See Also .....	1556
SelectFromCollection .....	1558
Contents .....	1558
See Also .....	1558
SerDelInfo .....	1560
Contents .....	1560
See Also .....	1561
Session .....	1562
Contents .....	1562
See Also .....	1566
SessionCommand .....	1567
Contents .....	1567

---

See Also .....	1567
SkewedInfo .....	1568
Contents .....	1568
See Also .....	1568
SnowflakeNodeData .....	1570
Contents .....	1570
See Also .....	1574
SnowflakeSource .....	1575
Contents .....	1575
See Also .....	1575
SnowflakeTarget .....	1576
Contents .....	1576
See Also .....	1576
SortCriterion .....	1578
Contents .....	1578
See Also .....	1578
SourceControlDetails .....	1579
Contents .....	1579
See Also .....	1580
SparkConnectorSource .....	1582
Contents .....	1582
See Also .....	1583
SparkConnectorTarget .....	1584
Contents .....	1584
See Also .....	1585
SparkSQL .....	1587
Contents .....	1587
See Also .....	1588
Spigot .....	1589
Contents .....	1589
See Also .....	1590
SplitFields .....	1591
Contents .....	1591
See Also .....	1592
SqlAlias .....	1593
Contents .....	1593



See Also .....	1593
StartingEventBatchCondition .....	1594
Contents .....	1594
See Also .....	1594
Statement .....	1595
Contents .....	1595
See Also .....	1596
StatementOutput .....	1597
Contents .....	1597
See Also .....	1598
StatementOutputData .....	1599
Contents .....	1599
See Also .....	1599
StorageDescriptor .....	1600
Contents .....	1600
See Also .....	1603
StreamingDataPreviewOptions .....	1604
Contents .....	1604
See Also .....	1604
StringColumnStatisticsData .....	1605
Contents .....	1605
See Also .....	1606
SupportedDialect .....	1607
Contents .....	1607
See Also .....	1607
Table .....	1608
Contents .....	1608
See Also .....	1613
TableError .....	1614
Contents .....	1614
See Also .....	1614
TableIdentifier .....	1615
Contents .....	1615
See Also .....	1616
TableInput .....	1617
Contents .....	1617

See Also .....	1620
TableOptimizer .....	1621
Contents .....	1621
See Also .....	1621
TableOptimizerConfiguration .....	1623
Contents .....	1623
See Also .....	1623
TableOptimizerRun .....	1624
Contents .....	1624
See Also .....	1625
TableVersion .....	1626
Contents .....	1626
See Also .....	1626
TableVersionError .....	1627
Contents .....	1627
See Also .....	1627
TaskRun .....	1629
Contents .....	1629
See Also .....	1631
TaskRunFilterCriteria .....	1632
Contents .....	1632
See Also .....	1633
TaskRunProperties .....	1634
Contents .....	1634
See Also .....	1635
TaskRunSortCriteria .....	1636
Contents .....	1636
See Also .....	1636
TransformConfigParameter .....	1637
Contents .....	1637
See Also .....	1638
TransformEncryption .....	1639
Contents .....	1639
See Also .....	1639
TransformFilterCriteria .....	1640
Contents .....	1640

See Also .....	1642
TransformParameters .....	1643
Contents .....	1643
See Also .....	1643
TransformSortCriteria .....	1644
Contents .....	1644
See Also .....	1644
Trigger .....	1645
Contents .....	1645
See Also .....	1647
TriggerNodeDetails .....	1648
Contents .....	1648
See Also .....	1648
TriggerUpdate .....	1649
Contents .....	1649
See Also .....	1650
UnfilteredPartition .....	1651
Contents .....	1651
See Also .....	1651
Union .....	1653
Contents .....	1653
See Also .....	1654
UpdateCsvClassifierRequest .....	1655
Contents .....	1655
See Also .....	1657
UpdateGrokClassifierRequest .....	1658
Contents .....	1658
See Also .....	1659
UpdateJsonClassifierRequest .....	1660
Contents .....	1660
See Also .....	1660
UpdateXMLClassifierRequest .....	1661
Contents .....	1661
See Also .....	1661
UpsertRedshiftTargetOptions .....	1663
Contents .....	1663

---

See Also .....	1663
UserDefinedFunction .....	1665
Contents .....	1665
See Also .....	1667
UserDefinedFunctionInput .....	1668
Contents .....	1668
See Also .....	1669
ViewDefinition .....	1670
Contents .....	1670
See Also .....	1671
ViewRepresentation .....	1672
Contents .....	1672
See Also .....	1673
Workflow .....	1674
Contents .....	1674
See Also .....	1676
WorkflowGraph .....	1677
Contents .....	1677
See Also .....	1677
WorkflowRun .....	1678
Contents .....	1678
See Also .....	1680
WorkflowRunStatistics .....	1681
Contents .....	1681
See Also .....	1682
XMLClassifier .....	1683
Contents .....	1683
See Also .....	1684
<b>Common Parameters .....</b>	<b>1685</b>
<b>Common Errors .....</b>	<b>1688</b>

# Welcome to the AWS Glue Web API Reference

AWS Glue is a fully managed ETL (extract, transform, and load) service that makes it simple and cost-effective to categorize your data, clean it, enrich it, and move it reliably between various data stores. AWS Glue consists of a central metadata repository known as the AWS Glue Data Catalog, an ETL engine that automatically generates Python code, and a flexible scheduler that handles dependency resolution, job monitoring, and retries. AWS Glue is serverless, so there's no infrastructure to set up or manage.

# Actions

The following actions are supported:

- [BatchCreatePartition](#)
- [BatchDeleteConnection](#)
- [BatchDeletePartition](#)
- [BatchDeleteTable](#)
- [BatchDeleteTableVersion](#)
- [BatchGetBlueprints](#)
- [BatchGetCrawlers](#)
- [BatchGetCustomEntityTypes](#)
- [BatchGetDataQualityResult](#)
- [BatchGetDevEndpoints](#)
- [BatchGetJobs](#)
- [BatchGetPartition](#)
- [BatchGetTableOptimizer](#)
- [BatchGetTriggers](#)
- [BatchGetWorkflows](#)
- [BatchStopJobRun](#)
- [BatchUpdatePartition](#)
- [CancelDataQualityRuleRecommendationRun](#)
- [CancelDataQualityRulesetEvaluationRun](#)
- [CancelMLTaskRun](#)
- [CancelStatement](#)
- [CheckSchemaVersionValidity](#)
- [CreateBlueprint](#)
- [CreateClassifier](#)
- [CreateConnection](#)
- [CreateCrawler](#)
- [CreateCustomEntityType](#)

- [CreateDatabase](#)
- [CreateDataQualityRuleset](#)
- [CreateDevEndpoint](#)
- [CreateJob](#)
- [CreateMLTransform](#)
- [CreatePartition](#)
- [CreatePartitionIndex](#)
- [CreateRegistry](#)
- [CreateSchema](#)
- [CreateScript](#)
- [CreateSecurityConfiguration](#)
- [CreateSession](#)
- [CreateTable](#)
- [CreateTableOptimizer](#)
- [CreateTrigger](#)
- [CreateUserDefinedFunction](#)
- [CreateWorkflow](#)
- [DeleteBlueprint](#)
- [DeleteClassifier](#)
- [DeleteColumnStatisticsForPartition](#)
- [DeleteColumnStatisticsForTable](#)
- [DeleteConnection](#)
- [DeleteCrawler](#)
- [DeleteCustomEntityType](#)
- [DeleteDatabase](#)
- [DeleteDataQualityRuleset](#)
- [DeleteDevEndpoint](#)
- [DeleteJob](#)
- [DeleteMLTransform](#)
- [DeletePartition](#)

- [DeletePartitionIndex](#)
- [DeleteRegistry](#)
- [DeleteResourcePolicy](#)
- [DeleteSchema](#)
- [DeleteSchemaVersions](#)
- [DeleteSecurityConfiguration](#)
- [DeleteSession](#)
- [DeleteTable](#)
- [DeleteTableOptimizer](#)
- [DeleteTableVersion](#)
- [DeleteTrigger](#)
- [DeleteUserDefinedFunction](#)
- [DeleteWorkflow](#)
- [GetBlueprint](#)
- [GetBlueprintRun](#)
- [GetBlueprintRuns](#)
- [GetCatalogImportStatus](#)
- [GetClassifier](#)
- [GetClassifiers](#)
- [GetColumnStatisticsForPartition](#)
- [GetColumnStatisticsForTable](#)
- [GetColumnStatisticsTaskRun](#)
- [GetColumnStatisticsTaskRuns](#)
- [GetConnection](#)
- [GetConnections](#)
- [GetCrawler](#)
- [GetCrawlerMetrics](#)
- [GetCrawlers](#)
- [GetCustomEntityType](#)
- [GetDatabase](#)



- [GetDatabases](#)
- [GetDataCatalogEncryptionSettings](#)
- [GetDataflowGraph](#)
- [GetDataQualityResult](#)
- [GetDataQualityRuleRecommendationRun](#)
- [GetDataQualityRuleset](#)
- [GetDataQualityRulesetEvaluationRun](#)
- [GetDevEndpoint](#)
- [GetDevEndpoints](#)
- [GetJob](#)
- [GetJobBookmark](#)
- [GetJobRun](#)
- [GetJobRuns](#)
- [GetJobs](#)
- [GetMapping](#)
- [GetMLTaskRun](#)
- [GetMLTaskRuns](#)
- [GetMLTransform](#)
- [GetMLTransforms](#)
- [GetPartition](#)
- [GetPartitionIndexes](#)
- [GetPartitions](#)
- [GetPlan](#)
- [GetRegistry](#)
- [GetResourcePolicies](#)
- [GetResourcePolicy](#)
- [GetSchema](#)
- [GetSchemaByDefinition](#)
- [GetSchemaVersion](#)
- [GetSchemaVersionsDiff](#)

- [GetSecurityConfiguration](#)
- [GetSecurityConfigurations](#)
- [GetSession](#)
- [GetStatement](#)
- [GetTable](#)
- [GetTableOptimizer](#)
- [GetTables](#)
- [GetTableVersion](#)
- [GetTableVersions](#)
- [GetTags](#)
- [GetTrigger](#)
- [GetTriggers](#)
- [GetUnfilteredPartitionMetadata](#)
- [GetUnfilteredPartitionsMetadata](#)
- [GetUnfilteredTableMetadata](#)
- [GetUserDefinedFunction](#)
- [GetUserDefinedFunctions](#)
- [GetWorkflow](#)
- [GetWorkflowRun](#)
- [GetWorkflowRunProperties](#)
- [GetWorkflowRuns](#)
- [ImportCatalogToGlue](#)
- [ListBlueprints](#)
- [ListColumnStatisticsTaskRuns](#)
- [ListCrawlers](#)
- [ListCrawls](#)
- [ListCustomEntityTypes](#)
- [ListDataQualityResults](#)
- [ListDataQualityRuleRecommendationRuns](#)
- [ListDataQualityRulesetEvaluationRuns](#)

- [ListDataQualityRulesets](#)
- [ListDevEndpoints](#)
- [ListJobs](#)
- [ListMLTransforms](#)
- [ListRegistries](#)
- [ListSchemas](#)
- [ListSchemaVersions](#)
- [ListSessions](#)
- [ListStatements](#)
- [ListTableOptimizerRuns](#)
- [ListTriggers](#)
- [ListWorkflows](#)
- [PutDataCatalogEncryptionSettings](#)
- [PutResourcePolicy](#)
- [PutSchemaVersionMetadata](#)
- [PutWorkflowRunProperties](#)
- [QuerySchemaVersionMetadata](#)
- [RegisterSchemaVersion](#)
- [RemoveSchemaVersionMetadata](#)
- [ResetJobBookmark](#)
- [ResumeWorkflowRun](#)
- [RunStatement](#)
- [SearchTables](#)
- [StartBlueprintRun](#)
- [StartColumnStatisticsTaskRun](#)
- [StartCrawler](#)
- [StartCrawlerSchedule](#)
- [StartDataQualityRuleRecommendationRun](#)
- [StartDataQualityRulesetEvaluationRun](#)
- [StartExportLabelsTaskRun](#)

- [StartImportLabelsTaskRun](#)
- [StartJobRun](#)
- [StartMLEvaluationTaskRun](#)
- [StartMLLabelingSetGenerationTaskRun](#)
- [StartTrigger](#)
- [StartWorkflowRun](#)
- [StopColumnStatisticsTaskRun](#)
- [StopCrawler](#)
- [StopCrawlerSchedule](#)
- [StopSession](#)
- [StopTrigger](#)
- [StopWorkflowRun](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBlueprint](#)
- [UpdateClassifier](#)
- [UpdateColumnStatisticsForPartition](#)
- [UpdateColumnStatisticsForTable](#)
- [UpdateConnection](#)
- [UpdateCrawler](#)
- [UpdateCrawlerSchedule](#)
- [UpdateDatabase](#)
- [UpdateDataQualityRuleset](#)
- [UpdateDevEndpoint](#)
- [UpdateJob](#)
- [UpdateJobFromSourceControl](#)
- [UpdateMLTransform](#)
- [UpdatePartition](#)
- [UpdateRegistry](#)
- [UpdateSchema](#)

- [UpdateSourceControlFromJob](#)
- [UpdateTable](#)
- [UpdateTableOptimizer](#)
- [UpdateTrigger](#)
- [UpdateUserDefinedFunction](#)
- [UpdateWorkflow](#)

# BatchCreatePartition

Creates one or more partitions in a batch operation.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionInputList": [
    {
      "LastAccessTime": number,
      "LastAnalyzedTime": number,
      "Parameters": {
        "string" : "string"
      },
      "StorageDescriptor": {
        "AdditionalLocations": [ "string" ],
        "BucketColumns": [ "string" ],
        "Columns": [
          {
            "Comment": "string",
            "Name": "string",
            "Parameters": {
              "string" : "string"
            },
            "Type": "string"
          }
        ],
        "Compressed": boolean,
        "InputFormat": "string",
        "Location": "string",
        "NumberOfBuckets": number,
        "OutputFormat": "string",
        "Parameters": {
          "string" : "string"
        },
        "SchemaReference": {
          "SchemaId": {
            "RegistryName": "string",
            "SchemaArn": "string",
            "SchemaName": "string"
          }
        }
      }
    }
  ]
}
```

```

    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"Values": [ "string" ]
}
],
"TableName": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the catalog in which the partition is to be created. Currently, this should be the AWS account ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the metadata database in which the partition is to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionInputList

A list of `PartitionInput` structures that define the partitions to be created.

Type: Array of [PartitionInput](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: Yes

### TableName

The name of the metadata table in which the partition is to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Errors": [  
    ...  
  ]  
}
```



```
{
  "ErrorDetail": {
    "ErrorCode": "string",
    "ErrorMessage": "string"
  },
  "PartitionValues": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

The errors encountered when trying to create the requested partitions.

Type: Array of [PartitionError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchDeleteConnection

Deletes a list of connection definitions from the Data Catalog.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "ConnectionNameList": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which the connections reside. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ConnectionNameList

A list of names of the connections to delete.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": {
    "string" : {
      "ErrorCode": "string",
      "ErrorMessage": "string"
    }
  },
  "Succeeded": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

A map of the names of connections that were not successfully deleted to error details.

Type: String to [ErrorDetail](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### Succeeded

A list of names of the connection definitions that were successfully deleted.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchDeletePartition

Deletes one or more partitions in a batch operation.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionsToDelete": [
    {
      "Values": [ "string" ]
    }
  ],
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partition to be deleted resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database in which the table in question resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: Yes

### PartitionsToDelete

A list of `PartitionInput` structures that define the partitions to be deleted.

Type: Array of [PartitionValueList](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

Required: Yes

### TableName

The name of the table that contains the partitions to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": [
    {
      "ErrorDetail": {
        "ErrorCode": "string",
        "ErrorMessage": "string"
      },
      "PartitionValues": [ "string" ]
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Errors

The errors encountered when trying to delete the requested partitions.

Type: Array of [PartitionError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)



- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchDeleteTable

Deletes multiple tables at once.

## Note

After completing this operation, you no longer have access to the table versions and partitions that belong to the deleted table. AWS Glue deletes these "orphaned" resources asynchronously in a timely manner, at the discretion of the service.

To ensure the immediate deletion of all related resources, before calling `BatchDeleteTable`, use `DeleteTableVersion` or `BatchDeleteTableVersion`, and `DeletePartition` or `BatchDeletePartition`, to delete any resources that belong to the table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "TablesToDelete": [ "string" ],
  "TransactionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the table resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: No

### DatabaseName

The name of the catalog database in which the tables to delete reside. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TablesToDelete

A list of the table to delete.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TransactionId

The transaction ID at which to delete the table contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\p{L}\p{N}\p{P}]*`

Required: No

## Response Syntax

```
{  
  "Errors": [  
    ...  
  ]  
}
```

```
{
  "ErrorDetail": {
    "ErrorCode": "string",
    "ErrorMessage": "string"
  },
  "TableName": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

A list of errors encountered in attempting to delete the specified tables.

Type: Array of [TableError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNotReadyException

A resource was not ready for a transaction.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Required: Yes

### TableName

The name of the table. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### VersionIds

A list of the IDs of versions to be deleted. A `VersionId` is a string representation of an integer. Each version is incremented by 1.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": [
    {
      "ErrorDetail": {
        "ErrorCode": "string",
        "ErrorMessage": "string"
      },
      "TableName": "string",
      "VersionId": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

A list of errors encountered while trying to delete the specified table versions.

Type: Array of [TableVersionError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetBlueprints

Retrieves information about a list of blueprints.

## Request Syntax

```
{
  "IncludeBlueprint": boolean,
  "IncludeParameterSpec": boolean,
  "Names": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [IncludeBlueprint](#)

Specifies whether or not to include the blueprint in the response.

Type: Boolean

Required: No

### [IncludeParameterSpec](#)

Specifies whether or not to include the parameters, as a JSON string, for the blueprint in the response.

Type: Boolean

Required: No

### [Names](#)

A list of blueprint names.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\_\-A-Za-z0-9]+`

Required: Yes

## Response Syntax

```
{
  "Blueprints": [
    {
      "BlueprintLocation": "string",
      "BlueprintServiceLocation": "string",
      "CreatedOn": number,
      "Description": "string",
      "ErrorMessage": "string",
      "LastActiveDefinition": {
        "BlueprintLocation": "string",
        "BlueprintServiceLocation": "string",
        "Description": "string",
        "LastModifiedOn": number,
        "ParameterSpec": "string"
      },
      "LastModifiedOn": number,
      "Name": "string",
      "ParameterSpec": "string",
      "Status": "string"
    }
  ],
  "MissingBlueprints": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Blueprints

Returns a list of blueprint as a Blueprints object.

Type: Array of [Blueprint](#) objects

### MissingBlueprints

Returns a list of `BlueprintNames` that were not found.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\- _A-Za-z0-9]+`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



```
"CrawlElapsedTime": number,
"CrawlerSecurityConfiguration": "string",
"CreationTime": number,
"DatabaseName": "string",
"Description": "string",
"LakeFormationConfiguration": {
  "AccountId": "string",
  "UseLakeFormationCredentials": boolean
},
"LastCrawl": {
  "ErrorMessage": "string",
  "LogGroup": "string",
  "LogStream": "string",
  "MessagePrefix": "string",
  "StartTime": number,
  "Status": "string"
},
"LastUpdated": number,
"LineageConfiguration": {
  "CrawlerLineageSettings": "string"
},
"Name": "string",
"RecrawlPolicy": {
  "RecrawlBehavior": "string"
},
"Role": "string",
"Schedule": {
  "ScheduleExpression": "string",
  "State": "string"
},
"SchemaChangePolicy": {
  "DeleteBehavior": "string",
  "UpdateBehavior": "string"
},
"State": "string",
"TablePrefix": "string",
"Targets": {
  "CatalogTargets": [
    {
      "ConnectionName": "string",
      "DatabaseName": "string",
      "DlqEventQueueArn": "string",
      "EventQueueArn": "string",
      "Tables": [ "string" ]
    }
  ]
}
```

```
    }
  ],
  "DeltaTargets": [
    {
      "ConnectionName": "string",
      "CreateNativeDeltaTable": boolean,
      "DeltaTables": [ "string " ],
      "WriteManifest": boolean
    }
  ],
  "DynamoDBTargets": [
    {
      "Path": "string",
      "scanAll": boolean,
      "scanRate": number
    }
  ],
  "HudiTargets": [
    {
      "ConnectionName": "string",
      "Exclusions": [ "string " ],
      "MaximumTraversalDepth": number,
      "Paths": [ "string " ]
    }
  ],
  "IcebergTargets": [
    {
      "ConnectionName": "string",
      "Exclusions": [ "string " ],
      "MaximumTraversalDepth": number,
      "Paths": [ "string " ]
    }
  ],
  "JdbcTargets": [
    {
      "ConnectionName": "string",
      "EnableAdditionalMetadata": [ "string " ],
      "Exclusions": [ "string " ],
      "Path": "string"
    }
  ],
  "MongoDBTargets": [
    {
      "ConnectionName": "string",
```



```

        "Path": "string",
        "ScanAll": boolean
    }
],
"S3Targets": [
    {
        "ConnectionName": "string",
        "DlqEventQueueArn": "string",
        "EventQueueArn": "string",
        "Exclusions": [ "string" ],
        "Path": "string",
        "SampleSize": number
    }
]
},
"Version": number
}
],
"CrawlersNotFound": [ "string" ]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Crawlers

A list of crawler definitions.

Type: Array of [Crawler](#) objects

### CrawlersNotFound

A list of names of crawlers that were not found.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetCustomEntityTypes

Retrieves the details for the custom patterns specified by a list of names.

## Request Syntax

```
{
  "Names": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Names

A list of names of the custom patterns that you want to retrieve.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "CustomEntityTypes": [
    {
      "ContextWords": [ "string" ],
      "Name": "string",
      "RegexString": "string"
    }
  ],
  "CustomEntityTypesNotFound": [ "string" ]
}
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CustomEntityType

A list of `CustomEntityType` objects representing the custom patterns that have been created.

Type: Array of [CustomEntityType](#) objects

### CustomEntityTypesNotFound

A list of the names of custom patterns that were not found.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetDataQualityResult

Retrieves a list of data quality results for the specified result IDs.

## Request Syntax

```
{  
  "ResultIds": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ResultIds

A list of unique result IDs for the data quality results.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Results": [  
    {  
      "AnalyzerResults": [  
        {  
          "Description": "string",  
          "EvaluatedMetrics": {  
            "string": number  
          },  
          "EvaluationMessage": "string",  
        }  
      ]  
    }  
  ]  
}
```

```
    "Name": "string"
  }
],
"CompletedOn": number,
"DataSource": {
  "GlueTable": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "CatalogId": "string",
    "ConnectionName": "string",
    "DatabaseName": "string",
    "TableName": "string"
  }
},
"EvaluationContext": "string",
"JobName": "string",
"JobRunId": "string",
"Observations": [
  {
    "Description": "string",
    "MetricBasedObservation": {
      "MetricName": "string",
      "MetricValues": {
        "ActualValue": number,
        "ExpectedValue": number,
        "LowerLimit": number,
        "UpperLimit": number
      },
      "NewRules": [ "string" ]
    }
  }
],
"ResultId": "string",
"RuleResults": [
  {
    "Description": "string",
    "EvaluatedMetrics": {
      "string" : number
    },
    "EvaluationMessage": "string",
    "Name": "string",
    "Result": "string"
  }
]
```





## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetDevEndpoints

Returns a list of resource metadata for a given list of development endpoint names. After calling the `ListDevEndpoints` operation, you can call this operation to access the data to which you have been granted permissions. This operation supports all IAM permissions, including permission conditions that uses tags.

## Request Syntax

```
{
  "DevEndpointNames": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DevEndpointNames

The list of DevEndpoint names, which might be the names returned from the `ListDevEndpoint` operation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

## Response Syntax

```
{
  "DevEndpoints": [
    {
      "Arguments": {
        "string" : "string"
      },
      "AvailabilityZone": "string",
      "CreatedTimestamp": number,

```

```
"EndpointName": "string",
"ExtraJarsS3Path": "string",
"ExtraPythonLibsS3Path": "string",
"FailureReason": "string",
"GlueVersion": "string",
"LastModifiedTimestamp": number,
"LastUpdateStatus": "string",
"NumberOfNodes": number,
"NumberOfWorkers": number,
"PrivateAddress": "string",
"PublicAddress": "string",
"PublicKey": "string",
"PublicKeys": [ "string" ],
"RoleArn": "string",
"SecurityConfiguration": "string",
"SecurityGroupIds": [ "string" ],
>Status": "string",
"SubnetId": "string",
"VpcId": "string",
"WorkerType": "string",
"YarnEndpointAddress": "string",
"ZeppelinRemoteSparkInterpreterPort": number
}
],
"DevEndpointsNotFound": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DevEndpoints

A list of DevEndpoint definitions.

Type: Array of [DevEndpoint](#) objects

### DevEndpointsNotFound

A list of DevEndpoints not found.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



```
{
  "AggFunc": "string",
  "Column": [ "string" ]
},
"Groups": [
  [ "string" ]
],
"Inputs": [ "string" ],
"Name": "string"
},
"AmazonRedshiftSource": {
  "Data": {
    "AccessType": "string",
    "Action": "string",
    "AdvancedOptions": [
      {
        "Key": "string",
        "Value": "string"
      }
    ],
    "CatalogDatabase": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "CatalogRedshiftSchema": "string",
    "CatalogRedshiftTable": "string",
    "CatalogTable": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "Connection": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "CrawlerConnection": "string",
    "IamRole": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    }
  }
},
```

```
"MergeAction": "string",
"MergeClause": "string",
"MergeWhenMatched": "string",
"MergeWhenNotMatched": "string",
"PostAction": "string",
"PreAction": "string",
"SampleQuery": "string",
"Schema": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"SelectedColumns": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"SourceType": "string",
"StagingTable": "string",
"Table": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"TablePrefix": "string",
"TableSchema": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"TempDir": "string",
"Upsert": boolean
},
"Name": "string"
},
"AmazonRedshiftTarget": {
  "Data": {
    "AccessType": "string",
    "Action": "string",
    "AdvancedOptions": [
```



```
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "CatalogDatabase": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "CatalogRedshiftSchema": "string",
  "CatalogRedshiftTable": "string",
  "CatalogTable": {
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    "Label": "string",
    "Value": "string"
  },
  "Connection": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "CrawlerConnection": "string",
  "IamRole": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "MergeAction": "string",
  "MergeClause": "string",
  "MergeWhenMatched": "string",
  "MergeWhenNotMatched": "string",
  "PostAction": "string",
  "PreAction": "string",
  "SampleQuery": "string",
  "Schema": {
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    "Label": "string",
    "Value": "string"
  },
  "SelectedColumns": [
    {
      "Description": "string",
      "Label": "string",
```

```

        "Value": "string"
      }
    ],
    "SourceType": "string",
    "StagingTable": "string",
    "Table": {
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      "Label": "string",
      "Value": "string"
    },
    "TablePrefix": "string",
    "TableSchema": [
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        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Inputs": [ "string" ],
  "Name": "string"
},
"ApplyMapping": {
  "Inputs": [ "string" ],
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      "Children": [
        "Mapping"
      ],
      "Dropped": boolean,
      "FromPath": [ "string" ],
      "FromType": "string",
      "ToKey": "string",
      "ToType": "string"
    }
  ],
  "Name": "string"
},
"AthenaConnectorSource": {
  "ConnectionName": "string",
  "ConnectionTable": "string",
  "ConnectionType": "string",

```

```
    "ConnectorName": "string",
    "Name": "string",
    "OutputSchemas": [
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        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "SchemaName": "string"
  },
  "CatalogDeltaSource": {
    "AdditionalDeltaOptions": {
      "string": "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Table": "string"
  },
  "CatalogHudiSource": {
    "AdditionalHudiOptions": {
      "string": "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  }
}
```

```

    }
  ]
}
],
"Table": "string"
},
"CatalogKafkaSource": {
  "Database": "string",
  "DataPreviewOptions": {
    "PollingTime": number,
    "RecordPollingLimit": number
  },
  "DetectSchema": boolean,
  "Name": "string",
  "StreamingOptions": {
    "AddRecordTimestamp": "string",
    "Assign": "string",
    "BootstrapServers": "string",
    "Classification": "string",
    "ConnectionName": "string",
    "Delimiter": "string",
    "EmitConsumerLagMetrics": "string",
    "EndingOffsets": "string",
    "IncludeHeaders": boolean,
    "MaxOffsetsPerTrigger": number,
    "MinPartitions": number,
    "NumRetries": number,
    "PollTimeoutMs": number,
    "RetryIntervalMs": number,
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    "StartingOffsets": "string",
    "StartingTimestamp": "string",
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    "TopicName": "string"
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  "Table": "string",
  "WindowSize": number
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"CatalogKinesisSource": {
  "Database": "string",
  "DataPreviewOptions": {
    "PollingTime": number,
    "RecordPollingLimit": number
  },

```

```
"DetectSchema": boolean,
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"StreamingOptions": {
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  "Classification": "string",
  "Delimiter": "string",
  "DescribeShardInterval": number,
  "EmitConsumerLagMetrics": "string",
  "EndpointUrl": "string",
  "IdleTimeBetweenReadsInMs": number,
  "MaxFetchRecordsPerShard": number,
  "MaxFetchTimeInMs": number,
  "MaxRecordPerRead": number,
  "MaxRetryIntervalMs": number,
  "NumRetries": number,
  "RetryIntervalMs": number,
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  "RoleSessionName": "string",
  "StartingPosition": "string",
  "StartingTimestamp": "string",
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  "StreamName": "string"
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  "Inputs": [ "string " ],
  "Name": "string",
  "Table": "string"
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"ConnectorDataSource": {
  "ConnectionType": "string",
  "Data": {
    "string": "string"
  }
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```

```
    "Name": "string",
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            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
  },
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    "ConnectionType": "string",
    "Data": {
      "string": "string"
    },
    "Inputs": [ "string" ],
    "Name": "string"
  },
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    "Code": "string",
    "Inputs": [ "string" ],
    "Name": "string",
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        "Columns": [
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            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  },
  "DirectJDBCSource": {
    "ConnectionName": "string",
    "ConnectionType": "string",
    "Database": "string",
    "Name": "string",
    "RedshiftTmpDir": "string",
    "Table": "string"
  },
}
```

```
"DirectKafkaSource": {
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    "RecordPollingLimit": number
  },
  "DetectSchema": boolean,
  "Name": "string",
  "StreamingOptions": {
    "AddRecordTimestamp": "string",
    "Assign": "string",
    "BootstrapServers": "string",
    "Classification": "string",
    "ConnectionName": "string",
    "Delimiter": "string",
    "EmitConsumerLagMetrics": "string",
    "EndingOffsets": "string",
    "IncludeHeaders": boolean,
    "MaxOffsetsPerTrigger": number,
    "MinPartitions": number,
    "NumRetries": number,
    "PollTimeoutMs": number,
    "RetryIntervalMs": number,
    "SecurityProtocol": "string",
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    "StartingTimestamp": "string",
    "SubscribePattern": "string",
    "TopicName": "string"
  },
  "WindowSize": number
},
"DirectKinesisSource": {
  "DataPreviewOptions": {
    "PollingTime": number,
    "RecordPollingLimit": number
  },
  "DetectSchema": boolean,
  "Name": "string",
  "StreamingOptions": {
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    "AddRecordTimestamp": "string",
    "AvoidEmptyBatches": boolean,
    "Classification": "string",
    "Delimiter": "string",
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```

```

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    "MaxFetchRecordsPerShard": number,
    "MaxFetchTimeInMs": number,
    "MaxRecordPerRead": number,
    "MaxRetryIntervalMs": number,
    "NumRetries": number,
    "RetryIntervalMs": number,
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    "RoleSessionName": "string",
    "StartingPosition": "string",
    "StartingTimestamp": "string",
    "StreamArn": "string",
    "StreamName": "string"
  },
  "WindowSize": number
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  ],
  "Inputs": [ "string" ],
  "Name": "string"
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  "Name": "string",
  "Paths": [
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  ]
},
"DropNullFields": {
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  "Name": "string",
  "NullCheckBoxList": {
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    "IsNegOne": boolean,
    "IsNullString": boolean
  }
},
"NullTextList": [
  {
    "Datatype": {
      "Id": "string",

```



```
        "Label": "string"
      },
      "Value": "string"
    }
  ]
},
"DynamicTransform": {
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  "Inputs": [ "string" ],
  "Name": "string",
  "OutputSchemas": [
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          "Type": "string"
        }
      ]
    }
  ]
},
"Parameters": [
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    "ListType": "string",
    "Name": "string",
    "Type": "string",
    "ValidationMessage": "string",
    "ValidationRule": "string",
    "Value": [ "string" ]
  }
],
"Path": "string",
"TransformName": "string",
"Version": "string"
},
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  "Name": "string",
  "Table": "string"
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"EvaluateDataQuality": {
  "Inputs": [ "string" ],
  "Name": "string",
  "Output": "string",
```

```

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      "EvaluationContext": "string",
      "ResultsPublishingEnabled": boolean,
      "ResultsS3Prefix": "string"
    },
    "Ruleset": "string",
    "StopJobOnFailureOptions": {
      "StopJobOnFailureTiming": "string"
    }
  },
  "EvaluateDataQualityMultiFrame": {
    "AdditionalDataSources": {
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    },
    "AdditionalOptions": {
      "string" : "string"
    },
    "Inputs": [ "string" ],
    "Name": "string",
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      "EvaluationContext": "string",
      "ResultsPublishingEnabled": boolean,
      "ResultsS3Prefix": "string"
    },
    "Ruleset": "string",
    "StopJobOnFailureOptions": {
      "StopJobOnFailureTiming": "string"
    }
  },
  "FillMissingValues": {
    "FilledPath": "string",
    "ImputedPath": "string",
    "Inputs": [ "string" ],
    "Name": "string"
  },
  "Filter": {
    "Filters": [
      {
        "Negated": boolean,
        "Operation": "string",
        "Values": [

```

```

        "Type": "string",
        "Value": [ "string" ]
      }
    ]
  },
  "Inputs": [ "string" ],
  "LogicalOperator": "string",
  "Name": "string"
},
"GovernedCatalogSource": {
  "AdditionalOptions": {
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    "BoundedSize": number
  },
  "Database": "string",
  "Name": "string",
  "PartitionPredicate": "string",
  "Table": "string"
},
"GovernedCatalogTarget": {
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  "Inputs": [ "string" ],
  "Name": "string",
  "PartitionKeys": [
    [ "string" ]
  ],
  "SchemaChangePolicy": {
    "EnableUpdateCatalog": boolean,
    "UpdateBehavior": "string"
  },
  "Table": "string"
},
"JDBCConnectorSource": {
  "AdditionalOptions": {
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    },
    "FilterPredicate": "string",
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    "JobBookmarkKeysSortOrder": "string",
    "LowerBound": number,
    "NumPartitions": number,
    "PartitionColumn": "string",

```

```

        "UpperBound": number
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    "ConnectionType": "string",
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    "Name": "string",
    "OutputSchemas": [
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            "Columns": [
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                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ],
    "Query": "string"
},
"JDBCConnectorTarget": {
    "AdditionalOptions": {
        "string" : "string"
    },
    "ConnectionName": "string",
    "ConnectionTable": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ]
},
"Join": {
    "Columns": [
        {
            "From": "string",

```

```
        "Keys": [
            [ "string" ]
        ]
    },
    ],
    "Inputs": [ "string" ],
    "JoinType": "string",
    "Name": "string"
},
"Merge": {
    "Inputs": [ "string" ],
    "Name": "string",
    "PrimaryKeys": [
        [ "string" ]
    ],
    "Source": "string"
},
"MicrosoftSQLServerCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
},
"MicrosoftSQLServerCatalogTarget": {
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    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
},
"MySQLCatalogSource": {
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    "Name": "string",
    "Table": "string"
},
"MySQLCatalogTarget": {
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    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
},
"OracleSQLCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
},
},
```

```
"OracleSQLCatalogTarget": {
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "Table": "string"
},
"PIIDetection": {
  "EntityTypesToDetect": [ "string" ],
  "Inputs": [ "string" ],
  "MaskValue": "string",
  "Name": "string",
  "OutputColumnName": "string",
  "PiiType": "string",
  "SampleFraction": number,
  "ThresholdFraction": number
},
"PostgreSQLCatalogSource": {
  "Database": "string",
  "Name": "string",
  "Table": "string"
},
"PostgreSQLCatalogTarget": {
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "Table": "string"
},
"Recipe": {
  "Inputs": [ "string" ],
  "Name": "string",
  "RecipeReference": {
    "RecipeArn": "string",
    "RecipeVersion": "string"
  }
},
"RedshiftSource": {
  "Database": "string",
  "Name": "string",
  "RedshiftTmpDir": "string",
  "Table": "string",
  "TmpDirIAMRole": "string"
},
"RedshiftTarget": {
  "Database": "string",
```

```

    "Inputs": [ "string" ],
    "Name": "string",
    "RedshiftTmpDir": "string",
    "Table": "string",
    "TmpDirIAMRole": "string",
    "UpsertRedshiftOptions": {
      "ConnectionName": "string",
      "TableLocation": "string",
      "UpsertKeys": [ "string" ]
    }
  },
  "RelationalCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "RenameField": {
    "Inputs": [ "string" ],
    "Name": "string",
    "SourcePath": [ "string" ],
    "TargetPath": [ "string" ]
  },
  "S3CatalogDeltaSource": {
    "AdditionalDeltaOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  },
  "Table": "string"
},
"S3CatalogHudiSource": {
  "AdditionalHudiOptions": {
    "string" : "string"
  }
},

```

```
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    "Name": "string",
    "OutputSchemas": [
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            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Table": "string"
  },
  "S3CatalogSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number
    },
    "Database": "string",
    "Name": "string",
    "PartitionPredicate": "string",
    "Table": "string"
  },
  "S3CatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "SchemaChangePolicy": {
      "EnableUpdateCatalog": boolean,
      "UpdateBehavior": "string"
    },
    "Table": "string"
  },
  "S3CsvSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    }
  },
```



```
    "CompressionType": "string",
    "Escaper": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Multiline": boolean,
    "Name": "string",
    "OptimizePerformance": boolean,
    "OutputSchemas": [
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        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ],
    "QuoteChar": "string",
    "Recurse": boolean,
    "Separator": "string",
    "SkipFirst": boolean,
    "WithHeader": boolean,
    "WriteHeader": boolean
  },
  "S3DeltaCatalogTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "SchemaChangePolicy": {
      "EnableUpdateCatalog": boolean,
      "UpdateBehavior": "string"
    },
    "Table": "string"
  },
}
```

```
"S3DeltaDirectTarget": {
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    "string" : "string"
  },
  "Compression": "string",
  "Format": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "PartitionKeys": [
    [ "string" ]
  ],
  "Path": "string",
  "SchemaChangePolicy": {
    "Database": "string",
    "EnableUpdateCatalog": boolean,
    "Table": "string",
    "UpdateBehavior": "string"
  }
},
"S3DeltaSource": {
  "AdditionalDeltaOptions": {
    "string" : "string"
  },
  "AdditionalOptions": {
    "BoundedFiles": number,
    "BoundedSize": number,
    "EnableSamplePath": boolean,
    "SamplePath": "string"
  },
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ],
  "Paths": [ "string" ]
},
"S3DirectTarget": {
  "Compression": "string",
```

```

    "Format": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3GlueParquetTarget": {
    "Compression": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3HudiCatalogTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "SchemaChangePolicy": {
      "EnableUpdateCatalog": boolean,
      "UpdateBehavior": "string"
    },
    "Table": "string"
  }
}

```

```

},
  "S3HudiDirectTarget": {
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    },
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    "Format": "string",
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    "PartitionKeys": [
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    ],
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    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3HudiSource": {
    "AdditionalHudiOptions": {
      "string" : "string"
    },
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ]
  },
  "S3JsonSource": {

```

```
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "CompressionType": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "JsonPath": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Multiline": boolean,
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ],
    "Recurse": boolean
  },
  "S3ParquetSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "CompressionType": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Name": "string",
    "OutputSchemas": [
      {
```

```
        "Columns": [
            {
                "Name": "string",
                "Type": "string"
            }
        ]
    },
    ],
    "Paths": [ "string" ],
    "Recurse": boolean
},
"SelectFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Paths": [
        [ "string" ]
    ]
},
"SelectFromCollection": {
    "Index": number,
    "Inputs": [ "string" ],
    "Name": "string"
},
"SnowflakeSource": {
    "Data": {
        "Action": "string",
        "AdditionalOptions": {
            "string" : "string"
        },
        "AutoPushdown": boolean,
        "Connection": {
            "Description": "string",
            "Label": "string",
            "Value": "string"
        },
        "Database": "string",
        "IamRole": {
            "Description": "string",
            "Label": "string",
            "Value": "string"
        },
        "MergeAction": "string",
        "MergeClause": "string",
        "MergeWhenMatched": "string",
```

```

    "MergeWhenNotMatched": "string",
    "PostAction": "string",
    "PreAction": "string",
    "SampleQuery": "string",
    "Schema": "string",
    "SelectedColumns": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "SourceType": "string",
    "StagingTable": "string",
    "Table": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
},
"SnowflakeTarget": {
  "Data": {
    "Action": "string",
    "AdditionalOptions": {
      "string": "string"
    },
    "AutoPushdown": boolean,

```

```
"Connection": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"Database": "string",
"IamRole": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"MergeAction": "string",
"MergeClause": "string",
"MergeWhenMatched": "string",
"MergeWhenNotMatched": "string",
"PostAction": "string",
"PreAction": "string",
"SampleQuery": "string",
"Schema": "string",
"SelectedColumns": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"SourceType": "string",
"StagingTable": "string",
"Table": "string",
"TableSchema": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"TempDir": "string",
"Upsert": boolean
},
"Inputs": [ "string" ],
"Name": "string"
},
"SparkConnectorSource": {
  "AdditionalOptions": {
```



```
        "string" : "string"
    },
    "ConnectionName": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ]
},
"SparkConnectorTarget": {
    "AdditionalOptions": {
        "string" : "string"
    },
    "ConnectionName": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ]
},
"SparkSQL": {
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
```

```
        "Name": "string",
        "Type": "string"
      }
    ]
  },
  "SqlAliases": [
    {
      "Alias": "string",
      "From": "string"
    }
  ],
  "SqlQuery": "string"
},
"Spigot": {
  "Inputs": [ "string" ],
  "Name": "string",
  "Path": "string",
  "Prob": number,
  "Topk": number
},
"SplitFields": {
  "Inputs": [ "string" ],
  "Name": "string",
  "Paths": [
    [ "string" ]
  ]
},
"Union": {
  "Inputs": [ "string" ],
  "Name": "string",
  "UnionType": "string"
}
}
},
"Command": {
  "Name": "string",
  "PythonVersion": "string",
  "Runtime": "string",
  "ScriptLocation": "string"
},
"Connections": {
  "Connections": [ "string" ]
},
}
```

```
"CreatedOn": number,
"DefaultArguments": {
  "string" : "string"
},
"Description": "string",
"ExecutionClass": "string",
"ExecutionProperty": {
  "MaxConcurrentRuns": number
},
"GlueVersion": "string",
"LastModifiedOn": number,
"LogUri": "string",
"MaxCapacity": number,
"MaxRetries": number,
"Name": "string",
"NonOverridableArguments": {
  "string" : "string"
},
"NotificationProperty": {
  "NotifyDelayAfter": number
},
"NumberOfWorkers": number,
"Role": "string",
"SecurityConfiguration": "string",
"SourceControlDetails": {
  "AuthStrategy": "string",
  "AuthToken": "string",
  "Branch": "string",
  "Folder": "string",
  "LastCommitId": "string",
  "Owner": "string",
  "Provider": "string",
  "Repository": "string"
},
"Timeout": number,
"WorkerType": "string"
}
],
"JobsNotFound": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Jobs

A list of job definitions.

Type: Array of [Job](#) objects

### JobsNotFound

A list of names of jobs not found.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetPartition

Retrieves partitions in a batch request.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionsToGet": [
    {
      "Values": [ "string" ]
    }
  ],
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partitions in question reside. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: Yes

### PartitionsToGet

A list of partition values identifying the partitions to retrieve.

Type: Array of [PartitionValueList](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: Yes

## Response Syntax

```
{
  "Partitions": [
    {
      "CatalogId": "string",
      "CreationTime": number,
      "DatabaseName": "string",
      "LastAccessTime": number,
      "LastAnalyzedTime": number,
      "Parameters": {
        "string" : "string"
      },
      "StorageDescriptor": {
        "AdditionalLocations": [ "string" ],
        "BucketColumns": [ "string" ],
        "Columns": [
          {
            "Comment": "string",
```

```
        "Name": "string",
        "Parameters": {
            "string" : "string"
        },
        "Type": "string"
    }
],
"Compressed": boolean,
"InputFormat": "string",
"Location": "string",
"NumberOfBuckets": number,
"OutputFormat": "string",
"Parameters": {
    "string" : "string"
},
"SchemaReference": {
    "SchemaId": {
        "RegistryName": "string",
        "SchemaArn": "string",
        "SchemaName": "string"
    },
    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
},
"SerdeInfo": {
    "Name": "string",
    "Parameters": {
        "string" : "string"
    },
    "SerializationLibrary": "string"
},
"SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
        "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
    {
        "Column": "string",
        "SortOrder": number
    }
],
```



```
    "StoredAsSubDirectories": boolean
  },
  "TableName": "string",
  "Values": [ "string" ]
}
],
"UnprocessedKeys": [
  {
    "Values": [ "string" ]
  }
]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Partitions

A list of the requested partitions.

Type: Array of [Partition](#) objects

### UnprocessedKeys

A list of the partition values in the request for which partitions were not returned.

Type: Array of [PartitionValueList](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **FederationSourceException**

A federation source failed.

HTTP Status Code: 400

## **FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

## **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **InvalidStateException**

An error that indicates your data is in an invalid state.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetTableOptimizer

Returns the configuration for the specified table optimizers.

## Request Syntax

```
{
  "Entries": [
    {
      "catalogId": "string",
      "databaseName": "string",
      "tableName": "string",
      "type": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Entries

A list of BatchGetTableOptimizerEntry objects specifying the table optimizers to retrieve.

Type: Array of [BatchGetTableOptimizerEntry](#) objects

Required: Yes

## Response Syntax

```
{
  "Failures": [
    {
      "catalogId": "string",
      "databaseName": "string",
      "error": {
        "ErrorCode": "string",

```

```

        "ErrorMessage": "string"
    },
    "tableName": "string",
    "type": "string"
}
],
"TableOptimizers": [
{
    "catalogId": "string",
    "databaseName": "string",
    "tableName": "string",
    "tableOptimizer": {
        "configuration": {
            "enabled": boolean,
            "roleArn": "string"
        },
        "lastRun": {
            "endTimeStamp": number,
            "error": "string",
            "eventType": "string",
            "metrics": {
                "JobDurationInHour": "string",
                "NumberOfBytesCompacted": "string",
                "NumberOfDpus": "string",
                "NumberOfFilesCompacted": "string"
            },
            "startTimeStamp": number
        },
        "type": "string"
    }
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Failures

A list of errors from the operation.

Type: Array of [BatchGetTableOptimizerError](#) objects

## [TableOptimizers](#)

A list of `BatchTableOptimizer` objects.

Type: Array of [BatchTableOptimizer](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



```

    },
    "CrawlerName": "string",
    "JobName": "string",
    "NotificationProperty": {
      "NotifyDelayAfter": number
    },
    "SecurityConfiguration": "string",
    "Timeout": number
  }
],
"Description": "string",
"EventBatchingCondition": {
  "BatchSize": number,
  "BatchWindow": number
},
"Id": "string",
"Name": "string",
"Predicate": {
  "Conditions": [
    {
      "CrawlerName": "string",
      "CrawlState": "string",
      "JobName": "string",
      "LogicalOperator": "string",
      "State": "string"
    }
  ],
  "Logical": "string"
},
"Schedule": "string",
"State": "string",
"Type": "string",
"WorkflowName": "string"
}
],
"TriggersNotFound": [ "string" ]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## [Triggers](#)

A list of trigger definitions.

Type: Array of [Trigger](#) objects

## [TriggersNotFound](#)

A list of names of triggers not found.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchGetWorkflows

Returns a list of resource metadata for a given list of workflow names. After calling the `ListWorkflows` operation, you can call this operation to access the data to which you have been granted permissions. This operation supports all IAM permissions, including permission conditions that uses tags.

## Request Syntax

```
{
  "IncludeGraph": boolean,
  "Names": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### IncludeGraph

Specifies whether to include a graph when returning the workflow resource metadata.

Type: Boolean

Required: No

### Names

A list of workflow names, which may be the names returned from the `ListWorkflows` operation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "MissingWorkflows": [ "string" ],
  "Workflows": [
    {
      "BlueprintDetails": {
        "BlueprintName": "string",
        "RunId": "string"
      },
      "CreatedOn": number,
      "DefaultRunProperties": {
        "string" : "string"
      },
      "Description": "string",
      "Graph": {
        "Edges": [
          {
            "DestinationId": "string",
            "SourceId": "string"
          }
        ],
        "Nodes": [
          {
            "CrawlerDetails": {
              "Crawls": [
                {
                  "CompletedOn": number,
                  "ErrorMessage": "string",
                  "LogGroup": "string",
                  "LogStream": "string",
                  "StartedOn": number,
                  "State": "string"
                }
              ]
            },
            "JobDetails": {
              "JobRuns": [
                {
                  "AllocatedCapacity": number,
                  "Arguments": {
                    "string" : "string"
                  }
                }
              ]
            }
          }
        ]
      }
    }
  ]
}
```

```

    "Attempt": number,
    "CompletedOn": number,
    "DPUSecods": number,
    "ErrorMessage": "string",
    "ExecutionClass": "string",
    "ExecutionTime": number,
    "GlueVersion": "string",
    "Id": "string",
    "JobName": "string",
    "JobRunState": "string",
    "LastModifiedOn": number,
    "LogGroupName": "string",
    "MaxCapacity": number,
    "NotificationProperty": {
      "NotifyDelayAfter": number
    },
    "NumberOfWorkers": number,
    "PredecessorRuns": [
      {
        "JobName": "string",
        "RunId": "string"
      }
    ],
    "PreviousRunId": "string",
    "SecurityConfiguration": "string",
    "StartedOn": number,
    "Timeout": number,
    "TriggerName": "string",
    "WorkerType": "string"
  }
]
},
"Name": "string",
"TriggerDetails": {
  "Trigger": {
    "Actions": [
      {
        "Arguments": {
          "string": "string"
        },
        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
          "NotifyDelayAfter": number
        }
      }
    ]
  }
}

```

```
        },
        "SecurityConfiguration": "string",
        "Timeout": number
    }
],
"Description": "string",
"EventBatchingCondition": {
    "BatchSize": number,
    "BatchWindow": number
},
"Id": "string",
"Name": "string",
"Predicate": {
    "Conditions": [
        {
            "CrawlerName": "string",
            "CrawlState": "string",
            "JobName": "string",
            "LogicalOperator": "string",
            "State": "string"
        }
    ],
    "Logical": "string"
},
"Schedule": "string",
"State": "string",
"Type": "string",
"WorkflowName": "string"
}
},
"Type": "string",
"UniqueId": "string"
}
]
},
"LastModifiedOn": number,
"LastRun": {
    "CompletedOn": number,
    "ErrorMessage": "string",
    "Graph": {
        "Edges": [
            {
                "DestinationId": "string",
                "SourceId": "string"
            }
        ]
    }
}
```

```
    }
  ],
  "Nodes": [
    {
      "CrawlerDetails": {
        "Crawls": [
          {
            "CompletedOn": number,
            "ErrorMessage": "string",
            "LogGroup": "string",
            "LogStream": "string",
            "StartedOn": number,
            "State": "string"
          }
        ]
      }
    },
    {
      "JobDetails": {
        "JobRuns": [
          {
            "AllocatedCapacity": number,
            "Arguments": {
              "string": "string"
            },
            "Attempt": number,
            "CompletedOn": number,
            "DPUSeconds": number,
            "ErrorMessage": "string",
            "ExecutionClass": "string",
            "ExecutionTime": number,
            "GlueVersion": "string",
            "Id": "string",
            "JobName": "string",
            "JobRunState": "string",
            "LastModifiedOn": number,
            "LogGroupName": "string",
            "MaxCapacity": number,
            "NotificationProperty": {
              "NotifyDelayAfter": number
            },
            "NumberOfWorkers": number,
            "PredecessorRuns": [
              {
                "JobName": "string",
                "RunId": "string"
              }
            ]
          }
        ]
      }
    }
  ]
}
```

```

    }
    ],
    "PreviousRunId": "string",
    "SecurityConfiguration": "string",
    "StartedOn": number,
    "Timeout": number,
    "TriggerName": "string",
    "WorkerType": "string"
  }
]
},
"Name": "string",
"TriggerDetails": {
  "Trigger": {
    "Actions": [
      {
        "Arguments": {
          "string": "string"
        },
        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
          "NotifyDelayAfter": number
        },
        "SecurityConfiguration": "string",
        "Timeout": number
      }
    ],
    "Description": "string",
    "EventBatchingCondition": {
      "BatchSize": number,
      "BatchWindow": number
    },
    "Id": "string",
    "Name": "string",
    "Predicate": {
      "Conditions": [
        {
          "CrawlerName": "string",
          "CrawlState": "string",
          "JobName": "string",
          "LogicalOperator": "string",
          "State": "string"
        }
      ]
    }
  }
}

```



```
        ],
        "Logical": "string"
    },
    "Schedule": "string",
    "State": "string",
    "Type": "string",
    "WorkflowName": "string"
}
},
"Type": "string",
"UniqueId": "string"
}
]
},
"Name": "string",
"PreviousRunId": "string",
"StartedOn": number,
"StartingEventBatchCondition": {
    "BatchSize": number,
    "BatchWindow": number
},
"Statistics": {
    "ErroredActions": number,
    "FailedActions": number,
    "RunningActions": number,
    "StoppedActions": number,
    "SucceededActions": number,
    "TimeoutActions": number,
    "TotalActions": number,
    "WaitingActions": number
},
"Status": "string",
"WorkflowRunId": "string",
"WorkflowRunProperties": {
    "string" : "string"
}
},
"MaxConcurrentRuns": number,
"Name": "string"
}
]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MissingWorkflows

A list of names of workflows not found.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### Workflows

A list of workflow resource metadata.

Type: Array of [Workflow](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchStopJobRun

Stops one or more job runs for a specified job definition.

## Request Syntax

```
{
  "JobName": "string",
  "JobRunIds": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job definition for which to stop job runs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### JobRunIds

A list of the JobRunIds that should be stopped for that job definition.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": [
    {
      "ErrorDetail": {
        "ErrorCode": "string",
        "ErrorMessage": "string"
      },
      "JobName": "string",
      "JobRunId": "string"
    }
  ],
  "SuccessfulSubmissions": [
    {
      "JobName": "string",
      "JobRunId": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

A list of the errors that were encountered in trying to stop JobRuns, including the JobRunId for which each error was encountered and details about the error.

Type: Array of [BatchStopJobRunError](#) objects

### SuccessfulSubmissions

A list of the JobRuns that were successfully submitted for stopping.

Type: Array of [BatchStopJobRunSuccessfulSubmission](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchUpdatePartition

Updates one or more partitions in a batch operation.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "Entries": [
    {
      "PartitionInput": {
        "LastAccessTime": number,
        "LastAnalyzedTime": number,
        "Parameters": {
          "string": "string"
        },
      },
      "StorageDescriptor": {
        "AdditionalLocations": [ "string" ],
        "BucketColumns": [ "string" ],
        "Columns": [
          {
            "Comment": "string",
            "Name": "string",
            "Parameters": {
              "string": "string"
            },
            "Type": "string"
          }
        ],
      },
      "Compressed": boolean,
      "InputFormat": "string",
      "Location": "string",
      "NumberOfBuckets": number,
      "OutputFormat": "string",
      "Parameters": {
        "string": "string"
      },
      "SchemaReference": {
        "SchemaId": {
          "RegistryName": "string",
          "SchemaArn": "string",
          "SchemaName": "string"
        }
      }
    }
  ]
}
```

```
    },
    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"Values": [ "string" ]
},
"PartitionValueList": [ "string" ]
}
],
"TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.



## CatalogId

The ID of the catalog in which the partition is to be updated. Currently, this should be the AWS account ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## DatabaseName

The name of the metadata database in which the partition is to be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Entries

A list of up to 100 `BatchUpdatePartitionRequestEntry` objects to update.

Type: Array of [BatchUpdatePartitionRequestEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: Yes

## TableName

The name of the metadata table in which the partition is to be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": [
    {
      "ErrorDetail": {
        "ErrorCode": "string",
        "ErrorMessage": "string"
      },
      "PartitionValueList": [ "string" ]
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

The errors encountered when trying to update the requested partitions. A list of `BatchUpdatePartitionFailureEntry` objects.

Type: Array of [BatchUpdatePartitionFailureEntry](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CancelMLTaskRun

Cancel (stops) a task run. Machine learning task runs are asynchronous tasks that AWS Glue runs on your behalf as part of various machine learning workflows. You can cancel a machine learning task run at any time by calling `CancelMLTaskRun` with a task run's parent transform's `TransformID` and the task run's `TaskRunId`.

## Request Syntax

```
{  
  "TaskRunId": "string",  
  "TransformId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TaskRunId

A unique identifier for the task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`



Required: Yes

## Response Syntax

```
{
  "Status": "string",
  "TaskRunId": "string",
  "TransformId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Status

The status for this run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

### TaskRunId

The unique identifier for the task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CancelStatement

Cancels the statement.

## Request Syntax

```
{  
  "Id": number,  
  "RequestOrigin": "string",  
  "SessionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Id

The ID of the statement to be cancelled.

Type: Integer

Required: Yes

### RequestOrigin

The origin of the request to cancel the statement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

### SessionId

The Session ID of the statement to be cancelled.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### IllegalSessionStateException

The session is in an invalid state to perform a requested operation.

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CheckSchemaVersionValidity

Validates the supplied schema. This call has no side effects, it simply validates using the supplied schema using DataFormat as the format. Since it does not take a schema set name, no compatibility checks are performed.

## Request Syntax

```
{
  "DataFormat": "string",
  "SchemaDefinition": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DataFormat

The data format of the schema definition. Currently AVRO, JSON and PROTOBUF are supported.

Type: String

Valid Values: AVRO | JSON | PROTOBUF

Required: Yes

### SchemaDefinition

The definition of the schema that has to be validated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170000.

Pattern: .\*\\S.\*

Required: Yes

## Response Syntax

```
{  
  "Error": "string",  
  "Valid": boolean  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Error

A validation failure error message.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5000.

### Valid

Return true, if the schema is valid and false otherwise.

Type: Boolean

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500



## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateBlueprint

Registers a blueprint with AWS Glue.

## Request Syntax

```
{
  "BlueprintLocation": "string",
  "Description": "string",
  "Name": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### BlueprintLocation

Specifies a path in Amazon S3 where the blueprint is published.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `^s3://([^\s/]+)/(^[^\s/]+/)*([^\s/]+)$`

Required: Yes

### Description

A description of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

## Name

The name of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: Yes

## Tags

The tags to be applied to this blueprint.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "Name": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Name

Returns the name of the blueprint that was registered.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateClassifier

Creates a classifier in the user's account. This can be a `GrokClassifier`, an `XMLClassifier`, a `JsonClassifier`, or a `CsvClassifier`, depending on which field of the request is present.

## Request Syntax

```
{
  "CsvClassifier": {
    "AllowSingleColumn": boolean,
    "ContainsHeader": "string",
    "CustomDatatypeConfigured": boolean,
    "CustomDatatypes": [ "string" ],
    "Delimiter": "string",
    "DisableValueTrimming": boolean,
    "Header": [ "string" ],
    "Name": "string",
    "QuoteSymbol": "string",
    "Serde": "string"
  },
  "GrokClassifier": {
    "Classification": "string",
    "CustomPatterns": "string",
    "GrokPattern": "string",
    "Name": "string"
  },
  "JsonClassifier": {
    "JsonPath": "string",
    "Name": "string"
  },
  "XMLClassifier": {
    "Classification": "string",
    "Name": "string",
    "RowTag": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## CsvClassifier

A `CsvClassifier` object specifying the classifier to create.

Type: [CreateCsvClassifierRequest](#) object

Required: No

## GrokClassifier

A `GrokClassifier` object specifying the classifier to create.

Type: [CreateGrokClassifierRequest](#) object

Required: No

## JsonClassifier

A `JsonClassifier` object specifying the classifier to create.

Type: [CreateJsonClassifierRequest](#) object

Required: No

## XMLClassifier

An `XMLClassifier` object specifying the classifier to create.

Type: [CreateXMLClassifierRequest](#) object

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateConnection

Creates a connection definition in the Data Catalog.

Connections used for creating federated resources require the IAM `glue:PassConnection` permission.

## Request Syntax

```
{
  "CatalogId": "string",
  "ConnectionInput": {
    "ConnectionProperties": {
      "string" : "string"
    },
    "ConnectionType": "string",
    "Description": "string",
    "MatchCriteria": [ "string" ],
    "Name": "string",
    "PhysicalConnectionRequirements": {
      "AvailabilityZone": "string",
      "SecurityGroupIdList": [ "string" ],
      "SubnetId": "string"
    }
  },
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which to create the connection. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ConnectionInput

A `ConnectionInput` object defining the connection to create.

Type: [ConnectionInput](#) object

Required: Yes

### Tags

The tags you assign to the connection.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateCrawler

Creates a new crawler with specified targets, role, configuration, and optional schedule. At least one crawl target must be specified, in the `s3Targets` field, the `jdbcTargets` field, or the `DynamoDBTargets` field.

## Request Syntax

```
{
  "Classifiers": [ "string" ],
  "Configuration": "string",
  "CrawlerSecurityConfiguration": "string",
  "DatabaseName": "string",
  "Description": "string",
  "LakeFormationConfiguration": {
    "AccountId": "string",
    "UseLakeFormationCredentials": boolean
  },
  "LineageConfiguration": {
    "CrawlerLineageSettings": "string"
  },
  "Name": "string",
  "RecrawlPolicy": {
    "RecrawlBehavior": "string"
  },
  "Role": "string",
  "Schedule": "string",
  "SchemaChangePolicy": {
    "DeleteBehavior": "string",
    "UpdateBehavior": "string"
  },
  "TablePrefix": "string",
  "Tags": {
    "string" : "string"
  },
  "Targets": {
    "CatalogTargets": [
      {
        "ConnectionName": "string",
        "DatabaseName": "string",
        "DlqEventQueueArn": "string",
        "EventQueueArn": "string",
```

```
    "Tables": [ "string" ]
  }
],
"DeltaTargets": [
  {
    "ConnectionName": "string",
    "CreateNativeDeltaTable": boolean,
    "DeltaTables": [ "string" ],
    "WriteManifest": boolean
  }
],
"DynamoDBTargets": [
  {
    "Path": "string",
    "scanAll": boolean,
    "scanRate": number
  }
],
"HudiTargets": [
  {
    "ConnectionName": "string",
    "Exclusions": [ "string" ],
    "MaximumTraversalDepth": number,
    "Paths": [ "string" ]
  }
],
"IcebergTargets": [
  {
    "ConnectionName": "string",
    "Exclusions": [ "string" ],
    "MaximumTraversalDepth": number,
    "Paths": [ "string" ]
  }
],
"JdbcTargets": [
  {
    "ConnectionName": "string",
    "EnableAdditionalMetadata": [ "string" ],
    "Exclusions": [ "string" ],
    "Path": "string"
  }
],
"MongoDBTargets": [
  {
```

```

        "ConnectionName": "string",
        "Path": "string",
        "ScanAll": boolean
    }
],
"S3Targets": [
    {
        "ConnectionName": "string",
        "DlqEventQueueArn": "string",
        "EventQueueArn": "string",
        "Exclusions": [ "string" ],
        "Path": "string",
        "SampleSize": number
    }
]
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Classifiers

A list of custom classifiers that the user has registered. By default, all built-in classifiers are included in a crawl, but these custom classifiers always override the default classifiers for a given classification.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Configuration

Crawler configuration information. This versioned JSON string allows users to specify aspects of a crawler's behavior. For more information, see [Setting crawler configuration options](#).

Type: String

Required: No

### CrawlerSecurityConfiguration

The name of the SecurityConfiguration structure to be used by this crawler.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### DatabaseName

The AWS Glue database where results are written, such as: `arn:aws:daylight:us-east-1::database/sometable/*`.

Type: String

Required: No

### Description

A description of the new crawler.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LakeFormationConfiguration

Specifies AWS Lake Formation configuration settings for the crawler.

Type: [LakeFormationConfiguration](#) object

Required: No

### LineageConfiguration

Specifies data lineage configuration settings for the crawler.

Type: [LineageConfiguration](#) object

Required: No

### Name

Name of the new crawler.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\uD800-\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RecrawlPolicy

A policy that specifies whether to crawl the entire dataset again, or to crawl only folders that were added since the last crawler run.

Type: [RecrawlPolicy](#) object

Required: No

### Role

The IAM role or Amazon Resource Name (ARN) of an IAM role used by the new crawler to access customer resources.

Type: String

Required: Yes

### Schedule

A cron expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

Type: String

Required: No

### SchemaChangePolicy

The policy for the crawler's update and deletion behavior.



Type: [SchemaChangePolicy](#) object

Required: No

### [TablePrefix](#)

The table prefix used for catalog tables that are created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### [Tags](#)

The tags to use with this crawler request. You may use tags to limit access to the crawler. For more information about tags in AWS Glue, see [AWS Tags in AWS Glue](#) in the developer guide.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

### [Targets](#)

A list of collection of targets to crawl.

Type: [CrawlerTargets](#) object

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateCustomEntityType

Creates a custom pattern that is used to detect sensitive data across the columns and rows of your structured data.

Each custom pattern you create specifies a regular expression and an optional list of context words. If no context words are passed only a regular expression is checked.

## Request Syntax

```
{
  "ContextWords": [ "string" ],
  "Name": "string",
  "RegexString": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ContextWords

A list of context words. If none of these context words are found within the vicinity of the regular expression the data will not be detected as sensitive data.

If no context words are passed only a regular expression is checked.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Name

A name for the custom pattern that allows it to be retrieved or deleted later. This name must be unique per AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## RegexString

A regular expression string that is used for detecting sensitive data in a custom pattern.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Tags

A list of tags applied to the custom entity type.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{  
  "Name": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

The name of the custom pattern you created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDatabase

Creates a new database in a Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseInput": {
    "CreateTableDefaultPermissions": [
      {
        "Permissions": [ "string" ],
        "Principal": {
          "DataLakePrincipalIdentifier": "string"
        }
      }
    ],
    "Description": "string",
    "FederatedDatabase": {
      "ConnectionName": "string",
      "Identifier": "string"
    },
    "LocationUri": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "TargetDatabase": {
      "CatalogId": "string",
      "DatabaseName": "string",
      "Region": "string"
    }
  },
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which to create the database. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseInput

The metadata for the database.

Type: [DatabaseInput](#) object

Required: Yes

### Tags

The tags you assign to the database.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).



**AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

**ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

**FederatedResourceAlreadyExistsException**

A federated resource already exists.

HTTP Status Code: 400

**GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

**InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

**InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

**OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

**ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## Description

A description of the data quality ruleset.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Name

A unique name for the data quality ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Ruleset

A Data Quality Definition Language (DQDL) ruleset. For more information, see the AWS Glue developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Required: Yes

## Tags

A list of tags applied to the data quality ruleset.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

### TargetTable

A target table associated with the data quality ruleset.

Type: [DataQualityTargetTable](#) object

Required: No

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

A unique name for the data quality ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDevEndpoint

Creates a new development endpoint.

## Request Syntax

```
{
  "Arguments": {
    "string" : "string"
  },
  "EndpointName": "string",
  "ExtraJarsS3Path": "string",
  "ExtraPythonLibsS3Path": "string",
  "GlueVersion": "string",
  "NumberOfNodes": number,
  "NumberOfWorkers": number,
  "PublicKey": "string",
  "PublicKeys": [ "string" ],
  "RoleArn": "string",
  "SecurityConfiguration": "string",
  "SecurityGroupIds": [ "string" ],
  "SubnetId": "string",
  "Tags": {
    "string" : "string"
  },
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Arguments

A map of arguments used to configure the DevEndpoint.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Required: No

### EndpointName

The name to be assigned to the new DevEndpoint.

Type: String

Required: Yes

### ExtraJarsS3Path

The path to one or more Java `.jar` files in an S3 bucket that should be loaded in your DevEndpoint.

Type: String

Required: No

### ExtraPythonLibsS3Path

The paths to one or more Python libraries in an Amazon S3 bucket that should be loaded in your DevEndpoint. Multiple values must be complete paths separated by a comma.

#### **Note**

You can only use pure Python libraries with a DevEndpoint. Libraries that rely on C extensions, such as the [pandas](#) Python data analysis library, are not yet supported.

Type: String

Required: No

### GlueVersion

Glue version determines the versions of Apache Spark and Python that AWS Glue supports. The Python version indicates the version supported for running your ETL scripts on development endpoints.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Development endpoints that are created without specifying a Glue version default to Glue 0.9.



You can specify a version of Python support for development endpoints by using the `Arguments` parameter in the `CreateDevEndpoint` or `UpdateDevEndpoint` APIs. If no arguments are provided, the version defaults to Python 2.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### NumberOfNodes

The number of AWS Glue Data Processing Units (DPUs) to allocate to this `DevEndpoint`.

Type: Integer

Required: No

### NumberOfWorkers

The number of workers of a defined `workerType` that are allocated to the development endpoint.

The maximum number of workers you can define are 299 for `G.1X`, and 149 for `G.2X`.

Type: Integer

Required: No

### PublicKey

The public key to be used by this `DevEndpoint` for authentication. This attribute is provided for backward compatibility because the recommended attribute to use is public keys.

Type: String

Required: No

### PublicKeys

A list of public keys to be used by the development endpoints for authentication. The use of this attribute is preferred over a single public key because the public keys allow you to have a different private key per client.

**Note**

If you previously created an endpoint with a public key, you must remove that key to be able to set a list of public keys. Call the `UpdateDevEndpoint` API with the public key content in the `deletePublicKeys` attribute, and the list of new keys in the `addPublicKeys` attribute.

Type: Array of strings

Array Members: Maximum number of 5 items.

Required: No

**RoleArn**

The IAM role for the DevEndpoint.

Type: String

Pattern: `arn:aws:iam::\d{12}:role/.*`

Required: Yes

**SecurityConfiguration**

The name of the SecurityConfiguration structure to be used with this DevEndpoint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

**SecurityGroupIds**

Security group IDs for the security groups to be used by the new DevEndpoint.

Type: Array of strings

Required: No

## SubnetId

The subnet ID for the new DevEndpoint to use.

Type: String

Required: No

## Tags

The tags to use with this DevEndpoint. You may use tags to limit access to the DevEndpoint. For more information about tags in AWS Glue, see [AWS Tags in AWS Glue](#) in the developer guide.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## WorkerType

The type of predefined worker that is allocated to the development endpoint. Accepts a value of Standard, G.1X, or G.2X.

- For the Standard worker type, each worker provides 4 vCPU, 16 GB of memory and a 50GB disk, and 2 executors per worker.
- For the G.1X worker type, each worker maps to 1 DPU (4 vCPU, 16 GB of memory, 64 GB disk), and provides 1 executor per worker. We recommend this worker type for memory-intensive jobs.
- For the G.2X worker type, each worker maps to 2 DPU (8 vCPU, 32 GB of memory, 128 GB disk), and provides 1 executor per worker. We recommend this worker type for memory-intensive jobs.

Known issue: when a development endpoint is created with the G.2X WorkerType configuration, the Spark drivers for the development endpoint will run on 4 vCPU, 16 GB of memory, and a 64 GB disk.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## Response Syntax

```
{
  "Arguments": {
    "string" : "string"
  },
  "AvailabilityZone": "string",
  "CreatedTimestamp": number,
  "EndpointName": "string",
  "ExtraJarsS3Path": "string",
  "ExtraPythonLibsS3Path": "string",
  "FailureReason": "string",
  "GlueVersion": "string",
  "NumberOfNodes": number,
  "NumberOfWorkers": number,
  "RoleArn": "string",
  "SecurityConfiguration": "string",
  "SecurityGroupIds": [ "string" ],
  "Status": "string",
  "SubnetId": "string",
  "VpcId": "string",
  "WorkerType": "string",
  "YarnEndpointAddress": "string",
  "ZeppelinRemoteSparkInterpreterPort": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arguments

The map of arguments used to configure this DevEndpoint.

Valid arguments are:

- `--enable-glue-datacatalog": ""`

You can specify a version of Python support for development endpoints by using the `Arguments` parameter in the `CreateDevEndpoint` or `UpdateDevEndpoint` APIs. If no arguments are provided, the version defaults to Python 2.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

### AvailabilityZone

The AWS Availability Zone where this `DevEndpoint` is located.

Type: String

### CreatedTimestamp

The point in time at which this `DevEndpoint` was created.

Type: Timestamp

### EndpointName

The name assigned to the new `DevEndpoint`.

Type: String

### ExtraJarsS3Path

Path to one or more Java `.jar` files in an S3 bucket that will be loaded in your `DevEndpoint`.

Type: String

### ExtraPythonLibsS3Path

The paths to one or more Python libraries in an S3 bucket that will be loaded in your `DevEndpoint`.

Type: String

### FailureReason

The reason for a current failure in this `DevEndpoint`.

Type: String

## GlueVersion

Glue version determines the versions of Apache Spark and Python that AWS Glue supports. The Python version indicates the version supported for running your ETL scripts on development endpoints.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

## NumberOfNodes

The number of AWS Glue Data Processing Units (DPUs) allocated to this DevEndpoint.

Type: Integer

## NumberOfWorkers

The number of workers of a defined `workerType` that are allocated to the development endpoint.

Type: Integer

## RoleArn

The Amazon Resource Name (ARN) of the role assigned to the new DevEndpoint.

Type: String

Pattern: `arn:aws:iam::\d{12}:role/.*`

## SecurityConfiguration

The name of the `SecurityConfiguration` structure being used with this DevEndpoint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\uD800-\uDC00-\uDBFF\uDFFF\t]*`

## SecurityGroupIds

The security groups assigned to the new DevEndpoint.

Type: Array of strings

## Status

The current status of the new DevEndpoint.

Type: String

## SubnetId

The subnet ID assigned to the new DevEndpoint.

Type: String

## VpcId

The ID of the virtual private cloud (VPC) used by this DevEndpoint.

Type: String

## WorkerType

The type of predefined worker that is allocated to the development endpoint. May be a value of Standard, G.1X, or G.2X.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

## YarnEndpointAddress

The address of the YARN endpoint used by this DevEndpoint.

Type: String

## ZeppelinRemoteSparkInterpreterPort

The Apache Zeppelin port for the remote Apache Spark interpreter.

Type: Integer

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

**AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

**IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

**InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

**InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

**OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

**ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

**ValidationException**

A value could not be validated.

HTTP Status Code: 400



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateJob

Creates a new job definition.

## Request Syntax

```
{
  "AllocatedCapacity": number,
  "CodeGenConfigurationNodes": {
    "string" : {
      "Aggregate": {
        "Aggs": [
          {
            "AggFunc": "string",
            "Column": [ "string" ]
          }
        ],
        "Groups": [
          [ "string" ]
        ],
        "Inputs": [ "string" ],
        "Name": "string"
      },
      "AmazonRedshiftSource": {
        "Data": {
          "AccessType": "string",
          "Action": "string",
          "AdvancedOptions": [
            {
              "Key": "string",
              "Value": "string"
            }
          ],
          "CatalogDatabase": {
            "Description": "string",
            "Label": "string",
            "Value": "string"
          },
          "CatalogRedshiftSchema": "string",
          "CatalogRedshiftTable": "string",
          "CatalogTable": {
            "Description": "string",
            "Label": "string",
```

```
    "Value": "string"
  },
  "Connection": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "CrawlerConnection": "string",
  "IamRole": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "MergeAction": "string",
  "MergeClause": "string",
  "MergeWhenMatched": "string",
  "MergeWhenNotMatched": "string",
  "PostAction": "string",
  "PreAction": "string",
  "SampleQuery": "string",
  "Schema": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "SelectedColumns": [
    {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    }
  ],
  "SourceType": "string",
  "StagingTable": "string",
  "Table": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "TablePrefix": "string",
  "TableSchema": [
    {
      "Description": "string",
      "Label": "string",
```

```
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Name": "string"
},
"AmazonRedshiftTarget": {
  "Data": {
    "AccessType": "string",
    "Action": "string",
    "AdvancedOptions": [
      {
        "Key": "string",
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}
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```

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  "Name": "string"
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  "Name": "string",
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      "IsNullString": boolean
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        "Value": "string"
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    ]
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          "Value": [ "string" ]
        }
      ]
    }
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  "Name": "string"
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        ]
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    "Name": "string",
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    "Table": "string"
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    "TargetPath": [ "string" ]
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    "Name": "string",
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            "Columns": [
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```

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            "Type": "string"
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}
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                    "Type": "string"
                }
            ]
        }
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    "PartitionKeys": [
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    ],
}

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            "Type": "string"
          }
        ]
      }
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    "WriteHeader": boolean
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    "PartitionKeys": [
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    ],
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      "Table": "string",
      "UpdateBehavior": "string"
    }
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    },
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    "OutputSchemas": [

```

```

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  ],
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    "PartitionKeys": [
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        "Table": "string",
        "UpdateBehavior": "string"
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    ],
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            "Type": "string"
          }
        ]
      }
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          "Type": "string"
        }
      ]
    }
  ],
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},
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  "Name": "string",
  "Paths": [
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  ]
},
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  "Inputs": [ "string" ],
  "Name": "string"
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  },
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    "Label": "string",
    "Value": "string"
  },
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  "MergeClause": "string",
  "MergeWhenMatched": "string",
  "MergeWhenNotMatched": "string",
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      "Value": "string"
    }
  ],
  "SourceType": "string",
  "StagingTable": "string",
  "Table": "string",
  "TableSchema": [
    {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    }
  ],
  "TempDir": "string",
  "Upsert": boolean
},
"Name": "string",
"OutputSchemas": [
  {
    "Columns": [
      {
        "Name": "string",
```

```

        "Type": "string"
      }
    ]
  },
  "SnowflakeTarget": {
    "Data": {
      "Action": "string",
      "AdditionalOptions": {
        "string": "string"
      },
      "AutoPushdown": boolean,
      "Connection": {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      },
      "Database": "string",
      "IamRole": {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      },
      "MergeAction": "string",
      "MergeClause": "string",
      "MergeWhenMatched": "string",
      "MergeWhenNotMatched": "string",
      "PostAction": "string",
      "PreAction": "string",
      "SampleQuery": "string",
      "Schema": "string",
      "SelectedColumns": [
        {
          "Description": "string",
          "Label": "string",
          "Value": "string"
        }
      ],
      "SourceType": "string",
      "StagingTable": "string",
      "Table": "string",
      "TableSchema": [
        {

```

```

        "Description": "string",
        "Label": "string",
        "Value": "string"
    }
],
    "TempDir": "string",
    "Upsert": boolean
},
    "Inputs": [ "string" ],
    "Name": "string"
},
    "SparkConnectorSource": {
        "AdditionalOptions": {
            "string" : "string"
        },
        "ConnectionName": "string",
        "ConnectionType": "string",
        "ConnectorName": "string",
        "Name": "string",
        "OutputSchemas": [
            {
                "Columns": [
                    {
                        "Name": "string",
                        "Type": "string"
                    }
                ]
            }
        ]
    },
    "SparkConnectorTarget": {
        "AdditionalOptions": {
            "string" : "string"
        },
        "ConnectionName": "string",
        "ConnectionType": "string",
        "ConnectorName": "string",
        "Inputs": [ "string" ],
        "Name": "string",
        "OutputSchemas": [
            {
                "Columns": [
                    {
                        "Name": "string",

```

```

        "Type": "string"
      }
    ]
  },
  "SparkSQL": {
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "SqlAliases": [
      {
        "Alias": "string",
        "From": "string"
      }
    ],
    "SqlQuery": "string"
  },
  "Spigot": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Path": "string",
    "Prob": number,
    "Topk": number
  },
  "SplitFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Paths": [
      [ "string" ]
    ]
  },
  "Union": {
    "Inputs": [ "string" ],
    "Name": "string",

```

```
        "UnionType": "string"
    }
}
},
"Command": {
    "Name": "string",
    "PythonVersion": "string",
    "Runtime": "string",
    "ScriptLocation": "string"
},
"Connections": {
    "Connections": [ "string" ]
},
"DefaultArguments": {
    "string" : "string"
},
"Description": "string",
"ExecutionClass": "string",
"ExecutionProperty": {
    "MaxConcurrentRuns": number
},
"GlueVersion": "string",
"LogUri": "string",
"MaxCapacity": number,
"MaxRetries": number,
"Name": "string",
"NonOverridableArguments": {
    "string" : "string"
},
"NotificationProperty": {
    "NotifyDelayAfter": number
},
"NumberOfWorkers": number,
"Role": "string",
"SecurityConfiguration": "string",
"SourceControlDetails": {
    "AuthStrategy": "string",
    "AuthToken": "string",
    "Branch": "string",
    "Folder": "string",
    "LastCommitId": "string",
    "Owner": "string",
    "Provider": "string",
    "Repository": "string"
}
```

```
},
  "Tags": {
    "string" : "string"
  },
  "Timeout": number,
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AllocatedCapacity

This parameter is deprecated. Use `MaxCapacity` instead.

The number of AWS Glue data processing units (DPUs) to allocate to this Job. You can allocate a minimum of 2 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

Type: Integer

Required: No

### CodeGenConfigurationNodes

The representation of a directed acyclic graph on which both the Glue Studio visual component and Glue Studio code generation is based.

Type: String to [CodeGenConfigurationNode](#) object map

Key Pattern: `[A-Za-z0-9_-]*`

Required: No

### Command

The JobCommand that runs this job.

Type: [JobCommand](#) object

Required: Yes

## Connections

The connections used for this job.

Type: [ConnectionsList](#) object

Required: No

## DefaultArguments

The default arguments for every run of this job, specified as name-value pairs.

You can specify arguments here that your own job-execution script consumes, as well as arguments that AWS Glue itself consumes.

Job arguments may be logged. Do not pass plaintext secrets as arguments. Retrieve secrets from a AWS Glue Connection, AWS Secrets Manager or other secret management mechanism if you intend to keep them within the Job.

For information about how to specify and consume your own Job arguments, see the [Calling AWS Glue APIs in Python](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Spark jobs, see the [Special Parameters Used by AWS Glue](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Ray jobs, see [Using job parameters in Ray jobs](#) in the developer guide.

Type: String to string map

Required: No

## Description

Description of the job being defined.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No



## ExecutionClass

Indicates whether the job is run with a standard or flexible execution class. The standard execution-class is ideal for time-sensitive workloads that require fast job startup and dedicated resources.

The flexible execution class is appropriate for time-insensitive jobs whose start and completion times may vary.

Only jobs with AWS Glue version 3.0 and above and command type `glueetl` will be allowed to set `ExecutionClass` to FLEX. The flexible execution class is available for Spark jobs.

Type: String

Length Constraints: Maximum length of 16.

Valid Values: FLEX | STANDARD

Required: No

## ExecutionProperty

An `ExecutionProperty` specifying the maximum number of concurrent runs allowed for this job.

Type: [ExecutionProperty](#) object

Required: No

## GlueVersion

In Spark jobs, `GlueVersion` determines the versions of Apache Spark and Python that AWS Glue available in a job. The Python version indicates the version supported for jobs of type Spark.

Ray jobs should set `GlueVersion` to `4.0` or greater. However, the versions of Ray, Python and additional libraries available in your Ray job are determined by the `Runtime` parameter of the Job command.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Jobs that are created without specifying a Glue version default to Glue 0.9.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### LogUri

This field is reserved for future use.

Type: String

Required: No

### MaxCapacity

For Glue version 1.0 or earlier jobs, using the standard worker type, the number of AWS Glue data processing units (DPUs) that can be allocated when this job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

For Glue version 2.0+ jobs, you cannot specify a `MaximumCapacity`. Instead, you should specify a `WorkerType` and the `NumberOfWorkers`.

Do not set `MaxCapacity` if using `WorkerType` and `NumberOfWorkers`.

The value that can be allocated for `MaxCapacity` depends on whether you are running a Python shell job, an Apache Spark ETL job, or an Apache Spark streaming ETL job:

- When you specify a Python shell job (`JobCommand.Name="pythonshell"`), you can allocate either 0.0625 or 1 DPU. The default is 0.0625 DPU.
- When you specify an Apache Spark ETL job (`JobCommand.Name="glueetl"`) or Apache Spark streaming ETL job (`JobCommand.Name="gluestreaming"`), you can allocate from 2 to 100 DPUs. The default is 10 DPUs. This job type cannot have a fractional DPU allocation.

Type: Double

Required: No

### MaxRetries

The maximum number of times to retry this job if it fails.

Type: Integer

Required: No

### Name

The name you assign to this job definition. It must be unique in your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### NonOverridableArguments

Arguments for this job that are not overridden when providing job arguments in a job run, specified as name-value pairs.

Type: String to string map

Required: No

### NotificationProperty

Specifies configuration properties of a job notification.

Type: [NotificationProperty](#) object

Required: No

### NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when a job runs.

Type: Integer

Required: No

### Role

The name or Amazon Resource Name (ARN) of the IAM role associated with this job.

Type: String

Required: Yes

## SecurityConfiguration

The name of the SecurityConfiguration structure to be used with this job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## SourceControlDetails

The details for a source control configuration for a job, allowing synchronization of job artifacts to or from a remote repository.

Type: [SourceControlDetails](#) object

Required: No

## Tags

The tags to use with this job. You may use tags to limit access to the job. For more information about tags in AWS Glue, see [AWS Tags in AWS Glue](#) in the developer guide.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Timeout

The job timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## WorkerType

The type of predefined worker that is allocated when a job runs. Accepts a value of G.1X, G.2X, G.4X, G.8X or G.025X for Spark jobs. Accepts the value Z.2X for Ray jobs.

- For the G.1X worker type, each worker maps to 1 DPU (4 vCPUs, 16 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.2X worker type, each worker maps to 2 DPU (8 vCPUs, 32 GB of memory) with 128GB disk (approximately 77GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.4X worker type, each worker maps to 4 DPU (16 vCPUs, 64 GB of memory) with 256GB disk (approximately 235GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs in the following AWS Regions: US East (Ohio), US East (N. Virginia), US West (Oregon), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), Canada (Central), Europe (Frankfurt), Europe (Ireland), and Europe (Stockholm).
- For the G.8X worker type, each worker maps to 8 DPU (32 vCPUs, 128 GB of memory) with 512GB disk (approximately 487GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs, in the same AWS Regions as supported for the G.4X worker type.
- For the G.025X worker type, each worker maps to 0.25 DPU (2 vCPUs, 4 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for low volume streaming jobs. This worker type is only available for AWS Glue version 3.0 streaming jobs.
- For the Z.2X worker type, each worker maps to 2 M-DPU (8vCPUs, 64 GB of memory) with 128 GB disk (approximately 120GB free), and provides up to 8 Ray workers based on the autoscaler.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

The unique name that was provided for this job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateMLTransform

Creates an AWS Glue machine learning transform. This operation creates the transform and all the necessary parameters to train it.

Call this operation as the first step in the process of using a machine learning transform (such as the FindMatches transform) for deduplicating data. You can provide an optional Description, in addition to the parameters that you want to use for your algorithm.

You must also specify certain parameters for the tasks that AWS Glue runs on your behalf as part of learning from your data and creating a high-quality machine learning transform. These parameters include Role, and optionally, AllocatedCapacity, Timeout, and MaxRetries. For more information, see [Jobs](#).

## Request Syntax

```
{
  "Description": "string",
  "GlueVersion": "string",
  "InputRecordTables": [
    {
      "AdditionalOptions": {
        "string" : "string"
      },
      "CatalogId": "string",
      "ConnectionName": "string",
      "DatabaseName": "string",
      "TableName": "string"
    }
  ],
  "MaxCapacity": number,
  "MaxRetries": number,
  "Name": "string",
  "NumberOfWorkers": number,
  "Parameters": {
    "FindMatchesParameters": {
      "AccuracyCostTradeoff": number,
      "EnforceProvidedLabels": boolean,
      "PrecisionRecallTradeoff": number,
      "PrimaryKeyColumnName": "string"
    }
  },
  "TransformType": "string"
```



```
  },
  "Role": "string",
  "Tags": {
    "string" : "string"
  },
  "Timeout": number,
  "TransformEncryption": {
    "MLUserDataEncryption": {
      "KmsKeyId": "string",
      "MLUserDataEncryptionMode": "string"
    },
    "TaskRunSecurityConfigurationName": "string"
  },
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description of the machine learning transform that is being defined. The default is an empty string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### GlueVersion

This value determines which version of AWS Glue this machine learning transform is compatible with. Glue 1.0 is recommended for most customers. If the value is not set, the Glue compatibility defaults to Glue 0.9. For more information, see [AWS Glue Versions](#) in the developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### InputRecordTables

A list of AWS Glue table definitions used by the transform.

Type: Array of [GlueTable](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

### MaxCapacity

The number of AWS Glue data processing units (DPUs) that are allocated to task runs for this transform. You can allocate from 2 to 100 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

MaxCapacity is a mutually exclusive option with NumberOfWorkers and WorkerType.

- If either NumberOfWorkers or WorkerType is set, then MaxCapacity cannot be set.
- If MaxCapacity is set then neither NumberOfWorkers or WorkerType can be set.
- If WorkerType is set, then NumberOfWorkers is required (and vice versa).
- MaxCapacity and NumberOfWorkers must both be at least 1.

When the WorkerType field is set to a value other than Standard, the MaxCapacity field is set automatically and becomes read-only.

When the WorkerType field is set to a value other than Standard, the MaxCapacity field is set automatically and becomes read-only.

Type: Double

Required: No

### MaxRetries

The maximum number of times to retry a task for this transform after a task run fails.

Type: Integer

Required: No

### Name

The unique name that you give the transform when you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when this task runs.

If `WorkerType` is set, then `NumberOfWorkers` is required (and vice versa).

Type: Integer

Required: No

### Parameters

The algorithmic parameters that are specific to the transform type used. Conditionally dependent on the transform type.

Type: [TransformParameters](#) object

Required: Yes

### Role

The name or Amazon Resource Name (ARN) of the IAM role with the required permissions. The required permissions include both AWS Glue service role permissions to AWS Glue resources, and Amazon S3 permissions required by the transform.

- This role needs AWS Glue service role permissions to allow access to resources in AWS Glue. See [Attach a Policy to IAM Users That Access AWS Glue](#).
- This role needs permission to your Amazon Simple Storage Service (Amazon S3) sources, targets, temporary directory, scripts, and any libraries used by the task run for this transform.

Type: String

Required: Yes

### Tags

The tags to use with this machine learning transform. You may use tags to limit access to the machine learning transform. For more information about tags in AWS Glue, see [AWS Tags in AWS Glue](#) in the developer guide.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

### Timeout

The timeout of the task run for this transform in minutes. This is the maximum time that a task run for this transform can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### TransformEncryption

The encryption-at-rest settings of the transform that apply to accessing user data. Machine learning transforms can access user data encrypted in Amazon S3 using KMS.

Type: [TransformEncryption](#) object

Required: No

### WorkerType

The type of predefined worker that is allocated when this task runs. Accepts a value of Standard, G.1X, or G.2X.

- For the Standard worker type, each worker provides 4 vCPU, 16 GB of memory and a 50GB disk, and 2 executors per worker.
- For the G.1X worker type, each worker provides 4 vCPU, 16 GB of memory and a 64GB disk, and 1 executor per worker.
- For the G.2X worker type, each worker provides 8 vCPU, 32 GB of memory and a 128GB disk, and 1 executor per worker.

MaxCapacity is a mutually exclusive option with NumberOfWorkers and WorkerType.

- If either NumberOfWorkers or WorkerType is set, then MaxCapacity cannot be set.
- If MaxCapacity is set then neither NumberOfWorkers or WorkerType can be set.
- If WorkerType is set, then NumberOfWorkers is required (and vice versa).
- MaxCapacity and NumberOfWorkers must both be at least 1.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## Response Syntax

```
{
  "TransformId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TransformId

A unique identifier that is generated for the transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreatePartition

Creates a new partition.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionInput": {
    "LastAccessTime": number,
    "LastAnalyzedTime": number,
    "Parameters": {
      "string" : "string"
    },
    "StorageDescriptor": {
      "AdditionalLocations": [ "string" ],
      "BucketColumns": [ "string" ],
      "Columns": [
        {
          "Comment": "string",
          "Name": "string",
          "Parameters": {
            "string" : "string"
          },
          "Type": "string"
        }
      ],
      "Compressed": boolean,
      "InputFormat": "string",
      "Location": "string",
      "NumberOfBuckets": number,
      "OutputFormat": "string",
      "Parameters": {
        "string" : "string"
      },
      "SchemaReference": {
        "SchemaId": {
          "RegistryName": "string",
          "SchemaArn": "string",
          "SchemaName": "string"
        },
        "SchemaVersionId": "string",
```



```

    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"Values": [ "string" ]
},
"TableName": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The AWS account ID of the catalog in which the partition is to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: No

### DatabaseName

The name of the metadata database in which the partition is to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionInput

A `PartitionInput` structure defining the partition to be created.

Type: [PartitionInput](#) object

Required: Yes

### TableName

The name of the metadata table in which the partition is to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreatePartitionIndex

Creates a specified partition index in an existing table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionIndex": {
    "IndexName": "string",
    "Keys": [ "string" ]
  },
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The catalog ID where the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

Specifies the name of a database in which you want to create a partition index.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionIndex

Specifies a `PartitionIndex` structure to create a partition index in an existing table.

Type: [PartitionIndex](#) object

Required: Yes

### TableName

Specifies the name of a table in which you want to create a partition index.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateRegistry

Creates a new registry which may be used to hold a collection of schemas.

## Request Syntax

```
{
  "Description": "string",
  "RegistryName": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description of the registry. If description is not provided, there will not be any default value for this.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### RegistryName

Name of the registry to be created of max length of 255, and may only contain letters, numbers, hyphen, underscore, dollar sign, or hash mark. No whitespace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`



Required: Yes

## Tags

AWS tags that contain a key value pair and may be searched by console, command line, or API.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "Description": "string",
  "RegistryArn": "string",
  "RegistryName": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Description

A description of the registry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\r\\n\\t]*`

## RegistryArn

The Amazon Resource Name (ARN) of the newly created registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

## RegistryName

The name of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

## Tags

The tags for the registry.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateSchema

Creates a new schema set and registers the schema definition. Returns an error if the schema set already exists without actually registering the version.

When the schema set is created, a version checkpoint will be set to the first version. Compatibility mode "DISABLED" restricts any additional schema versions from being added after the first schema version. For all other compatibility modes, validation of compatibility settings will be applied only from the second version onwards when the RegisterSchemaVersion API is used.

When this API is called without a RegistryId, this will create an entry for a "default-registry" in the registry database tables, if it is not already present.

## Request Syntax

```
{
  "Compatibility": "string",
  "DataFormat": "string",
  "Description": "string",
  "RegistryId": {
    "RegistryArn": "string",
    "RegistryName": "string"
  },
  "SchemaDefinition": "string",
  "SchemaName": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Compatibility

The compatibility mode of the schema. The possible values are:

- **NONE**: No compatibility mode applies. You can use this choice in development scenarios or if you do not know the compatibility mode that you want to apply to schemas. Any new version added will be accepted without undergoing a compatibility check.
- **DISABLED**: This compatibility choice prevents versioning for a particular schema. You can use this choice to prevent future versioning of a schema.
- **BACKWARD**: This compatibility choice is recommended as it allows data receivers to read both the current and one previous schema version. This means that for instance, a new schema version cannot drop data fields or change the type of these fields, so they can't be read by readers using the previous version.
- **BACKWARD\_ALL**: This compatibility choice allows data receivers to read both the current and all previous schema versions. You can use this choice when you need to delete fields or add optional fields, and check compatibility against all previous schema versions.
- **FORWARD**: This compatibility choice allows data receivers to read both the current and one next schema version, but not necessarily later versions. You can use this choice when you need to add fields or delete optional fields, but only check compatibility against the last schema version.
- **FORWARD\_ALL**: This compatibility choice allows data receivers to read written by producers of any new registered schema. You can use this choice when you need to add fields or delete optional fields, and check compatibility against all previous schema versions.
- **FULL**: This compatibility choice allows data receivers to read data written by producers using the previous or next version of the schema, but not necessarily earlier or later versions. You can use this choice when you need to add or remove optional fields, but only check compatibility against the last schema version.
- **FULL\_ALL**: This compatibility choice allows data receivers to read data written by producers using all previous schema versions. You can use this choice when you need to add or remove optional fields, and check compatibility against all previous schema versions.

Type: String

Valid Values: NONE | DISABLED | BACKWARD | BACKWARD\_ALL | FORWARD | FORWARD\_ALL | FULL | FULL\_ALL

Required: No

### DataFormat

The data format of the schema definition. Currently AVRO, JSON and PROTOBUF are supported.

Type: String

Valid Values: AVRO | JSON | PROTOBUF

Required: Yes

### Description

An optional description of the schema. If description is not provided, there will not be any automatic default value for this.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### RegistryId

This is a wrapper shape to contain the registry identity fields. If this is not provided, the default registry will be used. The ARN format for the same will be: `arn:aws:glue:us-east-2:<customer id>:registry/default-registry:random-5-letter-id`.

Type: [RegistryId](#) object

Required: No

### SchemaDefinition

The schema definition using the DataFormat setting for SchemaName.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170000.

Pattern: `.*\S.*`

Required: No

### SchemaName

Name of the schema to be created of max length of 255, and may only contain letters, numbers, hyphen, underscore, dollar sign, or hash mark. No whitespace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#. ]+

Required: Yes

## Tags

AWS tags that contain a key value pair and may be searched by console, command line, or API. If specified, follows the AWS tags-on-create pattern.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "Compatibility": "string",
  "DataFormat": "string",
  "Description": "string",
  "LatestSchemaVersion": number,
  "NextSchemaVersion": number,
  "RegistryArn": "string",
  "RegistryName": "string",
  "SchemaArn": "string",
  "SchemaCheckpoint": number,
  "SchemaName": "string",
  "SchemaStatus": "string",
  "SchemaVersionId": "string",
  "SchemaVersionStatus": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Compatibility

The schema compatibility mode.

Type: String

Valid Values: NONE | DISABLED | BACKWARD | BACKWARD\_ALL | FORWARD | FORWARD\_ALL | FULL | FULL\_ALL

### DataFormat

The data format of the schema definition. Currently AVRO, JSON and PROTOBUF are supported.

Type: String

Valid Values: AVRO | JSON | PROTOBUF

### Description

A description of the schema if specified when created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

### LatestSchemaVersion

The latest version of the schema associated with the returned schema definition.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

### NextSchemaVersion

The next version of the schema associated with the returned schema definition.



Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

### RegistryArn

The Amazon Resource Name (ARN) of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### RegistryName

The name of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

### SchemaArn

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### SchemaCheckpoint

The version number of the checkpoint (the last time the compatibility mode was changed).

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

### SchemaName

The name of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#. ]+

### SchemaStatus

The status of the schema.

Type: String

Valid Values: AVAILABLE | PENDING | DELETING

### SchemaVersionId

The unique identifier of the first schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

### SchemaVersionStatus

The status of the first schema version created.

Type: String

Valid Values: AVAILABLE | PENDING | FAILURE | DELETING

### Tags

The tags for the schema.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

**AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

**AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

**ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

**EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

**InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

**InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

**ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateScript

Transforms a directed acyclic graph (DAG) into code.

## Request Syntax

```
{
  "DagEdges": [
    {
      "Source": "string",
      "Target": "string",
      "TargetParameter": "string"
    }
  ],
  "DagNodes": [
    {
      "Args": [
        {
          "Name": "string",
          "Param": boolean,
          "Value": "string"
        }
      ],
      "Id": "string",
      "LineNumber": number,
      "NodeType": "string"
    }
  ],
  "Language": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DagEdges

A list of the edges in the DAG.

Type: Array of [CodeGenEdge](#) objects

Required: No

### DagNodes

A list of the nodes in the DAG.

Type: Array of [CodeGenNode](#) objects

Required: No

### Language

The programming language of the resulting code from the DAG.

Type: String

Valid Values: PYTHON | SCALA

Required: No

## Response Syntax

```
{
  "PythonScript": "string",
  "ScalaCode": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### PythonScript

The Python script generated from the DAG.

Type: String

### ScalaCode

The Scala code generated from the DAG.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateSecurityConfiguration

Creates a new security configuration. A security configuration is a set of security properties that can be used by AWS Glue. You can use a security configuration to encrypt data at rest. For information about using security configurations in AWS Glue, see [Encrypting Data Written by Crawlers, Jobs, and Development Endpoints](#).

## Request Syntax

```
{
  "EncryptionConfiguration": {
    "CloudWatchEncryption": {
      "CloudWatchEncryptionMode": "string",
      "KmsKeyArn": "string"
    },
    "JobBookmarksEncryption": {
      "JobBookmarksEncryptionMode": "string",
      "KmsKeyArn": "string"
    },
    "S3Encryption": [
      {
        "KmsKeyArn": "string",
        "S3EncryptionMode": "string"
      }
    ]
  },
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [EncryptionConfiguration](#)

The encryption configuration for the new security configuration.

Type: [EncryptionConfiguration](#) object

Required: Yes



## Name

The name for the new security configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "CreatedTimestamp": number,
  "Name": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedTimestamp

The time at which the new security configuration was created.

Type: Timestamp

### Name

The name assigned to the new security configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateSession

Creates a new session.

## Request Syntax

```
{
  "Command": {
    "Name": "string",
    "PythonVersion": "string"
  },
  "Connections": {
    "Connections": [ "string" ]
  },
  "DefaultArguments": {
    "string" : "string"
  },
  "Description": "string",
  "GlueVersion": "string",
  "Id": "string",
  "IdleTimeout": number,
  "MaxCapacity": number,
  "NumberOfWorkers": number,
  "RequestOrigin": "string",
  "Role": "string",
  "SecurityConfiguration": "string",
  "Tags": {
    "string" : "string"
  },
  "Timeout": number,
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Command

The SessionCommand that runs the job.

Type: [SessionCommand](#) object

Required: Yes

### Connections

The number of connections to use for the session.

Type: [ConnectionsList](#) object

Required: No

### DefaultArguments

A map array of key-value pairs. Max is 75 pairs.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 75 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\.\- _A-Za-z0-9]+`

Value Length Constraints: Minimum length of 0. Maximum length of 4096.

Value Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### Description

The description of the session.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### GlueVersion

The AWS Glue version determines the versions of Apache Spark and Python that AWS Glue supports. The GlueVersion must be greater than 2.0.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

## Id

The ID of the session request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## IdleTimeout

The number of minutes when idle before session times out. Default for Spark ETL jobs is value of Timeout. Consult the documentation for other job types.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## MaxCapacity

The number of AWS Glue data processing units (DPUs) that can be allocated when the job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB memory.

Type: Double

Required: No

## NumberOfWorkers

The number of workers of a defined `WorkerType` to use for the session.

Type: Integer



Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

### Timeout

The number of minutes before session times out. Default for Spark ETL jobs is 48 hours (2880 minutes), the maximum session lifetime for this job type. Consult the documentation for other job types.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### WorkerType

The type of predefined worker that is allocated when a job runs. Accepts a value of G.1X, G.2X, G.4X, or G.8X for Spark jobs. Accepts the value Z.2X for Ray notebooks.

- For the G.1X worker type, each worker maps to 1 DPU (4 vCPUs, 16 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.2X worker type, each worker maps to 2 DPU (8 vCPUs, 32 GB of memory) with 128GB disk (approximately 77GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.4X worker type, each worker maps to 4 DPU (16 vCPUs, 64 GB of memory) with 256GB disk (approximately 235GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs in the following AWS Regions: US East (Ohio), US East (N. Virginia), US West (Oregon), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), Canada (Central), Europe (Frankfurt), Europe (Ireland), and Europe (Stockholm).
- For the G.8X worker type, each worker maps to 8 DPU (32 vCPUs, 128 GB of memory) with 512GB disk (approximately 487GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs, in the same AWS Regions as supported for the G.4X worker type.



- For the Z.2X worker type, each worker maps to 2 M-DPU (8vCPUs, 64 GB of memory) with 128 GB disk (approximately 120GB free), and provides up to 8 Ray workers based on the autoscaler.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## Response Syntax

```
{
  "Session": {
    "Command": {
      "Name": "string",
      "PythonVersion": "string"
    },
    "CompletedOn": number,
    "Connections": {
      "Connections": [ "string" ]
    },
    "CreatedOn": number,
    "DefaultArguments": {
      "string": "string"
    },
    "Description": "string",
    "DPUSeconds": number,
    "ErrorMessage": "string",
    "ExecutionTime": number,
    "GlueVersion": "string",
    "Id": "string",
    "IdleTimeout": number,
    "MaxCapacity": number,
    "NumberOfWorkers": number,
    "Progress": number,
    "Role": "string",
    "SecurityConfiguration": "string",
    "Status": "string",
    "WorkerType": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Session

Returns the session object in the response.

Type: [Session](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## ValidationException

A value could not be validated.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateTable

Creates a new table definition in the Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "OpenTableFormatInput": {
    "IcebergInput": {
      "MetadataOperation": "string",
      "Version": "string"
    }
  },
  "PartitionIndexes": [
    {
      "IndexName": "string",
      "Keys": [ "string" ]
    }
  ],
  "TableInput": {
    "Description": "string",
    "LastAccessTime": number,
    "LastAnalyzedTime": number,
    "Name": "string",
    "Owner": "string",
    "Parameters": {
      "string" : "string"
    },
    "PartitionKeys": [
      {
        "Comment": "string",
        "Name": "string",
        "Parameters": {
          "string" : "string"
        },
        "Type": "string"
      }
    ],
    "Retention": number,
    "StorageDescriptor": {
      "AdditionalLocations": [ "string" ],
```

```
"BucketColumns": [ "string" ],
"Columns": [
  {
    "Comment": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "Type": "string"
  }
],
"Compressed": boolean,
"InputFormat": "string",
"Location": "string",
"NumberOfBuckets": number,
"OutputFormat": "string",
"Parameters": {
  "string" : "string"
},
"SchemaReference": {
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": number
},
"SerdeInfo": {
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "SerializationLibrary": "string"
},
"SkewedInfo": {
  "SkewedColumnNames": [ "string" ],
  "SkewedColumnValueLocationMaps": {
    "string" : "string"
  },
  "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
  {
```

```
        "Column": "string",
        "SortOrder": number
    }
],
"StoredAsSubDirectories": boolean
},
"TableType": "string",
"TargetTable": {
    "CatalogId": "string",
    "DatabaseName": "string",
    "Name": "string",
    "Region": "string"
},
"ViewExpandedText": "string",
"ViewOriginalText": "string"
},
"TransactionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which to create the Table. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The catalog database in which to create the new table. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### OpenTableFormatInput

Specifies an `OpenTableFormatInput` structure when creating an open format table.

Type: [OpenTableFormatInput](#) object

Required: No

### PartitionIndexes

A list of partition indexes, `PartitionIndex` structures, to create in the table.

Type: Array of [PartitionIndex](#) objects

Array Members: Maximum number of 3 items.

Required: No

### TableInput

The `TableInput` object that defines the metadata table to create in the catalog.

Type: [TableInput](#) object

Required: Yes

### TransactionId

The ID of the transaction.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\p{L}\p{N}\p{P}]*`

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNotReadyException**

A resource was not ready for a transaction.



HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableOptimizerConfiguration

A `TableOptimizerConfiguration` object representing the configuration of a table optimizer.

Type: [TableOptimizerConfiguration](#) object

Required: Yes

### Type

The type of table optimizer. Currently, the only valid value is `compaction`.

Type: String

Valid Values: `compaction`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

## AlreadyExistsException

A resource to be created or added already exists.

HTTP Status Code: 400

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateTrigger

Creates a new trigger.

## Request Syntax

```
{
  "Actions": [
    {
      "Arguments": {
        "string" : "string"
      },
      "CrawlerName": "string",
      "JobName": "string",
      "NotificationProperty": {
        "NotifyDelayAfter": number
      },
      "SecurityConfiguration": "string",
      "Timeout": number
    }
  ],
  "Description": "string",
  "EventBatchingCondition": {
    "BatchSize": number,
    "BatchWindow": number
  },
  "Name": "string",
  "Predicate": {
    "Conditions": [
      {
        "CrawlerName": "string",
        "CrawlState": "string",
        "JobName": "string",
        "LogicalOperator": "string",
        "State": "string"
      }
    ],
    "Logical": "string"
  },
  "Schedule": "string",
  "StartOnCreation": boolean,
  "Tags": {
    "string" : "string"
  }
}
```

```
  },  
  "Type": "string",  
  "WorkflowName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Actions

The actions initiated by this trigger when it fires.

Type: Array of [Action](#) objects

Required: Yes

### Description

A description of the new trigger.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### EventBatchingCondition

Batch condition that must be met (specified number of events received or batch time window expired) before EventBridge event trigger fires.

Type: [EventBatchingCondition](#) object

Required: No

### Name

The name of the trigger.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Predicate

A predicate to specify when the new trigger should fire.

This field is required when the trigger type is `CONDITIONAL`.

Type: [Predicate](#) object

Required: No

### Schedule

A cron expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

This field is required when the trigger type is `SCHEDULED`.

Type: String

Required: No

### StartOnCreation

Set to `true` to start `SCHEDULED` and `CONDITIONAL` triggers when created. `True` is not supported for `ON_DEMAND` triggers.

Type: Boolean

Required: No

### Tags

The tags to use with this trigger. You may use tags to limit access to the trigger. For more information about tags in AWS Glue, see [AWS Tags in AWS Glue](#) in the developer guide.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.



Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

### Type

The type of the new trigger.

Type: String

Valid Values: SCHEDULED | CONDITIONAL | ON\_DEMAND | EVENT

Required: Yes

### WorkflowName

The name of the workflow associated with the trigger.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{
  "Name": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

The name of the trigger.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateUserDefinedFunction

Creates a new function definition in the Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "FunctionInput": {
    "ClassName": "string",
    "FunctionName": "string",
    "OwnerName": "string",
    "OwnerType": "string",
    "ResourceUris": [
      {
        "ResourceType": "string",
        "Uri": "string"
      }
    ]
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which to create the function. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## DatabaseName

The name of the catalog database in which to create the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## FunctionInput

A `FunctionInput` object that defines the function to create in the Data Catalog.

Type: [UserDefinedFunctionInput](#) object

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateWorkflow

Creates a new workflow.

## Request Syntax

```
{
  "DefaultRunProperties": {
    "string" : "string"
  },
  "Description": "string",
  "MaxConcurrentRuns": number,
  "Name": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DefaultRunProperties

A collection of properties to be used as part of each execution of the workflow.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Description

A description of the workflow.

Type: String

Required: No

## MaxConcurrentRuns

You can use this parameter to prevent unwanted multiple updates to data, to control costs, or in some cases, to prevent exceeding the maximum number of concurrent runs of any of the component jobs. If you leave this parameter blank, there is no limit to the number of concurrent workflow runs.

Type: Integer

Required: No

## Name

The name to be assigned to the workflow. It should be unique within your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Tags

The tags to be used with this workflow.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "Name": "string"
}
```



## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

The name of the workflow which was provided as part of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteBlueprint

Deletes an existing blueprint.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the blueprint to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Name

Returns the name of the blueprint that was deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteClassifier

Removes a classifier from the Data Catalog.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

Name of the classifier to remove.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionValues

A list of partition values identifying the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## GlueEncryptionException

An encryption operation failed.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteConnection

Deletes a connection from the Data Catalog.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "ConnectionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which the connection resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ConnectionName

The name of the connection to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteCrawler

Removes a specified crawler from the AWS Glue Data Catalog, unless the crawler state is RUNNING.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the crawler to remove.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### CrawlerRunningException

The operation cannot be performed because the crawler is already running.

HTTP Status Code: 400

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## SchedulerTransitioningException

The specified scheduler is transitioning.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteCustomEntityType

Deletes a custom pattern by specifying its name.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the custom pattern that you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Name

The name of the custom pattern you deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Required: No

### Name

The name of the database to delete. For Hive compatibility, this must be all lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDevEndpoint

Deletes a specified development endpoint.

## Request Syntax

```
{  
  "EndpointName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointName

The name of the DevEndpoint.

Type: String

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteJob

Deletes a specified job definition. If the job definition is not found, no exception is thrown.

## Request Syntax

```
{  
  "JobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "JobName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## JobName

The name of the job definition that was deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteMLTransform

Deletes an AWS Glue machine learning transform. Machine learning transforms are a special type of transform that use machine learning to learn the details of the transformation to be performed by learning from examples provided by humans. These transformations are then saved by AWS Glue. If you no longer need a transform, you can delete it by calling `DeleteMLTransforms`. However, any AWS Glue jobs that still reference the deleted transform will no longer succeed.

## Request Syntax

```
{
  "TransformId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TransformId

The unique identifier of the transform to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "TransformId": "string"
}
```



## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TransformId

The unique identifier of the transform that was deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeletePartition

Deletes a specified partition.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "DatabaseName": "string",  
  "PartitionValues": [ "string" ],  
  "TableName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partition to be deleted resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u00DC-\u00BF\u00DF\u00t]*`

Required: No

### DatabaseName

The name of the catalog database in which the table in question resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u00DC-\u00BF\u00DF\u00t]*`

Required: Yes

## PartitionValues

The values that define the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

## TableName

The name of the table that contains the partition to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeletePartitionIndex

Deletes a specified partition index from an existing table.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "DatabaseName": "string",  
  "IndexName": "string",  
  "TableName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The catalog ID where the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

Specifies the name of a database from which you want to delete a partition index.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## IndexName

The name of the partition index to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## TableName

Specifies the name of a table from which you want to delete a partition index.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

The `CreatePartitions` API was called on a table that has indexes enabled.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## GlueEncryptionException

An encryption operation failed.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteRegistry

Delete the entire registry including schema and all of its versions. To get the status of the delete operation, you can call the GetRegistry API after the asynchronous call. Deleting a registry will deactivate all online operations for the registry such as the UpdateRegistry, CreateSchema, UpdateSchema, and RegisterSchemaVersion APIs.

## Request Syntax

```
{
  "RegistryId": {
    "RegistryArn": "string",
    "RegistryName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [RegistryId](#)

This is a wrapper structure that may contain the registry name and Amazon Resource Name (ARN).

Type: [RegistryId](#) object

Required: Yes

## Response Syntax

```
{
  "RegistryArn": "string",
  "RegistryName": "string",
  "Status": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RegistryArn

The Amazon Resource Name (ARN) of the registry being deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### RegistryName

The name of the registry being deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#.]+`

### Status

The status of the registry. A successful operation will return the `Deleting` status.

Type: String

Valid Values: `AVAILABLE | DELETING`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

## ConcurrentModificationException

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteResourcePolicy

Deletes a specified policy.

## Request Syntax

```
{  
  "PolicyHashCondition": "string",  
  "ResourceArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [PolicyHashCondition](#)

The hash value returned when this policy was set.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### [ResourceArn](#)

The ARN of the AWS Glue resource for the resource policy to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConditionCheckFailureException

A specified condition was not satisfied.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteSchema

Deletes the entire schema set, including the schema set and all of its versions. To get the status of the delete operation, you can call GetSchema API after the asynchronous call. Deleting a registry will deactivate all online operations for the schema, such as the GetSchemaByDefinition, and RegisterSchemaVersion APIs.

## Request Syntax

```
{
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [SchemaId](#)

This is a wrapper structure that may contain the schema name and Amazon Resource Name (ARN).

Type: [SchemaId](#) object

Required: Yes

## Response Syntax

```
{
  "SchemaArn": "string",
  "SchemaName": "string",
  "Status": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SchemaArn

The Amazon Resource Name (ARN) of the schema being deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### SchemaName

The name of the schema being deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

### Status

The status of the schema.

Type: String

Valid Values: AVAILABLE | PENDING | DELETING

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400



## ConcurrentModificationException

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteSchemaVersions

Remove versions from the specified schema. A version number or range may be supplied. If the compatibility mode forbids deleting of a version that is necessary, such as BACKWARDS\_FULL, an error is returned. Calling the GetSchemaVersions API after this call will list the status of the deleted versions.

When the range of version numbers contain check pointed version, the API will return a 409 conflict and will not proceed with the deletion. You have to remove the checkpoint first using the DeleteSchemaCheckpoint API before using this API.

You cannot use the DeleteSchemaVersions API to delete the first schema version in the schema set. The first schema version can only be deleted by the DeleteSchema API. This operation will also delete the attached SchemaVersionMetadata under the schema versions. Hard deletes will be enforced on the database.

If the compatibility mode forbids deleting of a version that is necessary, such as BACKWARDS\_FULL, an error is returned.

## Request Syntax

```
{
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "Versions": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### SchemaId

This is a wrapper structure that may contain the schema name and Amazon Resource Name (ARN).

Type: [Schemald](#) object

Required: Yes

### Versions

A version range may be supplied which may be of the format:

- a single version number, 5
- a range, 5-8 : deletes versions 5, 6, 7, 8

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100000.

Pattern: `[1-9][0-9]* | [1-9][0-9]* - [1-9][0-9]*`

Required: Yes

## Response Syntax

```
{
  "SchemaVersionErrors": [
    {
      "ErrorDetails": {
        "ErrorCode": "string",
        "ErrorMessage": "string"
      },
      "VersionNumber": number
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SchemaVersionErrors

A list of `SchemaVersionErrorItem` objects, each containing an error and schema version.

Type: Array of [SchemaVersionErrorItem](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### ConcurrentModificationException

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteSecurityConfiguration

Deletes a specified security configuration.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the security configuration to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





## Response Syntax

```
{  
  "Id": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Id

Returns the ID of the deleted session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **IllegalSessionStateException**

The session is in an invalid state to perform a requested operation.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## DatabaseName

The name of the catalog database in which the table resides. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Name

The name of the table to be deleted. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## TransactionId

The transaction ID at which to delete the table contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\p{L}\p{N}\p{P}]*`

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNotReadyException**

A resource was not ready for a transaction.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteTableOptimizer

Deletes an optimizer and all associated metadata for a table. The optimization will no longer be performed on the table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "TableName": "string",
  "Type": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Type

The type of table optimizer.

Type: String

Valid Values: `compaction`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.



HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Required: Yes

### TableName

The name of the table. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### VersionId

The ID of the table version to be deleted. A `VersionID` is a string representation of an integer. Each version is incremented by 1.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteTrigger

Deletes a specified trigger. If the trigger is not found, no exception is thrown.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the trigger to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Name

The name of the trigger that was deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteUserDefinedFunction

Deletes an existing function definition from the Data Catalog.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "DatabaseName": "string",  
  "FunctionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the function to be deleted is located. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database where the function is located.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes



## **FunctionName**

The name of the function definition to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## **Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteWorkflow

Deletes a workflow.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

Name of the workflow to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Name

Name of the workflow specified in input.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Required: Yes

## Response Syntax

```
{
  "Blueprint": {
    "BlueprintLocation": "string",
    "BlueprintServiceLocation": "string",
    "CreatedOn": number,
    "Description": "string",
    "ErrorMessage": "string",
    "LastActiveDefinition": {
      "BlueprintLocation": "string",
      "BlueprintServiceLocation": "string",
      "Description": "string",
      "LastModifiedOn": number,
      "ParameterSpec": "string"
    },
    "LastModifiedOn": number,
    "Name": "string",
    "ParameterSpec": "string",
    "Status": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Blueprint

Returns a Blueprint object.

Type: [Blueprint](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





## Response Syntax

```
{
  "BlueprintRun": {
    "BlueprintName": "string",
    "CompletedOn": number,
    "ErrorMessage": "string",
    "Parameters": "string",
    "RoleArn": "string",
    "RollbackErrorMessage": "string",
    "RunId": "string",
    "StartedOn": number,
    "State": "string",
    "WorkflowName": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### BlueprintRun

Returns a BlueprintRun object.

Type: [BlueprintRun](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerError

An internal service error occurred.

HTTP Status Code: 500

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Type: String

Required: No

## Response Syntax

```
{
  "BlueprintRuns": [
    {
      "BlueprintName": "string",
      "CompletedOn": number,
      "ErrorMessage": "string",
      "Parameters": "string",
      "RoleArn": "string",
      "RollbackErrorMessage": "string",
      "RunId": "string",
      "StartedOn": number,
      "State": "string",
      "WorkflowName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### BlueprintRuns

Returns a list of `BlueprintRun` objects.

Type: Array of [BlueprintRun](#) objects

### NextToken

A continuation token, if not all blueprint runs have been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# GetCatalogImportStatus

Retrieves the status of a migration operation.

## Request Syntax

```
{  
  "CatalogId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the catalog to migrate. Currently, this should be the AWS account ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{  
  "ImportStatus": {  
    "ImportCompleted": boolean,  
    "ImportedBy": "string",  
    "ImportTime": number  
  }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

## ImportStatus

The status of the specified catalog migration.

Type: [CatalogImportStatus](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





```

    "Header": [ "string" ],
    "LastUpdated": number,
    "Name": "string",
    "QuoteSymbol": "string",
    "Serde": "string",
    "Version": number
  },
  "GrokClassifier": {
    "Classification": "string",
    "CreationTime": number,
    "CustomPatterns": "string",
    "GrokPattern": "string",
    "LastUpdated": number,
    "Name": "string",
    "Version": number
  },
  "JsonClassifier": {
    "CreationTime": number,
    "JsonPath": "string",
    "LastUpdated": number,
    "Name": "string",
    "Version": number
  },
  "XMLClassifier": {
    "Classification": "string",
    "CreationTime": number,
    "LastUpdated": number,
    "Name": "string",
    "RowTag": "string",
    "Version": number
  }
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Classifier

The requested classifier.

Type: [Classifier](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetClassifiers

Lists all classifier objects in the Data Catalog.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The size of the list to return (optional).

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

An optional continuation token.

Type: String

Required: No

## Response Syntax

```
{
  "Classifiers": [
    {
      "CsvClassifier": {
        "AllowSingleColumn": boolean,
        "ContainsHeader": "string",
```

```
    "CreationTime": number,
    "CustomDatatypeConfigured": boolean,
    "CustomDatatypes": [ "string" ],
    "Delimiter": "string",
    "DisableValueTrimming": boolean,
    "Header": [ "string" ],
    "LastUpdated": number,
    "Name": "string",
    "QuoteSymbol": "string",
    "Serde": "string",
    "Version": number
  },
  "GrokClassifier": {
    "Classification": "string",
    "CreationTime": number,
    "CustomPatterns": "string",
    "GrokPattern": "string",
    "LastUpdated": number,
    "Name": "string",
    "Version": number
  },
  "JsonClassifier": {
    "CreationTime": number,
    "JsonPath": "string",
    "LastUpdated": number,
    "Name": "string",
    "Version": number
  },
  "XMLClassifier": {
    "Classification": "string",
    "CreationTime": number,
    "LastUpdated": number,
    "Name": "string",
    "RowTag": "string",
    "Version": number
  }
}
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Classifiers

The requested list of classifier objects.

Type: Array of [Classifier](#) objects

### NextToken

A continuation token.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)



- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetColumnStatisticsForPartition

Retrieves partition statistics of columns.

The Identity and Access Management (IAM) permission required for this operation is `GetPartition`.

## Request Syntax

```
{
  "CatalogId": "string",
  "ColumnNames": [ "string" ],
  "DatabaseName": "string",
  "PartitionValues": [ "string" ],
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partitions in question reside. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ColumnNames

A list of the column names.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionValues

A list of partition values identifying the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "ColumnStatisticsList": [
    {
      "AnalyzedTime": number,
      "ColumnName": "string",
```

```
"ColumnType": "string",
"StatisticsData": {
  "BinaryColumnStatisticsData": {
    "AverageLength": number,
    "MaximumLength": number,
    "NumberOfNulls": number
  },
  "BooleanColumnStatisticsData": {
    "NumberOfFalses": number,
    "NumberOfNulls": number,
    "NumberOfTrues": number
  },
  "DateColumnStatisticsData": {
    "MaximumValue": number,
    "MinimumValue": number,
    "NumberOfDistinctValues": number,
    "NumberOfNulls": number
  },
  "DecimalColumnStatisticsData": {
    "MaximumValue": {
      "Scale": number,
      "UnscaledValue": blob
    },
    "MinimumValue": {
      "Scale": number,
      "UnscaledValue": blob
    },
    "NumberOfDistinctValues": number,
    "NumberOfNulls": number
  },
  "DoubleColumnStatisticsData": {
    "MaximumValue": number,
    "MinimumValue": number,
    "NumberOfDistinctValues": number,
    "NumberOfNulls": number
  },
  "LongColumnStatisticsData": {
    "MaximumValue": number,
    "MinimumValue": number,
    "NumberOfDistinctValues": number,
    "NumberOfNulls": number
  },
  "StringColumnStatisticsData": {
    "AverageLength": number,
```

```
        "MaxLength": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
    },
    "Type": "string"
}
],
"Errors": [
{
    "ColumnName": "string",
    "Error": {
        "ErrorCode": "string",
        "ErrorMessage": "string"
    }
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ColumnStatisticsList

List of ColumnStatistics that failed to be retrieved.

Type: Array of [ColumnStatistics](#) objects

### Errors

Error occurred during retrieving column statistics data.

Type: Array of [ColumnError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Required: Yes

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "ColumnStatisticsList": [
    {
      "AnalyzedTime": number,
      "ColumnName": "string",
      "ColumnType": "string",
      "StatisticsData": {
        "BinaryColumnStatisticsData": {
          "AverageLength": number,
          "MaximumLength": number,
          "NumberOfNulls": number
        },
        "BooleanColumnStatisticsData": {
          "NumberOfFalses": number,
          "NumberOfNulls": number,
          "NumberOfTrues": number
        }
      }
    }
  ]
}
```



```

    "DateColumnStatisticsData": {
      "MaximumValue": number,
      "MinimumValue": number,
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "DecimalColumnStatisticsData": {
      "MaximumValue": {
        "Scale": number,
        "UnscaledValue": blob
      },
      "MinimumValue": {
        "Scale": number,
        "UnscaledValue": blob
      },
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "DoubleColumnStatisticsData": {
      "MaximumValue": number,
      "MinimumValue": number,
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "LongColumnStatisticsData": {
      "MaximumValue": number,
      "MinimumValue": number,
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "StringColumnStatisticsData": {
      "AverageLength": number,
      "MaximumLength": number,
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "Type": "string"
  }
},
"Errors": [
  {
    "ColumnName": "string",
    "Error": {

```

```
        "ErrorCode": "string",
        "ErrorMessage": "string"
    }
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ColumnStatisticsList

List of ColumnStatistics.

Type: Array of [ColumnStatistics](#) objects

### Errors

List of ColumnStatistics that failed to be retrieved.

Type: Array of [ColumnError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



```
"LastUpdated": number,  
"NumberOfWorkers": number,  
"Role": "string",  
"SampleSize": number,  
"SecurityConfiguration": "string",  
"StartTime": number,  
"Status": "string",  
"TableName": "string",  
"WorkerType": "string"  
}  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ColumnStatisticsTaskRun

A ColumnStatisticsTaskRun object representing the details of the column stats run.

Type: [ColumnStatisticsTaskRun](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetColumnStatisticsTaskRuns

Retrieves information about all runs associated with the specified table.

## Request Syntax

```
{  
  "DatabaseName": "string",  
  "MaxResults": number,  
  "NextToken": "string",  
  "TableName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DatabaseName

The name of the database where the table resides.

Type: String

Required: Yes

### MaxResults

The maximum size of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u0080-\u00FF\u0100-\u017F\u0180-\u01FF\u0200-\u02FF\u0300-\u037F\u0380-\u03FF\u0400-\u047F\u0480-\u04FF\u0500-\u057F\u0580-\u05FF\u0600-\u06FF\u0700-\u07FF\u0800-\u08FF\u0900-\u097F\u0980-\u09FF\u0A00-\u0A7F\u0A80-\u0AFF\u0B00-\u0B7F\u0B80-\u0BFF\u0C00-\u0C7F\u0C80-\u0CFF\u0D00-\u0D7F\u0D80-\u0DBF\u0DC0-\u0DBF\u0E00-\u0E7F\u0E80-\u0EFF\u0F00-\u0F7F\u0F80-\u0FFF\u1000-\u107F\u1080-\u10FF\u1100-\u117F\u1180-\u11FF\u1200-\u127F\u1280-\u12FF\u1300-\u137F\u1380-\u13FF\u1400-\u147F\u1480-\u14FF\u1500-\u157F\u1580-\u15FF\u1600-\u167F\u1680-\u16FF\u1700-\u177F\u1780-\u17FF\u1800-\u187F\u1880-\u18FF\u1900-\u197F\u1980-\u19FF\u1A00-\u1A7F\u1A80-\u1AFF\u1B00-\u1B7F\u1B80-\u1BFF\u1C00-\u1C7F\u1C80-\u1CFF\u1D00-\u1D7F\u1D80-\u1DBF\u1E00-\u1E7F\u1E80-\u1EFF\u1F00-\u1F7F\u1F80-\u1FFF\u2000-\u207F\u2080-\u20FF\u2100-\u217F\u2180-\u21FF\u2200-\u227F\u2280-\u22FF\u2300-\u237F\u2380-\u23FF\u2400-\u247F\u2480-\u24FF\u2500-\u257F\u2580-\u25FF\u2600-\u267F\u2680-\u26FF\u2700-\u277F\u2780-\u27FF\u2800-\u287F\u2880-\u28FF\u2900-\u297F\u2980-\u29FF\u2A00-\u2A7F\u2A80-\u2AFF\u2B00-\u2B7F\u2B80-\u2BFF\u2C00-\u2C7F\u2C80-\u2CFF\u2D00-\u2D7F\u2D80-\u2DBF\u2E00-\u2E7F\u2E80-\u2EFF\u2F00-\u2F7F\u2F80-\u2FFF\u3000-\u307F\u3080-\u30FF\u3100-\u317F\u3180-\u31FF\u3200-\u327F\u3280-\u32FF\u3300-\u337F\u3380-\u33FF\u3400-\u347F\u3480-\u34FF\u3500-\u357F\u3580-\u35FF\u3600-\u367F\u3680-\u36FF\u3700-\u377F\u3780-\u37FF\u3800-\u387F\u3880-\u38FF\u3900-\u397F\u3980-\u39FF\u3A00-\u3A7F\u3A80-\u3AFF\u3B00-\u3B7F\u3B80-\u3BFF\u3C00-\u3C7F\u3C80-\u3CFF\u3D00-\u3D7F\u3D80-\u3DBF\u3E00-\u3E7F\u3E80-\u3EFF\u3F00-\u3F7F\u3F80-\u3FFF\u4000-\u407F\u4080-\u40FF\u4100-\u417F\u4180-\u41FF\u4200-\u427F\u4280-\u42FF\u4300-\u437F\u4380-\u43FF\u4400-\u447F\u4480-\u44FF\u4500-\u457F\u4580-\u45FF\u4600-\u467F\u4680-\u46FF\u4700-\u477F\u4780-\u47FF\u4800-\u487F\u4880-\u48FF\u4900-\u497F\u4980-\u49FF\u4A00-\u4A7F\u4A80-\u4AFF\u4B00-\u4B7F\u4B80-\u4BFF\u4C00-\u4C7F\u4C80-\u4CFF\u4D00-\u4D7F\u4D80-\u4DBF\u4E00-\u4E7F\u4E80-\u4EFF\u4F00-\u4F7F\u4F80-\u4FFF\u5000-\u507F\u5080-\u50FF\u5100-\u517F\u5180-\u51FF\u5200-\u527F\u5280-\u52FF\u5300-\u537F\u5380-\u53FF\u5400-\u547F\u5480-\u54FF\u5500-\u557F\u5580-\u55FF\u5600-\u567F\u5680-\u56FF\u5700-\u577F\u5780-\u57FF\u5800-\u587F\u5880-\u58FF\u5900-\u597F\u5980-\u59FF\u5A00-\u5A7F\u5A80-\u5AFF\u5B00-\u5B7F\u5B80-\u5BFF\u5C00-\u5C7F\u5C80-\u5CFF\u5D00-\u5D7F\u5D80-\u5DBF\u5E00-\u5E7F\u5E80-\u5EFF\u5F00-\u5F7F\u5F80-\u5FFF\u6000-\u607F\u6080-\u60FF\u6100-\u617F\u6180-\u61FF\u6200-\u627F\u6280-\u62FF\u6300-\u637F\u6380-\u63FF\u6400-\u647F\u6480-\u64FF\u6500-\u657F\u6580-\u65FF\u6600-\u667F\u6680-\u66FF\u6700-\u677F\u6780-\u67FF\u6800-\u687F\u6880-\u68FF\u6900-\u697F\u6980-\u69FF\u6A00-\u6A7F\u6A80-\u6AFF\u6B00-\u6B7F\u6B80-\u6BFF\u6C00-\u6C7F\u6C80-\u6CFF\u6D00-\u6D7F\u6D80-\u6DBF\u6E00-\u6E7F\u6E80-\u6EFF\u6F00-\u6F7F\u6F80-\u6FFF\u7000-\u707F\u7080-\u70FF\u7100-\u717F\u7180-\u71FF\u7200-\u727F\u7280-\u72FF\u7300-\u737F\u7380-\u73FF\u7400-\u747F\u7480-\u74FF\u7500-\u757F\u7580-\u75FF\u7600-\u767F\u7680-\u76FF\u7700-\u777F\u7780-\u77FF\u7800-\u787F\u7880-\u78FF\u7900-\u797F\u7980-\u79FF\u7A00-\u7A7F\u7A80-\u7AFF\u7B00-\u7B7F\u7B80-\u7BFF\u7C00-\u7C7F\u7C80-\u7CFF\u7D00-\u7D7F\u7D80-\u7DBF\u7E00-\u7E7F\u7E80-\u7EFF\u7F00-\u7F7F\u7F80-\u7FFF\u8000-\u807F\u8080-\u80FF\u8100-\u817F\u8180-\u81FF\u8200-\u827F\u8280-\u82FF\u8300-\u837F\u8380-\u83FF\u8400-\u847F\u8480-\u84FF\u8500-\u857F\u8580-\u85FF\u8600-\u867F\u8680-\u86FF\u8700-\u877F\u8780-\u87FF\u8800-\u887F\u8880-\u88FF\u8900-\u897F\u8980-\u89FF\u8A00-\u8A7F\u8A80-\u8AFF\u8B00-\u8B7F\u8B80-\u8BFF\u8C00-\u8C7F\u8C80-\u8CFF\u8D00-\u8D7F\u8D80-\u8DBF\u8E00-\u8E7F\u8E80-\u8EFF\u8F00-\u8F7F\u8F80-\u8FFF\u9000-\u907F\u9080-\u90FF\u9100-\u917F\u9180-\u91FF\u9200-\u927F\u9280-\u92FF\u9300-\u937F\u9380-\u93FF\u9400-\u947F\u9480-\u94FF\u9500-\u957F\u9580-\u95FF\u9600-\u967F\u9680-\u96FF\u9700-\u977F\u9780-\u97FF\u9800-\u987F\u9880-\u98FF\u9900-\u997F\u9980-\u99FF\u9A00-\u9A7F\u9A80-\u9AFF\u9B00-\u9B7F\u9B80-\u9BFF\u9C00-\u9C7F\u9C80-\u9CFF\u9D00-\u9D7F\u9D80-\u9DBF\u9E00-\u9E7F\u9E80-\u9EFF\u9F00-\u9F7F\u9F80-\u9FFF\uA000-\uA07F\uA080-\uA0FF\uA100-\uA17F\uA180-\uA1FF\uA200-\uA27F\uA280-\uA2FF\uA300-\uA37F\uA380-\uA3FF\uA400-\uA47F\uA480-\uA4FF\uA500-\uA57F\uA580-\uA5FF\uA600-\uA67F\uA680-\uA6FF\uA700-\uA77F\uA780-\uA7FF\uA800-\uA87F\uA880-\uA8FF\uA900-\uA97F\uA980-\uA9FF\uAA00-\uAA7F\uAA80-\uAAFF\uAB00-\uAB7F\uAB80-\uABFF\uAC00-\uAC7F\uAC80-\uACFF\uAD00-\uAD7F\uAD80-\uADFF\uAE00-\uAE7F\uAE80-\uAEFF\uAF00-\uAF7F\uAF80-\uAFFF\uB000-\uB07F\uB080-\uB0FF\uB100-\uB17F\uB180-\uB1FF\uB200-\uB27F\uB280-\uB2FF\uB300-\uB37F\uB380-\uB3FF\uB400-\uB47F\uB480-\uB4FF\uB500-\uB57F\uB580-\uB5FF\uB600-\uB67F\uB680-\uB6FF\uB700-\uB77F\uB780-\uB7FF\uB800-\uB87F\uB880-\uB8FF\uB900-\uB97F\uB980-\uB9FF\uBA00-\uBA7F\uBA80-\uBAFF\uBB00-\uBB7F\uBB80-\uBBFF\uBC00-\uBC7F\uBC80-\uBCFF\uBD00-\uBD7F\uBD80-\uBDBF\uBE00-\uBE7F\uBE80-\uBEFF\uBF00-\uBF7F\uBF80-\uBFFF\uC000-\uC07F\uC080-\uC0FF\uC100-\uC17F\uC180-\uC1FF\uC200-\uC27F\uC280-\uC2FF\uC300-\uC37F\uC380-\uC3FF\uC400-\uC47F\uC480-\uC4FF\uC500-\uC57F\uC580-\uC5FF\uC600-\uC67F\uC680-\uC6FF\uC700-\uC77F\uC780-\uC7FF\uC800-\uC87F\uC880-\uC8FF\uC900-\uC97F\uC980-\uC9FF\uCA00-\uCA7F\uCA80-\uCAFF\uCB00-\uCB7F\uCB80-\uCBFF\uCC00-\uCC7F\uCC80-\uCCFF\uCD00-\uCD7F\uCD80-\uCDFF\uCE00-\uCE7F\uCE80-\uCEFF\uCF00-\uCF7F\uCF80-\uCFFF\uD000-\uD07F\uD080-\uD0FF\uD100-\uD17F\uD180-\uD1FF\uD200-\uD27F\uD280-\uD2FF\uD300-\uD37F\uD380-\uD3FF\uD400-\uD47F\uD480-\uD4FF\uD500-\uD57F\uD580-\uD5FF\uD600-\uD67F\uD680-\uD6FF\uD700-\uD77F\uD780-\uD7FF\uD800-\uD87F\uD880-\uD8FF\uD900-\uD97F\uD980-\uD9FF\uDA00-\uDA7F\uDA80-\uDAFF\uDB00-\uDB7F\uDB80-\uDBFF\uDC00-\uDC7F\uDC80-\uDCFF\uDD00-\uDD7F\uDD80-\uDDFF\uDE00-\uDE7F\uDE80-\uDEFF\uDF00-\uDF7F\uDF80-\uDFFF\uE000-\uE07F\uE080-\uE0FF\uE100-\uE17F\uE180-\uE1FF\uE200-\uE27F\uE280-\uE2FF\uE300-\uE37F\uE380-\uE3FF\uE400-\uE47F\uE480-\uE4FF\uE500-\uE57F\uE580-\uE5FF\uE600-\uE67F\uE680-\uE6FF\uE700-\uE77F\uE780-\uE7FF\uE800-\uE87F\uE880-\uE8FF\uE900-\uE97F\uE980-\uE9FF\uEA00-\uEA7F\uEA80-\uEAFF\uEB00-\uEB7F\uEB80-\uEBFF\uEC00-\uEC7F\uEC80-\uECFF\uED00-\uED7F\uED80-\uEDFF\uEE00-\uEE7F\uEE80-\uEEFF\uEF00-\uEF7F\uEF80-\uEFFF\uF000-\uF07F\uF080-\uF0FF\uF100-\uF17F\uF180-\uF1FF\uF200-\uF27F\uF280-\uF2FF\uF300-\uF37F\uF380-\uF3FF\uF400-\uF47F\uF480-\uF4FF\uF500-\uF57F\uF580-\uF5FF\uF600-\uF67F\uF680-\uF6FF\uF700-\uF77F\uF780-\uF7FF\uF800-\uF87F\uF880-\uF8FF\uF900-\uF97F\uF980-\uF9FF\uFA00-\uFA7F\uFA80-\uFAFF\uFB00-\uFB7F\uFB80-\uFBFF\uFC00-\uFC7F\uFC80-\uFCFF\uFD00-\uFD7F\uFD80-\uFDFF\uFE00-\uFE7F\uFE80-\uFEFF\uFF00-\uFF7F\uFF80-\uFFFF`\*

Required: Yes

## Response Syntax

```
{
  "ColumnStatisticsTaskRuns": [
    {
      "CatalogID": "string",
      "ColumnNameList": [ "string" ],
      "ColumnStatisticsTaskRunId": "string",
      "CreationTime": number,
      "CustomerId": "string",
      "DatabaseName": "string",
      "DPUSeconds": number,
      "EndTime": number,
      "ErrorMessage": "string",
      "LastUpdated": number,
      "NumberOfWorkers": number,
      "Role": "string",
      "SampleSize": number,
      "SecurityConfiguration": "string",
      "StartTime": number,
      "Status": "string",
      "TableName": "string",
      "WorkerType": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

### ColumnStatisticsTaskRuns

A list of column statistics task runs.

Type: Array of [ColumnStatisticsTaskRun](#) objects

### NextToken

A continuation token, if not all task runs have yet been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetConnection

Retrieves a connection definition from the Data Catalog.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "HidePassword": boolean,  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CatalogId](#)

The ID of the Data Catalog in which the connection resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### [HidePassword](#)

Allows you to retrieve the connection metadata without returning the password. For instance, the AWS Glue console uses this flag to retrieve the connection, and does not display the password. Set this parameter when the caller might not have permission to use the AWS KMS key to decrypt the password, but it does have permission to access the rest of the connection properties.

Type: Boolean

Required: No

## Name

The name of the connection definition to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Connection": {
    "ConnectionProperties": {
      "string" : "string"
    },
    "ConnectionType": "string",
    "CreationTime": number,
    "Description": "string",
    "LastUpdatedBy": "string",
    "LastUpdateTime": number,
    "MatchCriteria": [ "string" ],
    "Name": "string",
    "PhysicalConnectionRequirements": {
      "AvailabilityZone": "string",
      "SecurityGroupIdList": [ "string" ],
      "SubnetId": "string"
    }
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Connection

The requested connection definition.

Type: [Connection](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### GlueEncryptionException

An encryption operation failed.

HTTP Status Code: 400

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## HidePassword

Allows you to retrieve the connection metadata without returning the password. For instance, the AWS Glue console uses this flag to retrieve the connection, and does not display the password. Set this parameter when the caller might not have permission to use the AWS KMS key to decrypt the password, but it does have permission to access the rest of the connection properties.

Type: Boolean

Required: No

## MaxResults

The maximum number of connections to return in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "ConnectionList": [
    {
      "ConnectionProperties": {
        "string" : "string"
      },
      "ConnectionType": "string",
      "CreationTime": number,
      "Description": "string",
      "LastUpdatedBy": "string",
      "LastUpdatedTime": number,
    }
  ]
}
```



```
    "MatchCriteria": [ "string" ],
    "Name": "string",
    "PhysicalConnectionRequirements": {
      "AvailabilityZone": "string",
      "SecurityGroupIdList": [ "string" ],
      "SubnetId": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ConnectionList

A list of requested connection definitions.

Type: Array of [Connection](#) objects

### NextToken

A continuation token, if the list of connections returned does not include the last of the filtered connections.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



```
},
  "LastCrawl": {
    "ErrorMessage": "string",
    "LogGroup": "string",
    "LogStream": "string",
    "MessagePrefix": "string",
    "StartTime": number,
    "Status": "string"
  },
  "LastUpdated": number,
  "LineageConfiguration": {
    "CrawlerLineageSettings": "string"
  },
  "Name": "string",
  "RecrawlPolicy": {
    "RecrawlBehavior": "string"
  },
  "Role": "string",
  "Schedule": {
    "ScheduleExpression": "string",
    "State": "string"
  },
  "SchemaChangePolicy": {
    "DeleteBehavior": "string",
    "UpdateBehavior": "string"
  },
  "State": "string",
  "TablePrefix": "string",
  "Targets": {
    "CatalogTargets": [
      {
        "ConnectionName": "string",
        "DatabaseName": "string",
        "DlqEventQueueArn": "string",
        "EventQueueArn": "string",
        "Tables": [ "string" ]
      }
    ],
    "DeltaTargets": [
      {
        "ConnectionName": "string",
        "CreateNativeDeltaTable": boolean,
        "DeltaTables": [ "string" ],
        "WriteManifest": boolean
      }
    ]
  }
}
```

```
    }
  ],
  "DynamoDBTargets": [
    {
      "Path": "string",
      "scanAll": boolean,
      "scanRate": number
    }
  ],
  "HudiTargets": [
    {
      "ConnectionName": "string",
      "Exclusions": [ "string" ],
      "MaximumTraversalDepth": number,
      "Paths": [ "string" ]
    }
  ],
  "IcebergTargets": [
    {
      "ConnectionName": "string",
      "Exclusions": [ "string" ],
      "MaximumTraversalDepth": number,
      "Paths": [ "string" ]
    }
  ],
  "JdbcTargets": [
    {
      "ConnectionName": "string",
      "EnableAdditionalMetadata": [ "string" ],
      "Exclusions": [ "string" ],
      "Path": "string"
    }
  ],
  "MongoDBTargets": [
    {
      "ConnectionName": "string",
      "Path": "string",
      "ScanAll": boolean
    }
  ],
  "S3Targets": [
    {
      "ConnectionName": "string",
      "DlqEventQueueArn": "string",
```

```
        "EventQueueArn": "string",
        "Exclusions": [ "string" ],
        "Path": "string",
        "SampleSize": number
    }
]
},
"Version": number
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Crawler

The metadata for the specified crawler.

Type: [Crawler](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





## NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "CrawlerMetricsList": [
    {
      "CrawlerName": "string",
      "LastRuntimeSeconds": number,
      "MedianRuntimeSeconds": number,
      "StillEstimating": boolean,
      "TablesCreated": number,
      "TablesDeleted": number,
      "TablesUpdated": number,
      "TimeLeftSeconds": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CrawlerMetricsList

A list of metrics for the specified crawler.

Type: Array of [CrawlerMetrics](#) objects

### NextToken

A continuation token, if the returned list does not contain the last metric available.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetCrawlers

Retrieves metadata for all crawlers defined in the customer account.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The number of crawlers to return on each call.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation request.

Type: String

Required: No

## Response Syntax

```
{  
  "Crawlers": [  
    {  
      "Classifiers": [ "string" ],  
      "Configuration": "string",  
      "CrawlElapsedTime": number,  
    }  
  ]  
}
```

```
"CrawlerSecurityConfiguration": "string",
"CreationTime": number,
"DatabaseName": "string",
"Description": "string",
"LakeFormationConfiguration": {
  "AccountId": "string",
  "UseLakeFormationCredentials": boolean
},
>LastCrawl": {
  "ErrorMessage": "string",
  "LogGroup": "string",
  "LogStream": "string",
  "MessagePrefix": "string",
  "StartTime": number,
  "Status": "string"
},
>LastUpdated": number,
"LineageConfiguration": {
  "CrawlerLineageSettings": "string"
},
>Name": "string",
"RecrawlPolicy": {
  "RecrawlBehavior": "string"
},
>Role": "string",
>Schedule": {
  "ScheduleExpression": "string",
  "State": "string"
},
>SchemaChangePolicy": {
  "DeleteBehavior": "string",
  "UpdateBehavior": "string"
},
>State": "string",
>TablePrefix": "string",
>Targets": {
  "CatalogTargets": [
    {
      "ConnectionName": "string",
      "DatabaseName": "string",
      "DlqEventQueueArn": "string",
      "EventQueueArn": "string",
      "Tables": [ "string" ]
    }
  ]
}
```

```
],
  "DeltaTargets": [
    {
      "ConnectionName": "string",
      "CreateNativeDeltaTable": boolean,
      "DeltaTables": [ "string " ],
      "WriteManifest": boolean
    }
  ],
  "DynamoDBTargets": [
    {
      "Path": "string",
      "scanAll": boolean,
      "scanRate": number
    }
  ],
  "HudiTargets": [
    {
      "ConnectionName": "string",
      "Exclusions": [ "string " ],
      "MaximumTraversalDepth": number,
      "Paths": [ "string " ]
    }
  ],
  "IcebergTargets": [
    {
      "ConnectionName": "string",
      "Exclusions": [ "string " ],
      "MaximumTraversalDepth": number,
      "Paths": [ "string " ]
    }
  ],
  "JdbcTargets": [
    {
      "ConnectionName": "string",
      "EnableAdditionalMetadada": [ "string " ],
      "Exclusions": [ "string " ],
      "Path": "string"
    }
  ],
  "MongoDBTargets": [
    {
      "ConnectionName": "string",
      "Path": "string",
```

```
        "ScanAll": boolean
      }
    ],
    "S3Targets": [
      {
        "ConnectionName": "string",
        "DlqEventQueueArn": "string",
        "EventQueueArn": "string",
        "Exclusions": [ "string " ],
        "Path": "string",
        "SampleSize": number
      }
    ]
  },
  "Version": number
}
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Crawlers

A list of crawler metadata.

Type: Array of [Crawler](#) objects

### NextToken

A continuation token, if the returned list has not reached the end of those defined in this customer account.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetCustomEntityType

Retrieves the details of a custom pattern by specifying its name.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the custom pattern that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "ContextWords": [ "string" ],  
  "Name": "string",  
  "RegexString": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

### ContextWords

A list of context words if specified when you created the custom pattern. If none of these context words are found within the vicinity of the regular expression the data will not be detected as sensitive data.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### Name

The name of the custom pattern that you retrieved.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### RegexString

A regular expression string that is used for detecting sensitive data in a custom pattern.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDatabase

Retrieves the definition of a specified database.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which the database resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Name

The name of the database to retrieve. For Hive compatibility, this should be all lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Database": {
    "CatalogId": "string",
    "CreateTableDefaultPermissions": [
      {
        "Permissions": [ "string" ],
        "Principal": {
          "DataLakePrincipalIdentifier": "string"
        }
      }
    ],
    "CreateTime": number,
    "Description": "string",
    "FederatedDatabase": {
      "ConnectionName": "string",
      "Identifier": "string"
    },
    "LocationUri": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "TargetDatabase": {
      "CatalogId": "string",
      "DatabaseName": "string",
      "Region": "string"
    }
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Database

The definition of the specified database in the Data Catalog.

Type: [Database](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **FederationSourceException**

A federation source failed.

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDatabases

Retrieves all databases defined in a given Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "MaxResults": number,
  "NextToken": "string",
  "ResourceShareType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog from which to retrieve Databases. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u0100-\u017F\u0180-\u01FF\u0200-\u02FF\u0300-\u037F\u0380-\u03FF\u0400-\u047F\u0480-\u04FF\u0500-\u057F\u0580-\u05FF\u0600-\u06FF\u0700-\u07FF\u0800-\u08FF\u0900-\u097F\u0980-\u09FF\u0A00-\u0A7F\u0A80-\u0AFF\u0B00-\u0B7F\u0B80-\u0BFF\u0C00-\u0C7F\u0C80-\u0CFF\u0D00-\u0D7F\u0D80-\u0DFF\u0E00-\u0E7F\u0E80-\u0EFF\u0F00-\u0F7F\u0F80-\u0FFF\u1000-\u107F\u1080-\u10FF\u1100-\u117F\u1180-\u11FF\u1200-\u127F\u1280-\u12FF\u1300-\u137F\u1380-\u13FF\u1400-\u147F\u1480-\u14FF\u1500-\u157F\u1580-\u15FF\u1600-\u167F\u1680-\u16FF\u1700-\u177F\u1780-\u17FF\u1800-\u187F\u1880-\u18FF\u1900-\u197F\u1980-\u19FF\u1A00-\u1A7F\u1A80-\u1AFF\u1B00-\u1B7F\u1B80-\u1BFF\u1C00-\u1C7F\u1C80-\u1CFF\u1D00-\u1D7F\u1D80-\u1DBF\u1E00-\u1E7F\u1E80-\u1EFF\u1F00-\u1F7F\u1F80-\u1FFF\u2000-\u207F\u2080-\u20FF\u2100-\u217F\u2180-\u21FF\u2200-\u227F\u2280-\u22FF\u2300-\u237F\u2380-\u23FF\u2400-\u247F\u2480-\u24FF\u2500-\u257F\u2580-\u25FF\u2600-\u267F\u2680-\u26FF\u2700-\u277F\u2780-\u27FF\u2800-\u287F\u2880-\u28FF\u2900-\u297F\u2980-\u29FF\u2A00-\u2A7F\u2A80-\u2AFF\u2B00-\u2B7F\u2B80-\u2BFF\u2C00-\u2C7F\u2C80-\u2CFF\u2D00-\u2D7F\u2D80-\u2DBF\u2E00-\u2E7F\u2E80-\u2EFF\u2F00-\u2F7F\u2F80-\u2FFF\u3000-\u307F\u3080-\u30FF\u3100-\u317F\u3180-\u31FF\u3200-\u327F\u3280-\u32FF\u3300-\u337F\u3380-\u33FF\u3400-\u347F\u3480-\u34FF\u3500-\u357F\u3580-\u35FF\u3600-\u367F\u3680-\u36FF\u3700-\u377F\u3780-\u37FF\u3800-\u387F\u3880-\u38FF\u3900-\u397F\u3980-\u39FF\u3A00-\u3A7F\u3A80-\u3AFF\u3B00-\u3B7F\u3B80-\u3BFF\u3C00-\u3C7F\u3C80-\u3CFF\u3D00-\u3D7F\u3D80-\u3DBF\u3E00-\u3E7F\u3E80-\u3EFF\u3F00-\u3F7F\u3F80-\u3FFF\u4000-\u407F\u4080-\u40FF\u4100-\u417F\u4180-\u41FF\u4200-\u427F\u4280-\u42FF\u4300-\u437F\u4380-\u43FF\u4400-\u447F\u4480-\u44FF\u4500-\u457F\u4580-\u45FF\u4600-\u467F\u4680-\u46FF\u4700-\u477F\u4780-\u47FF\u4800-\u487F\u4880-\u48FF\u4900-\u497F\u4980-\u49FF\u4A00-\u4A7F\u4A80-\u4AFF\u4B00-\u4B7F\u4B80-\u4BFF\u4C00-\u4C7F\u4C80-\u4CFF\u4D00-\u4D7F\u4D80-\u4DBF\u4E00-\u4E7F\u4E80-\u4EFF\u4F00-\u4F7F\u4F80-\u4FFF\u5000-\u507F\u5080-\u50FF\u5100-\u517F\u5180-\u51FF\u5200-\u527F\u5280-\u52FF\u5300-\u537F\u5380-\u53FF\u5400-\u547F\u5480-\u54FF\u5500-\u557F\u5580-\u55FF\u5600-\u567F\u5680-\u56FF\u5700-\u577F\u5780-\u57FF\u5800-\u587F\u5880-\u58FF\u5900-\u597F\u5980-\u59FF\u5A00-\u5A7F\u5A80-\u5AFF\u5B00-\u5B7F\u5B80-\u5BFF\u5C00-\u5C7F\u5C80-\u5CFF\u5D00-\u5D7F\u5D80-\u5DBF\u5E00-\u5E7F\u5E80-\u5EFF\u5F00-\u5F7F\u5F80-\u5FFF\u6000-\u607F\u6080-\u60FF\u6100-\u617F\u6180-\u61FF\u6200-\u627F\u6280-\u62FF\u6300-\u637F\u6380-\u63FF\u6400-\u647F\u6480-\u64FF\u6500-\u657F\u6580-\u65FF\u6600-\u667F\u6680-\u66FF\u6700-\u677F\u6780-\u67FF\u6800-\u687F\u6880-\u68FF\u6900-\u697F\u6980-\u69FF\u6A00-\u6A7F\u6A80-\u6AFF\u6B00-\u6B7F\u6B80-\u6BFF\u6C00-\u6C7F\u6C80-\u6CFF\u6D00-\u6D7F\u6D80-\u6DBF\u6E00-\u6E7F\u6E80-\u6EFF\u6F00-\u6F7F\u6F80-\u6FFF\u7000-\u707F\u7080-\u70FF\u7100-\u717F\u7180-\u71FF\u7200-\u727F\u7280-\u72FF\u7300-\u737F\u7380-\u73FF\u7400-\u747F\u7480-\u74FF\u7500-\u757F\u7580-\u75FF\u7600-\u767F\u7680-\u76FF\u7700-\u777F\u7780-\u77FF\u7800-\u787F\u7880-\u78FF\u7900-\u797F\u7980-\u79FF\u7A00-\u7A7F\u7A80-\u7AFF\u7B00-\u7B7F\u7B80-\u7BFF\u7C00-\u7C7F\u7C80-\u7CFF\u7D00-\u7D7F\u7D80-\u7DBF\u7E00-\u7E7F\u7E80-\u7EFF\u7F00-\u7F7F\u7F80-\u7FFF\u8000-\u807F\u8080-\u80FF\u8100-\u817F\u8180-\u81FF\u8200-\u827F\u8280-\u82FF\u8300-\u837F\u8380-\u83FF\u8400-\u847F\u8480-\u84FF\u8500-\u857F\u8580-\u85FF\u8600-\u867F\u8680-\u86FF\u8700-\u877F\u8780-\u87FF\u8800-\u887F\u8880-\u88FF\u8900-\u897F\u8980-\u89FF\u8A00-\u8A7F\u8A80-\u8AFF\u8B00-\u8B7F\u8B80-\u8BFF\u8C00-\u8C7F\u8C80-\u8CFF\u8D00-\u8D7F\u8D80-\u8DBF\u8E00-\u8E7F\u8E80-\u8EFF\u8F00-\u8F7F\u8F80-\u8FFF\u9000-\u907F\u9080-\u90FF\u9100-\u917F\u9180-\u91FF\u9200-\u927F\u9280-\u92FF\u9300-\u937F\u9380-\u93FF\u9400-\u947F\u9480-\u94FF\u9500-\u957F\u9580-\u95FF\u9600-\u967F\u9680-\u96FF\u9700-\u977F\u9780-\u97FF\u9800-\u987F\u9880-\u98FF\u9900-\u997F\u9980-\u99FF\u9A00-\u9A7F\u9A80-\u9AFF\u9B00-\u9B7F\u9B80-\u9BFF\u9C00-\u9C7F\u9C80-\u9CFF\u9D00-\u9D7F\u9D80-\u9DBF\u9E00-\u9E7F\u9E80-\u9EFF\u9F00-\u9F7F\u9F80-\u9FFF\uA000-\uA07F\uA080-\uA0FF\uA100-\uA17F\uA180-\uA1FF\uA200-\uA27F\uA280-\uA2FF\uA300-\uA37F\uA380-\uA3FF\uA400-\uA47F\uA480-\uA4FF\uA500-\uA57F\uA580-\uA5FF\uA600-\uA67F\uA680-\uA6FF\uA700-\uA77F\uA780-\uA7FF\uA800-\uA87F\uA880-\uA8FF\uA900-\uA97F\uA980-\uA9FF\uAA00-\uAA7F\uAA80-\uAAFF\uAB00-\uAB7F\uAB80-\uABFF\uAC00-\uAC7F\uAC80-\uACFF\uAD00-\uAD7F\uAD80-\uADBF\uAE00-\uAE7F\uAE80-\uAEFF\uAF00-\uAF7F\uAF80-\uAFFF\uB000-\uB07F\uB080-\uB0FF\uB100-\uB17F\uB180-\uB1FF\uB200-\uB27F\uB280-\uB2FF\uB300-\uB37F\uB380-\uB3FF\uB400-\uB47F\uB480-\uB4FF\uB500-\uB57F\uB580-\uB5FF\uB600-\uB67F\uB680-\uB6FF\uB700-\uB77F\uB780-\uB7FF\uB800-\uB87F\uB880-\uB8FF\uB900-\uB97F\uB980-\uB9FF\uBA00-\uBA7F\uBA80-\uBAFF\uBB00-\uBB7F\uBB80-\uBBFF\uBC00-\uBC7F\uBC80-\uBCFF\uBD00-\uBD7F\uBD80-\uBDBF\uBE00-\uBE7F\uBE80-\uBEFF\uBF00-\uBF7F\uBF80-\uBFFF\uC000-\u0000\uC080-\u0000\uC0FF\uC100-\u0000\uC17F\uC180-\u0000\uC1FF\uC200-\u0000\uC27F\uC280-\u0000\uC2FF\uC300-\u0000\uC37F\uC380-\u0000\uC3FF\uC400-\u0000\uC47F\uC480-\u0000\uC4FF\uC500-\u0000\uC57F\uC580-\u0000\uC5FF\uC600-\u0000\uC67F\uC680-\u0000\uC6FF\uC700-\u0000\uC77F\uC780-\u0000\uC7FF\uC800-\u0000\uC87F\uC880-\u0000\uC8FF\uC900-\u0000\uC97F\uC980-\u0000\uC9FF\uCA00-\u0000\uCA7F\uCA80-\u0000\uCAFF\uCB00-\u0000\uCB7F\uCB80-\u0000\uCBFF\uCC00-\u0000\uCC7F\uCC80-\u0000\uCCFF\uCD00-\u0000\uCD7F\uCD80-\u0000\uCDBF\uCE00-\u0000\uCE7F\uCE80-\u0000\uCEFF\uCF00-\u0000\uCF7F\uCF80-\u0000\uCFFF\uD000-\u0000\uD07F\uD080-\u0000\uD0FF\uD100-\u0000\uD17F\uD180-\u0000\uD1FF\uD200-\u0000\uD27F\uD280-\u0000\uD2FF\uD300-\u0000\uD37F\uD380-\u0000\uD3FF\uD400-\u0000\uD47F\uD480-\u0000\uD4FF\uD500-\u0000\uD57F\uD580-\u0000\uD5FF\uD600-\u0000\uD67F\uD680-\u0000\uD6FF\uD700-\u0000\uD77F\uD780-\u0000\uD7FF\uD800-\u0000\uD87F\uD880-\u0000\uD8FF\uD900-\u0000\uD97F\uD980-\u0000\uD9FF\uDA00-\u0000\uDA7F\uDA80-\u0000\uDAFF\uDB00-\u0000\uDB7F\uDB80-\u0000\uDBFF\uDC00-\u0000\uDC7F\uDC80-\u0000\uDCFF\uDD00-\u0000\uDD7F\uDD80-\u0000\uDDFF\uDE00-\u0000\uDE7F\uDE80-\u0000\uDEFF\uDF00-\u0000\uDF7F\uDF80-\u0000\uDFFF\uE000-\u0000\uE07F\uE080-\u0000\uE0FF\uE100-\u0000\uE17F\uE180-\u0000\uE1FF\uE200-\u0000\uE27F\uE280-\u0000\uE2FF\uE300-\u0000\uE37F\uE380-\u0000\uE3FF\uE400-\u0000\uE47F\uE480-\u0000\uE4FF\uE500-\u0000\uE57F\uE580-\u0000\uE5FF\uE600-\u0000\uE67F\uE680-\u0000\uE6FF\uE700-\u0000\uE77F\uE780-\u0000\uE7FF\uE800-\u0000\uE87F\uE880-\u0000\uE8FF\uE900-\u0000\uE97F\uE980-\u0000\uE9FF\uEA00-\u0000\uEA7F\uEA80-\u0000\uEAFF\uEB00-\u0000\uEB7F\uEB80-\u0000\uEBFF\uEC00-\u0000\uEC7F\uEC80-\u0000\uECFF\uED00-\u0000\uED7F\uED80-\u0000\uEDFF\uEE00-\u0000\uEE7F\uEE80-\u0000\uEEFF\uEF00-\u0000\uEF7F\uEF80-\u0000\uEFFF\uF000-\u0000\uF07F\uF080-\u0000\uF0FF\uF100-\u0000\uF17F\uF180-\u0000\uF1FF\uF200-\u0000\uF27F\uF280-\u0000\uF2FF\uF300-\u0000\uF37F\uF380-\u0000\uF3FF\uF400-\u0000\uF47F\uF480-\u0000\uF4FF\uF500-\u0000\uF57F\uF580-\u0000\uF5FF\uF600-\u0000\uF67F\uF680-\u0000\uF6FF\uF700-\u0000\uF77F\uF780-\u0000\uF7FF\uF800-\u0000\uF87F\uF880-\u0000\uF8FF\uF900-\u0000\uF97F\uF980-\u0000\uF9FF\uFA00-\u0000\uFA7F\uFA80-\u0000\uFAFF\uFB00-\u0000\uFB7F\uFB80-\u0000\uFBFF\uFC00-\u0000\uFC7F\uFC80-\u0000\uFCFF\uFD00-\u0000\uFD7F\uFD80-\u0000\uFDFF\uFE00-\u0000\uFE7F\uFE80-\u0000\uFEFF\uFF00-\u0000\uFF7F\uFF80-\u0000\uFFFF`

Required: No

### MaxResults

The maximum number of databases to return in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## ResourceShareType

Allows you to specify that you want to list the databases shared with your account. The allowable values are FEDERATED, FOREIGN or ALL.

- If set to FEDERATED, will list the federated databases (referencing an external entity) shared with your account.
- If set to FOREIGN, will list the databases shared with your account.
- If set to ALL, will list the databases shared with your account, as well as the databases in your local account.

Type: String

Valid Values: FOREIGN | ALL | FEDERATED

Required: No

## Response Syntax

```
{
  "DatabaseList": [
    {
      "CatalogId": "string",
      "CreateTableDefaultPermissions": [
        {
          "Permissions": [ "string" ],
          "Principal": {
            "DataLakePrincipalIdentifier": "string"
          }
        }
      ],
      "CreateTime": number,
      "Description": "string",
      "FederatedDatabase": {
        "ConnectionName": "string",
```



```
    "Identifier": "string",
  },
  "LocationUri": "string",
  "Name": "string",
  "Parameters": {
    "string": "string"
  },
  "TargetDatabase": {
    "CatalogId": "string",
    "DatabaseName": "string",
    "Region": "string"
  }
},
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DatabaseList

A list of Database objects from the specified catalog.

Type: Array of [Database](#) objects

### NextToken

A continuation token for paginating the returned list of tokens, returned if the current segment of the list is not the last.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDataCatalogEncryptionSettings

Retrieves the security configuration for a specified catalog.

## Request Syntax

```
{  
  "CatalogId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog to retrieve the security configuration for. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{  
  "DataCatalogEncryptionSettings": {  
    "ConnectionPasswordEncryption": {  
      "AwsKmsKeyId": "string",  
      "ReturnConnectionPasswordEncrypted": boolean  
    },  
    "EncryptionAtRest": {  
      "CatalogEncryptionMode": "string",  
      "CatalogEncryptionServiceRole": "string",  
      "SseAwsKmsKeyId": "string"  
    }  
  }  
}
```

```
    }  
  }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DataCatalogEncryptionSettings

The requested security configuration.

Type: [DataCatalogEncryptionSettings](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDataflowGraph

Transforms a Python script into a directed acyclic graph (DAG).

## Request Syntax

```
{
  "PythonScript": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### PythonScript

The Python script to transform.

Type: String

Required: No

## Response Syntax

```
{
  "DagEdges": [
    {
      "Source": "string",
      "Target": "string",
      "TargetParameter": "string"
    }
  ],
  "DagNodes": [
    {
      "Args": [
        {
          "Name": "string",
          "Param": boolean,

```

```
        "Value": "string"
      }
    ],
    "Id": "string",
    "LineNumber": number,
    "NodeType": "string"
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DagEdges

A list of the edges in the resulting DAG.

Type: Array of [CodeGenEdge](#) objects

### DagNodes

A list of the nodes in the resulting DAG.

Type: Array of [CodeGenNode](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





```
"DataSource": {
  "GlueTable": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "CatalogId": "string",
    "ConnectionName": "string",
    "DatabaseName": "string",
    "TableName": "string"
  }
},
"EvaluationContext": "string",
"JobName": "string",
"JobRunId": "string",
"Observations": [
  {
    "Description": "string",
    "MetricBasedObservation": {
      "MetricName": "string",
      "MetricValues": {
        "ActualValue": number,
        "ExpectedValue": number,
        "LowerLimit": number,
        "UpperLimit": number
      },
      "NewRules": [ "string" ]
    }
  }
],
"ResultId": "string",
"RuleResults": [
  {
    "Description": "string",
    "EvaluatedMetrics": {
      "string" : number
    },
    "EvaluationMessage": "string",
    "Name": "string",
    "Result": "string"
  }
],
"RulesetEvaluationRunId": "string",
"RulesetName": "string",
"Score": number,
```

```
"StartedOn": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AnalyzerResults

A list of `DataQualityAnalyzerResult` objects representing the results for each analyzer.

Type: Array of [DataQualityAnalyzerResult](#) objects

Array Members: Minimum number of 0 items. Maximum number of 2000 items.

### CompletedOn

The date and time when the run for this data quality result was completed.

Type: Timestamp

### DataSource

The table associated with the data quality result, if any.

Type: [DataSource](#) object

### EvaluationContext

In the context of a job in AWS Glue Studio, each node in the canvas is typically assigned some sort of name and data quality nodes will have names. In the case of multiple nodes, the `evaluationContext` can differentiate the nodes.

Type: String

### JobName

The job name associated with the data quality result, if any.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## JobRunId

The job run ID associated with the data quality result, if any.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Observations

A list of `DataQualityObservation` objects representing the observations generated after evaluating the rules and analyzers.

Type: Array of [DataQualityObservation](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## ResultId

A unique result ID for the data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## RuleResults

A list of `DataQualityRuleResult` objects representing the results for each rule.

Type: Array of [DataQualityRuleResult](#) objects

Array Members: Minimum number of 0 items. Maximum number of 2000 items.

## RulesetEvaluationRunId

The unique run ID associated with the ruleset evaluation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## RulesetName

The name of the ruleset associated with the data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Score

An aggregate data quality score. Represents the ratio of rules that passed to the total number of rules.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

## StartedOn

The date and time when the run for this data quality result started.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)







Type: String

### ExecutionTime

The amount of time (in seconds) that the run consumed resources.

Type: Integer

### LastModifiedOn

A timestamp. The last point in time when this data quality rule recommendation run was modified.

Type: Timestamp

### NumberOfWorkers

The number of G.1X workers to be used in the run. The default is 5.

Type: Integer

### RecommendedRuleset

When a start rule recommendation run completes, it creates a recommended ruleset (a set of rules). This member has those rules in Data Quality Definition Language (DQDL) format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

### Role

An IAM role supplied to encrypt the results of the run.

Type: String

### RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### StartedOn

The date and time when this run started.

Type: Timestamp

### Status

The status for this run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

### Timeout

The timeout for a run in minutes. This is the maximum time that a run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



```
}  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedOn

A timestamp. The time and date that this data quality ruleset was created.

Type: Timestamp

### Description

A description of the ruleset.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\i\n\t]*`

### LastModifiedOn

A timestamp. The last point in time when this data quality ruleset was modified.

Type: Timestamp

### Name

The name of the ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### RecommendationRunId

When a ruleset was created from a recommendation run, this run ID is generated to link the two together.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### Ruleset

A Data Quality Definition Language (DQDL) ruleset. For more information, see the AWS Glue developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

### TargetTable

The name and database name of the target table.

Type: [DataQualityTargetTable](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDataQualityRulesetEvaluationRun

Retrieves a specific run where a ruleset is evaluated against a data source.

## Request Syntax

```
{  
  "RunId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "AdditionalDataSources": {  
    "string" : {  
      "GlueTable": {  
        "AdditionalOptions": {  
          "string" : "string"  
        },  
        "CatalogId": "string",  
        "ConnectionName": "string",  
        "DatabaseName": "string",  
        "TableName": "string"  
      }  
    }  
  }  
}
```



```

    }
  }
},
"AdditionalRunOptions": {
  "CloudWatchMetricsEnabled": boolean,
  "ResultsS3Prefix": "string"
},
"CompletedOn": number,
"DataSource": {
  "GlueTable": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "CatalogId": "string",
    "ConnectionName": "string",
    "DatabaseName": "string",
    "TableName": "string"
  }
},
"ErrorString": "string",
"ExecutionTime": number,
"LastModifiedOn": number,
"NumberOfWorkers": number,
"ResultIds": [ "string" ],
"Role": "string",
"RulesetNames": [ "string" ],
"RunId": "string",
"StartedOn": number,
"Status": "string",
"Timeout": number
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AdditionalDataSources

A map of reference strings to additional data sources you can specify for an evaluation run.

Type: String to [DataSource](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### AdditionalRunOptions

Additional run options you can specify for an evaluation run.

Type: [DataQualityEvaluationRunAdditionalRunOptions](#) object

### CompletedOn

The date and time when this run was completed.

Type: Timestamp

### DataSource

The data source (an AWS Glue table) associated with this evaluation run.

Type: [DataSource](#) object

### ErrorString

The error strings that are associated with the run.

Type: String

### ExecutionTime

The amount of time (in seconds) that the run consumed resources.

Type: Integer

### LastModifiedOn

A timestamp. The last point in time when this data quality rule recommendation run was modified.

Type: Timestamp

### NumberOfWorkers

The number of G.1X workers to be used in the run. The default is 5.

Type: Integer

## ResultIds

A list of result IDs for the data quality results for the run.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Role

An IAM role supplied to encrypt the results of the run.

Type: String

## RulesetNames

A list of ruleset names for the run.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## StartedOn

The date and time when this run started.

Type: Timestamp

## Status

The status for this run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

## Timeout

The timeout for a run in minutes. This is the maximum time that a run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDevEndpoint

Retrieves information about a specified development endpoint.

## Note

When you create a development endpoint in a virtual private cloud (VPC), AWS Glue returns only a private IP address, and the public IP address field is not populated. When you create a non-VPC development endpoint, AWS Glue returns only a public IP address.

## Request Syntax

```
{  
  "EndpointName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointName

Name of the DevEndpoint to retrieve information for.

Type: String

Required: Yes

## Response Syntax

```
{  
  "DevEndpoint": {  
    "Arguments": {  
      "string" : "string"  
    },  
  },  
}
```

```
"AvailabilityZone": "string",
"CreatedTimestamp": number,
"EndpointName": "string",
"ExtraJarsS3Path": "string",
"ExtraPythonLibsS3Path": "string",
"FailureReason": "string",
"GlueVersion": "string",
"LastModifiedTimestamp": number,
"LastUpdateStatus": "string",
"NumberOfNodes": number,
"NumberOfWorkers": number,
"PrivateAddress": "string",
"PublicAddress": "string",
"PublicKey": "string",
"PublicKeys": [ "string" ],
"RoleArn": "string",
"SecurityConfiguration": "string",
"SecurityGroupIds": [ "string" ],
>Status": "string",
"SubnetId": "string",
"VpcId": "string",
"WorkerType": "string",
"YarnEndpointAddress": "string",
"ZeppelinRemoteSparkInterpreterPort": number
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DevEndpoint

A DevEndpoint definition.

Type: [DevEndpoint](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetDevEndpoints

Retrieves all the development endpoints in this AWS account.

## Note

When you create a development endpoint in a virtual private cloud (VPC), AWS Glue returns only a private IP address and the public IP address field is not populated. When you create a non-VPC development endpoint, AWS Glue returns only a public IP address.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum size of information to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "DevEndpoints": [
    {
      "Arguments": {
        "string": "string"
      },
      "AvailabilityZone": "string",
      "CreatedTimestamp": number,
      "EndpointName": "string",
      "ExtraJarsS3Path": "string",
      "ExtraPythonLibsS3Path": "string",
      "FailureReason": "string",
      "GlueVersion": "string",
      "LastModifiedTimestamp": number,
      "LastUpdateStatus": "string",
      "NumberOfNodes": number,
      "NumberOfWorkers": number,
      "PrivateAddress": "string",
      "PublicAddress": "string",
      "PublicKey": "string",
      "PublicKeys": [ "string" ],
      "RoleArn": "string",
      "SecurityConfiguration": "string",
      "SecurityGroupIds": [ "string" ],
      "Status": "string",
      "SubnetId": "string",
      "VpcId": "string",
      "WorkerType": "string",
      "YarnEndpointAddress": "string",
      "ZeppelinRemoteSparkInterpreterPort": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## DevEndpoints

A list of DevEndpoint definitions.

Type: Array of [DevEndpoint](#) objects

## NextToken

A continuation token, if not all DevEndpoint definitions have yet been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetJob

Retrieves an existing job definition.

## Request Syntax

```
{
  "JobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job definition to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Job": {
    "AllocatedCapacity": number,
    "CodeGenConfigurationNodes": {
      "string" : {
        "Aggregate": {
          "Aggs": [
            {
              "AggFunc": "string",
              "Column": [ "string" ]
            }
          ]
        }
      }
    ],
  },
}
```

```
"Groups": [
  [ "string" ]
],
"Inputs": [ "string" ],
"Name": "string"
},
"AmazonRedshiftSource": {
  "Data": {
    "AccessType": "string",
    "Action": "string",
    "AdvancedOptions": [
      {
        "Key": "string",
        "Value": "string"
      }
    ],
  },
  "CatalogDatabase": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "CatalogRedshiftSchema": "string",
  "CatalogRedshiftTable": "string",
  "CatalogTable": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "Connection": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "CrawlerConnection": "string",
  "IamRole": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "MergeAction": "string",
  "MergeClause": "string",
  "MergeWhenMatched": "string",
  "MergeWhenNotMatched": "string",
  "PostAction": "string",
```

```
"PreAction": "string",
"SampleQuery": "string",
"Schema": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"SelectedColumns": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"SourceType": "string",
"StagingTable": "string",
"Table": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"TablePrefix": "string",
"TableSchema": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"TempDir": "string",
"Upsert": boolean
},
"Name": "string"
},
"AmazonRedshiftTarget": {
  "Data": {
    "AccessType": "string",
    "Action": "string",
    "AdvancedOptions": [
      {
        "Key": "string",
        "Value": "string"
      }
    ]
  }
],
```

```
"CatalogDatabase": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"CatalogRedshiftSchema": "string",
"CatalogRedshiftTable": "string",
"CatalogTable": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"Connection": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"CrawlerConnection": "string",
"IamRole": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"MergeAction": "string",
"MergeClause": "string",
"MergeWhenMatched": "string",
"MergeWhenNotMatched": "string",
"PostAction": "string",
"PreAction": "string",
"SampleQuery": "string",
"Schema": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"SelectedColumns": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"SourceType": "string",
"StagingTable": "string",
```



```
    "Table": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "TablePrefix": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Inputs": [ "string" ],
  "Name": "string"
},
"ApplyMapping": {
  "Inputs": [ "string" ],
  "Mapping": [
    {
      "Children": [
        "Mapping"
      ],
      "Dropped": boolean,
      "FromPath": [ "string" ],
      "FromType": "string",
      "ToKey": "string",
      "ToType": "string"
    }
  ],
  "Name": "string"
},
"AthenaConnectorSource": {
  "ConnectionName": "string",
  "ConnectionTable": "string",
  "ConnectionType": "string",
  "ConnectorName": "string",
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
```

```
        {
            "Name": "string",
            "Type": "string"
        }
    ]
}
],
"SchemaName": "string"
},
"CatalogDeltaSource": {
    "AdditionalDeltaOptions": {
        "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ],
    "Table": "string"
},
"CatalogHudiSource": {
    "AdditionalHudiOptions": {
        "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ],
    "Table": "string"
}
```

```
},
  "CatalogKafkaSource": {
    "Database": "string",
    "DataPreviewOptions": {
      "PollingTime": number,
      "RecordPollingLimit": number
    },
    "DetectSchema": boolean,
    "Name": "string",
    "StreamingOptions": {
      "AddRecordTimestamp": "string",
      "Assign": "string",
      "BootstrapServers": "string",
      "Classification": "string",
      "ConnectionName": "string",
      "Delimiter": "string",
      "EmitConsumerLagMetrics": "string",
      "EndingOffsets": "string",
      "IncludeHeaders": boolean,
      "MaxOffsetsPerTrigger": number,
      "MinPartitions": number,
      "NumRetries": number,
      "PollTimeoutMs": number,
      "RetryIntervalMs": number,
      "SecurityProtocol": "string",
      "StartingOffsets": "string",
      "StartingTimestamp": "string",
      "SubscribePattern": "string",
      "TopicName": "string"
    },
    "Table": "string",
    "WindowSize": number
  },
  "CatalogKinesisSource": {
    "Database": "string",
    "DataPreviewOptions": {
      "PollingTime": number,
      "RecordPollingLimit": number
    },
    "DetectSchema": boolean,
    "Name": "string",
    "StreamingOptions": {
      "AddIdleTimeBetweenReads": boolean,
      "AddRecordTimestamp": "string",
```

```

        "AvoidEmptyBatches": boolean,
        "Classification": "string",
        "Delimiter": "string",
        "DescribeShardInterval": number,
        "EmitConsumerLagMetrics": "string",
        "EndpointUrl": "string",
        "IdleTimeBetweenReadsInMs": number,
        "MaxFetchRecordsPerShard": number,
        "MaxFetchTimeInMs": number,
        "MaxRecordPerRead": number,
        "MaxRetryIntervalMs": number,
        "NumRetries": number,
        "RetryIntervalMs": number,
        "RoleArn": "string",
        "RoleSessionName": "string",
        "StartingPosition": "string",
        "StartingTimestamp": "string",
        "StreamArn": "string",
        "StreamName": "string"
    },
    "Table": "string",
    "WindowSize": number
},
"CatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
},
"CatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
},
"ConnectorDataSource": {
    "ConnectionType": "string",
    "Data": {
        "string" : "string"
    },
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {

```

```

        "Name": "string",
        "Type": "string"
      }
    ]
  }
]
},
"ConnectorDataTarget": {
  "ConnectionType": "string",
  "Data": {
    "string" : "string"
  },
  "Inputs": [ "string" ],
  "Name": "string"
},
"CustomCode": {
  "ClassName": "string",
  "Code": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
},
"DirectJDBCSource": {
  "ConnectionName": "string",
  "ConnectionType": "string",
  "Database": "string",
  "Name": "string",
  "RedshiftTmpDir": "string",
  "Table": "string"
},
"DirectKafkaSource": {
  "DataPreviewOptions": {
    "PollingTime": number,
    "RecordPollingLimit": number
  }
},

```

```

    "DetectSchema": boolean,
    "Name": "string",
    "StreamingOptions": {
      "AddRecordTimestamp": "string",
      "Assign": "string",
      "BootstrapServers": "string",
      "Classification": "string",
      "ConnectionName": "string",
      "Delimiter": "string",
      "EmitConsumerLagMetrics": "string",
      "EndingOffsets": "string",
      "IncludeHeaders": boolean,
      "MaxOffsetsPerTrigger": number,
      "MinPartitions": number,
      "NumRetries": number,
      "PollTimeoutMs": number,
      "RetryIntervalMs": number,
      "SecurityProtocol": "string",
      "StartingOffsets": "string",
      "StartingTimestamp": "string",
      "SubscribePattern": "string",
      "TopicName": "string"
    },
    "WindowSize": number
  },
  "DirectKinesisSource": {
    "DataPreviewOptions": {
      "PollingTime": number,
      "RecordPollingLimit": number
    },
    "DetectSchema": boolean,
    "Name": "string",
    "StreamingOptions": {
      "AddIdleTimeBetweenReads": boolean,
      "AddRecordTimestamp": "string",
      "AvoidEmptyBatches": boolean,
      "Classification": "string",
      "Delimiter": "string",
      "DescribeShardInterval": number,
      "EmitConsumerLagMetrics": "string",
      "EndpointUrl": "string",
      "IdleTimeBetweenReadsInMs": number,
      "MaxFetchRecordsPerShard": number,
      "MaxFetchTimeInMs": number,

```

```
        "MaxRecordPerRead": number,
        "MaxRetryIntervalMs": number,
        "NumRetries": number,
        "RetryIntervalMs": number,
        "RoleArn": "string",
        "RoleSessionName": "string",
        "StartingPosition": "string",
        "StartingTimestamp": "string",
        "StreamArn": "string",
        "StreamName": "string"
    },
    "WindowSize": number
},
"DropDuplicates": {
    "Columns": [
        [ "string" ]
    ],
    "Inputs": [ "string" ],
    "Name": "string"
},
"DropFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Paths": [
        [ "string" ]
    ]
},
"DropNullFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "NullCheckBoxList": {
        "IsEmpty": boolean,
        "IsNegOne": boolean,
        "IsNullString": boolean
    },
    "NullTextList": [
        {
            "Datatype": {
                "Id": "string",
                "Label": "string"
            },
            "Value": "string"
        }
    ]
}
```

```
},
  "DynamicTransform": {
    "FunctionName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  },
  "Parameters": [
    {
      "IsOptional": boolean,
      "ListType": "string",
      "Name": "string",
      "Type": "string",
      "ValidationMessage": "string",
      "ValidationRule": "string",
      "Value": [ "string" ]
    }
  ],
  "Path": "string",
  "TransformName": "string",
  "Version": "string"
},
  "DynamoDBCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "EvaluateDataQuality": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Output": "string",
    "PublishingOptions": {
      "CloudWatchMetricsEnabled": boolean,
      "EvaluationContext": "string",
      "ResultsPublishingEnabled": boolean,
      "ResultsS3Prefix": "string"
    }
  }
}
```



```
    },
    "Ruleset": "string",
    "StopJobOnFailureOptions": {
      "StopJobOnFailureTiming": "string"
    }
  },
  "EvaluateDataQualityMultiFrame": {
    "AdditionalDataSources": {
      "string" : "string"
    },
    "AdditionalOptions": {
      "string" : "string"
    },
    "Inputs": [ "string" ],
    "Name": "string",
    "PublishingOptions": {
      "CloudWatchMetricsEnabled": boolean,
      "EvaluationContext": "string",
      "ResultsPublishingEnabled": boolean,
      "ResultsS3Prefix": "string"
    },
    "Ruleset": "string",
    "StopJobOnFailureOptions": {
      "StopJobOnFailureTiming": "string"
    }
  },
  "FillMissingValues": {
    "FilledPath": "string",
    "ImputedPath": "string",
    "Inputs": [ "string" ],
    "Name": "string"
  },
  "Filter": {
    "Filters": [
      {
        "Negated": boolean,
        "Operation": "string",
        "Values": [
          {
            "Type": "string",
            "Value": [ "string" ]
          }
        ]
      }
    ]
  }
}
```

```
    ],
    "Inputs": [ "string" ],
    "LogicalOperator": "string",
    "Name": "string"
  },
  "GovernedCatalogSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number
    },
    "Database": "string",
    "Name": "string",
    "PartitionPredicate": "string",
    "Table": "string"
  },
  "GovernedCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "SchemaChangePolicy": {
      "EnableUpdateCatalog": boolean,
      "UpdateBehavior": "string"
    },
    "Table": "string"
  },
  "JDBCConnectorSource": {
    "AdditionalOptions": {
      "DataTypeMapping": {
        "string" : "string"
      },
      "FilterPredicate": "string",
      "JobBookmarkKeys": [ "string" ],
      "JobBookmarkKeysSortOrder": "string",
      "LowerBound": number,
      "NumPartitions": number,
      "PartitionColumn": "string",
      "UpperBound": number
    },
    "ConnectionName": "string",
    "ConnectionTable": "string",
    "ConnectionType": "string",
```

```
    "ConnectorName": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Query": "string"
  },
  "JDBCConnectorTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "ConnectionName": "string",
    "ConnectionTable": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  },
  "Join": {
    "Columns": [
      {
        "From": "string",
        "Keys": [
          [ "string" ]
        ]
      }
    ]
  }
],
```

```
    "Inputs": [ "string" ],
    "JoinType": "string",
    "Name": "string"
  },
  "Merge": {
    "Inputs": [ "string" ],
    "Name": "string",
    "PrimaryKeys": [
      [ "string" ]
    ],
    "Source": "string"
  },
  "MicrosoftSQLServerCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "MicrosoftSQLServerCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
  },
  "MySQLCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "MySQLCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
  },
  "OracleSQLCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "OracleSQLCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
  }
}
```

```
  },
  "PIIDetection": {
    "EntityTypesToDetect": [ "string" ],
    "Inputs": [ "string" ],
    "MaskValue": "string",
    "Name": "string",
    "OutputColumnName": "string",
    "PiiType": "string",
    "SampleFraction": number,
    "ThresholdFraction": number
  },
  "PostgreSQLCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "PostgreSQLCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
  },
  "Recipe": {
    "Inputs": [ "string" ],
    "Name": "string",
    "RecipeReference": {
      "RecipeArn": "string",
      "RecipeVersion": "string"
    }
  },
  "RedshiftSource": {
    "Database": "string",
    "Name": "string",
    "RedshiftTmpDir": "string",
    "Table": "string",
    "TmpDirIAMRole": "string"
  },
  "RedshiftTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "RedshiftTmpDir": "string",
    "Table": "string",
    "TmpDirIAMRole": "string",
```

```
    "UpsertRedshiftOptions": {
      "ConnectionName": "string",
      "TableLocation": "string",
      "UpsertKeys": [ "string" ]
    }
  },
  "RelationalCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "RenameField": {
    "Inputs": [ "string" ],
    "Name": "string",
    "SourcePath": [ "string" ],
    "TargetPath": [ "string" ]
  },
  "S3CatalogDeltaSource": {
    "AdditionalDeltaOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Table": "string"
  },
  "S3CatalogHudiSource": {
    "AdditionalHudiOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
```

```

        {
            "Name": "string",
            "Type": "string"
        }
    ]
}
],
"Table": "string"
},
"S3CatalogSource": {
    "AdditionalOptions": {
        "BoundedFiles": number,
        "BoundedSize": number
    },
    "Database": "string",
    "Name": "string",
    "PartitionPredicate": "string",
    "Table": "string"
},
"S3CatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
        [ "string" ]
    ],
    "SchemaChangePolicy": {
        "EnableUpdateCatalog": boolean,
        "UpdateBehavior": "string"
    },
    "Table": "string"
},
"S3CsvSource": {
    "AdditionalOptions": {
        "BoundedFiles": number,
        "BoundedSize": number,
        "EnableSamplePath": boolean,
        "SamplePath": "string"
    },
    "CompressionType": "string",
    "Escaper": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",

```

```

    "MaxBand": number,
    "MaxFilesInBand": number,
    "Multiline": boolean,
    "Name": "string",
    "OptimizePerformance": boolean,
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ],
    "QuoteChar": "string",
    "Recurse": boolean,
    "Separator": "string",
    "SkipFirst": boolean,
    "WithHeader": boolean,
    "WriteHeader": boolean
  },
  "S3DeltaCatalogTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "SchemaChangePolicy": {
      "EnableUpdateCatalog": boolean,
      "UpdateBehavior": "string"
    },
    "Table": "string"
  },
  "S3DeltaDirectTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "Compression": "string",

```



```

    "Format": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3DeltaSource": {
    "AdditionalDeltaOptions": {
      "string" : "string"
    },
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ]
  },
  "S3DirectTarget": {
    "Compression": "string",
    "Format": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ]
  }
}

```

```

    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3GlueParquetTarget": {
    "Compression": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3HudiCatalogTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "SchemaChangePolicy": {
      "EnableUpdateCatalog": boolean,
      "UpdateBehavior": "string"
    },
    "Table": "string"
  },
  "S3HudiDirectTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },

```

```
"Compression": "string",
"Format": "string",
"Inputs": [ "string" ],
"Name": "string",
"PartitionKeys": [
  [ "string" ]
],
"Path": "string",
"SchemaChangePolicy": {
  "Database": "string",
  "EnableUpdateCatalog": boolean,
  "Table": "string",
  "UpdateBehavior": "string"
}
},
"S3HudiSource": {
  "AdditionalHudiOptions": {
    "string" : "string"
  },
  "AdditionalOptions": {
    "BoundedFiles": number,
    "BoundedSize": number,
    "EnableSamplePath": boolean,
    "SamplePath": "string"
  },
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ],
  "Paths": [ "string" ]
},
"S3JsonSource": {
  "AdditionalOptions": {
    "BoundedFiles": number,
    "BoundedSize": number,
    "EnableSamplePath": boolean,
    "SamplePath": "string"
  }
}
```

```
    },
    "CompressionType": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "JsonPath": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Multiline": boolean,
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ],
    "Recurse": boolean
  },
  "S3ParquetSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "CompressionType": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  }
}
```

```

    ]
  }
],
"Paths": [ "string" ],
"Recurse": boolean
},
"SelectFields": {
  "Inputs": [ "string" ],
  "Name": "string",
  "Paths": [
    [ "string" ]
  ]
},
"SelectFromCollection": {
  "Index": number,
  "Inputs": [ "string" ],
  "Name": "string"
},
"SnowflakeSource": {
  "Data": {
    "Action": "string",
    "AdditionalOptions": {
      "string" : "string"
    },
    "AutoPushdown": boolean,
    "Connection": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "Database": "string",
    "IamRole": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "MergeAction": "string",
    "MergeClause": "string",
    "MergeWhenMatched": "string",
    "MergeWhenNotMatched": "string",
    "PostAction": "string",
    "PreAction": "string",
    "SampleQuery": "string",
    "Schema": "string",

```

```
    "SelectedColumns": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "SourceType": "string",
    "StagingTable": "string",
    "Table": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
},
"SnowflakeTarget": {
  "Data": {
    "Action": "string",
    "AdditionalOptions": {
      "string" : "string"
    },
    "AutoPushdown": boolean,
    "Connection": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    }
  },
}
```

```
    "Database": "string",
    "IamRole": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "MergeAction": "string",
    "MergeClause": "string",
    "MergeWhenMatched": "string",
    "MergeWhenNotMatched": "string",
    "PostAction": "string",
    "PreAction": "string",
    "SampleQuery": "string",
    "Schema": "string",
    "SelectedColumns": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "SourceType": "string",
    "StagingTable": "string",
    "Table": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Inputs": [ "string" ],
  "Name": "string"
},
"SparkConnectorSource": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "ConnectionName": "string",
  "ConnectionType": "string",
  "ConnectorName": "string",
```

```
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
  },
  "SparkConnectorTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "ConnectionName": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  },
  "SparkSQL": {
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ]
  }
}
```



```
    ],
    "SqlAliases": [
      {
        "Alias": "string",
        "From": "string"
      }
    ],
    "SqlQuery": "string"
  },
  "Spigot": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Path": "string",
    "Prob": number,
    "Topk": number
  },
  "SplitFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Paths": [
      [ "string" ]
    ]
  },
  "Union": {
    "Inputs": [ "string" ],
    "Name": "string",
    "UnionType": "string"
  }
}
},
"Command": {
  "Name": "string",
  "PythonVersion": "string",
  "Runtime": "string",
  "ScriptLocation": "string"
},
"Connections": {
  "Connections": [ "string" ]
},
"CreatedOn": number,
"DefaultArguments": {
  "string": "string"
},
"Description": "string",
```

```
"ExecutionClass": "string",
"ExecutionProperty": {
  "MaxConcurrentRuns": number
},
"GlueVersion": "string",
"LastModifiedOn": number,
"LogUri": "string",
"MaxCapacity": number,
"MaxRetries": number,
"Name": "string",
"NonOverridableArguments": {
  "string" : "string"
},
"NotificationProperty": {
  "NotifyDelayAfter": number
},
"NumberOfWorkers": number,
"Role": "string",
"SecurityConfiguration": "string",
"SourceControlDetails": {
  "AuthStrategy": "string",
  "AuthToken": "string",
  "Branch": "string",
  "Folder": "string",
  "LastCommitId": "string",
  "Owner": "string",
  "Provider": "string",
  "Repository": "string"
},
"Timeout": number,
"WorkerType": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Job

The requested job definition.

Type: [Job](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetJobBookmark

Returns information on a job bookmark entry.

For more information about enabling and using job bookmarks, see:

- [Tracking processed data using job bookmarks](#)
- [Job parameters used by AWS Glue](#)
- [Job structure](#)

## Request Syntax

```
{
  "JobName": "string",
  "RunId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [JobName](#)

The name of the job in question.

Type: String

Required: Yes

### [RunId](#)

The unique run identifier associated with this job run.

Type: String

Required: No

## Response Syntax

```
{
  "JobBookmarkEntry": {
    "Attempt": number,
    "JobBookmark": "string",
    "JobName": "string",
    "PreviousRunId": "string",
    "Run": number,
    "RunId": "string",
    "Version": number
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobBookmarkEntry

A structure that defines a point that a job can resume processing.

Type: [JobBookmarkEntry](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ValidationException

A value could not be validated.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "JobRun": {
    "AllocatedCapacity": number,
    "Arguments": {
      "string": "string"
    },
    "Attempt": number,
    "CompletedOn": number,
    "DPUSeconds": number,
    "ErrorMessage": "string",
    "ExecutionClass": "string",
    "ExecutionTime": number,
    "GlueVersion": "string",
    "Id": "string",
    "JobName": "string",
    "JobRunState": "string",
    "LastModifiedOn": number,
    "LogGroupName": "string",
    "MaxCapacity": number,
    "NotificationProperty": {
      "NotifyDelayAfter": number
    },
    "NumberOfWorkers": number,
    "PredecessorRuns": [
      {
        "JobName": "string",
        "RunId": "string"
      }
    ],
    "PreviousRunId": "string",
    "SecurityConfiguration": "string",
    "StartedOn": number,
    "Timeout": number,
    "TriggerName": "string",
    "WorkerType": "string"
  }
}
```

```
}  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobRun

The requested job-run metadata.

Type: [JobRun](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetJobRuns

Retrieves metadata for all runs of a given job definition.

## Request Syntax

```
{  
  "JobName": "string",  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job definition for which to retrieve all job runs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### MaxResults

The maximum size of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "JobRuns": [
    {
      "AllocatedCapacity": number,
      "Arguments": {
        "string" : "string"
      },
      "Attempt": number,
      "CompletedOn": number,
      "DPUSeconds": number,
      "ErrorMessage": "string",
      "ExecutionClass": "string",
      "ExecutionTime": number,
      "GlueVersion": "string",
      "Id": "string",
      "JobName": "string",
      "JobRunState": "string",
      "LastModifiedOn": number,
      "LogGroupName": "string",
      "MaxCapacity": number,
      "NotificationProperty": {
        "NotifyDelayAfter": number
      },
      "NumberOfWorkers": number,
      "PredecessorRuns": [
        {
          "JobName": "string",
          "RunId": "string"
        }
      ],
      "PreviousRunId": "string",
      "SecurityConfiguration": "string",
      "StartedOn": number,
      "Timeout": number,
      "TriggerName": "string",
      "WorkerType": "string"
    }
  ]
}
```

```
],  
  "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobRuns

A list of job-run metadata objects.

Type: Array of [JobRun](#) objects

### NextToken

A continuation token, if not all requested job runs have been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetJobs

Retrieves all current job definitions.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum size of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "Jobs": [
    {
      "AllocatedCapacity": number,
      "CodeGenConfigurationNodes": {
        "string" : {
```



```
"Aggregate": {
  "Aggs": [
    {
      "AggFunc": "string",
      "Column": [ "string" ]
    }
  ],
  "Groups": [
    [ "string" ]
  ],
  "Inputs": [ "string" ],
  "Name": "string"
},
"AmazonRedshiftSource": {
  "Data": {
    "AccessType": "string",
    "Action": "string",
    "AdvancedOptions": [
      {
        "Key": "string",
        "Value": "string"
      }
    ],
    "CatalogDatabase": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "CatalogRedshiftSchema": "string",
    "CatalogRedshiftTable": "string",
    "CatalogTable": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "Connection": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "CrawlerConnection": "string",
    "IamRole": {
      "Description": "string",
      "Label": "string",
```

```
    "Value": "string"
  },
  "MergeAction": "string",
  "MergeClause": "string",
  "MergeWhenMatched": "string",
  "MergeWhenNotMatched": "string",
  "PostAction": "string",
  "PreAction": "string",
  "SampleQuery": "string",
  "Schema": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "SelectedColumns": [
    {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    }
  ],
  "SourceType": "string",
  "StagingTable": "string",
  "Table": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  },
  "TablePrefix": "string",
  "TableSchema": [
    {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    }
  ],
  "TempDir": "string",
  "Upsert": boolean
},
"Name": "string"
},
"AmazonRedshiftTarget": {
  "Data": {
    "AccessType": "string",
```

```
"Action": "string",
"AdvancedOptions": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"CatalogDatabase": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"CatalogRedshiftSchema": "string",
"CatalogRedshiftTable": "string",
"CatalogTable": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"Connection": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"CrawlerConnection": "string",
"IamRole": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"MergeAction": "string",
"MergeClause": "string",
"MergeWhenMatched": "string",
"MergeWhenNotMatched": "string",
"PostAction": "string",
"PreAction": "string",
"SampleQuery": "string",
"Schema": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"SelectedColumns": [
  {
```

```

        "Description": "string",
        "Label": "string",
        "Value": "string"
    }
],
"SourceType": "string",
"StagingTable": "string",
"Table": {
    "Description": "string",
    "Label": "string",
    "Value": "string"
},
"TablePrefix": "string",
"TableSchema": [
    {
        "Description": "string",
        "Label": "string",
        "Value": "string"
    }
],
"TempDir": "string",
"Upsert": boolean
},
"Inputs": [ "string" ],
"Name": "string"
},
"ApplyMapping": {
    "Inputs": [ "string" ],
    "Mapping": [
        {
            "Children": [
                "Mapping"
            ],
            "Dropped": boolean,
            "FromPath": [ "string" ],
            "FromType": "string",
            "ToKey": "string",
            "ToType": "string"
        }
    ],
    "Name": "string"
},
"AthenaConnectorSource": {
    "ConnectionName": "string",

```

```
    "ConnectionTable": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "SchemaName": "string"
  },
  "CatalogDeltaSource": {
    "AdditionalDeltaOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Table": "string"
  },
  "CatalogHudiSource": {
    "AdditionalHudiOptions": {
      "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
```

```

        "Name": "string",
        "Type": "string"
    }
  ]
}
],
"Table": "string"
},
"CatalogKafkaSource": {
  "Database": "string",
  "DataPreviewOptions": {
    "PollingTime": number,
    "RecordPollingLimit": number
  },
  "DetectSchema": boolean,
  "Name": "string",
  "StreamingOptions": {
    "AddRecordTimestamp": "string",
    "Assign": "string",
    "BootstrapServers": "string",
    "Classification": "string",
    "ConnectionName": "string",
    "Delimiter": "string",
    "EmitConsumerLagMetrics": "string",
    "EndingOffsets": "string",
    "IncludeHeaders": boolean,
    "MaxOffsetsPerTrigger": number,
    "MinPartitions": number,
    "NumRetries": number,
    "PollTimeoutMs": number,
    "RetryIntervalMs": number,
    "SecurityProtocol": "string",
    "StartingOffsets": "string",
    "StartingTimestamp": "string",
    "SubscribePattern": "string",
    "TopicName": "string"
  },
  "Table": "string",
  "WindowSize": number
},
"CatalogKinesisSource": {
  "Database": "string",
  "DataPreviewOptions": {
    "PollingTime": number,

```

```
    "RecordPollingLimit": number
  },
  "DetectSchema": boolean,
  "Name": "string",
  "StreamingOptions": {
    "AddIdleTimeBetweenReads": boolean,
    "AddRecordTimestamp": "string",
    "AvoidEmptyBatches": boolean,
    "Classification": "string",
    "Delimiter": "string",
    "DescribeShardInterval": number,
    "EmitConsumerLagMetrics": "string",
    "EndpointUrl": "string",
    "IdleTimeBetweenReadsInMs": number,
    "MaxFetchRecordsPerShard": number,
    "MaxFetchTimeInMs": number,
    "MaxRecordPerRead": number,
    "MaxRetryIntervalMs": number,
    "NumRetries": number,
    "RetryIntervalMs": number,
    "RoleArn": "string",
    "RoleSessionName": "string",
    "StartingPosition": "string",
    "StartingTimestamp": "string",
    "StreamArn": "string",
    "StreamName": "string"
  },
  "Table": "string",
  "WindowSize": number
},
"CatalogSource": {
  "Database": "string",
  "Name": "string",
  "Table": "string"
},
"CatalogTarget": {
  "Database": "string",
  "Inputs": [ "string ],
  "Name": "string",
  "Table": "string"
},
"ConnectorDataSource": {
  "ConnectionType": "string",
  "Data": {
```

```
        "string" : "string"
    },
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ]
},
"ConnectorDataTarget": {
    "ConnectionType": "string",
    "Data": {
        "string" : "string"
    },
    "Inputs": [ "string" ],
    "Name": "string"
},
"CustomCode": {
    "ClassName": "string",
    "Code": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ]
},
"DirectJDBCSource": {
    "ConnectionName": "string",
    "ConnectionType": "string",
    "Database": "string",
    "Name": "string",
    "RedshiftTmpDir": "string",
```



```
    "Table": "string"
  },
  "DirectKafkaSource": {
    "DataPreviewOptions": {
      "PollingTime": number,
      "RecordPollingLimit": number
    },
    "DetectSchema": boolean,
    "Name": "string",
    "StreamingOptions": {
      "AddRecordTimestamp": "string",
      "Assign": "string",
      "BootstrapServers": "string",
      "Classification": "string",
      "ConnectionName": "string",
      "Delimiter": "string",
      "EmitConsumerLagMetrics": "string",
      "EndingOffsets": "string",
      "IncludeHeaders": boolean,
      "MaxOffsetsPerTrigger": number,
      "MinPartitions": number,
      "NumRetries": number,
      "PollTimeoutMs": number,
      "RetryIntervalMs": number,
      "SecurityProtocol": "string",
      "StartingOffsets": "string",
      "StartingTimestamp": "string",
      "SubscribePattern": "string",
      "TopicName": "string"
    },
    "WindowSize": number
  },
  "DirectKinesisSource": {
    "DataPreviewOptions": {
      "PollingTime": number,
      "RecordPollingLimit": number
    },
    "DetectSchema": boolean,
    "Name": "string",
    "StreamingOptions": {
      "AddIdleTimeBetweenReads": boolean,
      "AddRecordTimestamp": "string",
      "AvoidEmptyBatches": boolean,
      "Classification": "string",
```

```

    "Delimiter": "string",
    "DescribeShardInterval": number,
    "EmitConsumerLagMetrics": "string",
    "EndpointUrl": "string",
    "IdleTimeBetweenReadsInMs": number,
    "MaxFetchRecordsPerShard": number,
    "MaxFetchTimeInMs": number,
    "MaxRecordPerRead": number,
    "MaxRetryIntervalMs": number,
    "NumRetries": number,
    "RetryIntervalMs": number,
    "RoleArn": "string",
    "RoleSessionName": "string",
    "StartingPosition": "string",
    "StartingTimestamp": "string",
    "StreamArn": "string",
    "StreamName": "string"
  },
  "WindowSize": number
},
"DropDuplicates": {
  "Columns": [
    [ "string" ]
  ],
  "Inputs": [ "string" ],
  "Name": "string"
},
"DropFields": {
  "Inputs": [ "string" ],
  "Name": "string",
  "Paths": [
    [ "string" ]
  ]
},
"DropNullFields": {
  "Inputs": [ "string" ],
  "Name": "string",
  "NullCheckBoxList": {
    "IsEmpty": boolean,
    "IsNegOne": boolean,
    "IsNullString": boolean
  },
  "NullTextList": [
    {

```

```
        "Datatype": {
            "Id": "string",
            "Label": "string"
        },
        "Value": "string"
    }
]
},
"DynamicTransform": {
    "FunctionName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ],
},
"Parameters": [
    {
        "IsOptional": boolean,
        "ListType": "string",
        "Name": "string",
        "Type": "string",
        "ValidationMessage": "string",
        "ValidationRule": "string",
        "Value": [ "string" ]
    }
],
"Path": "string",
"TransformName": "string",
"Version": "string"
},
"DynamoDBCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
},
"EvaluateDataQuality": {
    "Inputs": [ "string" ],
```

```
"Name": "string",
"Output": "string",
"PublishingOptions": {
  "CloudWatchMetricsEnabled": boolean,
  "EvaluationContext": "string",
  "ResultsPublishingEnabled": boolean,
  "ResultsS3Prefix": "string"
},
"Ruleset": "string",
"StopJobOnFailureOptions": {
  "StopJobOnFailureTiming": "string"
}
},
"EvaluateDataQualityMultiFrame": {
  "AdditionalDataSources": {
    "string" : "string"
  },
  "AdditionalOptions": {
    "string" : "string"
  },
  "Inputs": [ "string" ],
  "Name": "string",
  "PublishingOptions": {
    "CloudWatchMetricsEnabled": boolean,
    "EvaluationContext": "string",
    "ResultsPublishingEnabled": boolean,
    "ResultsS3Prefix": "string"
  },
  "Ruleset": "string",
  "StopJobOnFailureOptions": {
    "StopJobOnFailureTiming": "string"
  }
},
"FillMissingValues": {
  "FilledPath": "string",
  "ImputedPath": "string",
  "Inputs": [ "string" ],
  "Name": "string"
},
"Filter": {
  "Filters": [
    {
      "Negated": boolean,
      "Operation": "string",
```

```

        "Values": [
            {
                "Type": "string",
                "Value": [ "string" ]
            }
        ]
    },
    "Inputs": [ "string" ],
    "LogicalOperator": "string",
    "Name": "string"
},
"GovernedCatalogSource": {
    "AdditionalOptions": {
        "BoundedFiles": number,
        "BoundedSize": number
    },
    "Database": "string",
    "Name": "string",
    "PartitionPredicate": "string",
    "Table": "string"
},
"GovernedCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
        [ "string" ]
    ],
    "SchemaChangePolicy": {
        "EnableUpdateCatalog": boolean,
        "UpdateBehavior": "string"
    },
    "Table": "string"
},
"JDBCConnectorSource": {
    "AdditionalOptions": {
        "DataTypeMapping": {
            "string" : "string"
        },
        "FilterPredicate": "string",
        "JobBookmarkKeys": [ "string" ],
        "JobBookmarkKeysSortOrder": "string",
        "LowerBound": number,

```

```
        "NumPartitions": number,
        "PartitionColumn": "string",
        "UpperBound": number
    },
    "ConnectionName": "string",
    "ConnectionTable": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ],
    "Query": "string"
},
"JDBCConnectorTarget": {
    "AdditionalOptions": {
        "string" : "string"
    },
    "ConnectionName": "string",
    "ConnectionTable": "string",
    "ConnectionType": "string",
    "ConnectorName": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ]
},
"Join": {
    "Columns": [
```

```
    {
      "From": "string",
      "Keys": [
        [ "string" ]
      ]
    }
  ],
  "Inputs": [ "string" ],
  "JoinType": "string",
  "Name": "string"
},
"Merge": {
  "Inputs": [ "string" ],
  "Name": "string",
  "PrimaryKeys": [
    [ "string" ]
  ],
  "Source": "string"
},
"MicrosoftSQLServerCatalogSource": {
  "Database": "string",
  "Name": "string",
  "Table": "string"
},
"MicrosoftSQLServerCatalogTarget": {
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "Table": "string"
},
"MySQLCatalogSource": {
  "Database": "string",
  "Name": "string",
  "Table": "string"
},
"MySQLCatalogTarget": {
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "Table": "string"
},
"OracleSQLCatalogSource": {
  "Database": "string",
  "Name": "string",
```

```
    "Table": "string"
  },
  "OracleSQLCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
  },
  "PIIDetection": {
    "EntityTypesToDetect": [ "string" ],
    "Inputs": [ "string" ],
    "MaskValue": "string",
    "Name": "string",
    "OutputColumnName": "string",
    "PiiType": "string",
    "SampleFraction": number,
    "ThresholdFraction": number
  },
  "PostgreSQLCatalogSource": {
    "Database": "string",
    "Name": "string",
    "Table": "string"
  },
  "PostgreSQLCatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "Table": "string"
  },
  "Recipe": {
    "Inputs": [ "string" ],
    "Name": "string",
    "RecipeReference": {
      "RecipeArn": "string",
      "RecipeVersion": "string"
    }
  },
  "RedshiftSource": {
    "Database": "string",
    "Name": "string",
    "RedshiftTmpDir": "string",
    "Table": "string",
    "TmpDirIAMRole": "string"
  },
}
```



```
"RedshiftTarget": {
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "RedshiftTmpDir": "string",
  "Table": "string",
  "TmpDirIAMRole": "string",
  "UpsertRedshiftOptions": {
    "ConnectionName": "string",
    "TableLocation": "string",
    "UpsertKeys": [ "string" ]
  }
},
"RelationalCatalogSource": {
  "Database": "string",
  "Name": "string",
  "Table": "string"
},
"RenameField": {
  "Inputs": [ "string" ],
  "Name": "string",
  "SourcePath": [ "string" ],
  "TargetPath": [ "string" ]
},
"S3CatalogDeltaSource": {
  "AdditionalDeltaOptions": {
    "string" : "string"
  },
  "Database": "string",
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ],
  "Table": "string"
},
"S3CatalogHudiSource": {
  "AdditionalHudiOptions": {
```

```
        "string" : "string"
    },
    "Database": "string",
    "Name": "string",
    "OutputSchemas": [
        {
            "Columns": [
                {
                    "Name": "string",
                    "Type": "string"
                }
            ]
        }
    ],
    "Table": "string"
},
"S3CatalogSource": {
    "AdditionalOptions": {
        "BoundedFiles": number,
        "BoundedSize": number
    },
    "Database": "string",
    "Name": "string",
    "PartitionPredicate": "string",
    "Table": "string"
},
"S3CatalogTarget": {
    "Database": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
        [ "string" ]
    ],
    "SchemaChangePolicy": {
        "EnableUpdateCatalog": boolean,
        "UpdateBehavior": "string"
    },
    "Table": "string"
},
"S3CsvSource": {
    "AdditionalOptions": {
        "BoundedFiles": number,
        "BoundedSize": number,
        "EnableSamplePath": boolean,
```

```
    "SamplePath": "string"
  },
  "CompressionType": "string",
  "Escaper": "string",
  "Exclusions": [ "string" ],
  "GroupFiles": "string",
  "GroupSize": "string",
  "MaxBand": number,
  "MaxFilesInBand": number,
  "Multiline": boolean,
  "Name": "string",
  "OptimizePerformance": boolean,
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ],
  "Paths": [ "string" ],
  "QuoteChar": "string",
  "Recurse": boolean,
  "Separator": "string",
  "SkipFirst": boolean,
  "WithHeader": boolean,
  "WriteHeader": boolean
},
"S3DeltaCatalogTarget": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "PartitionKeys": [
    [ "string" ]
  ],
  "SchemaChangePolicy": {
    "EnableUpdateCatalog": boolean,
    "UpdateBehavior": "string"
  }
},
```

```

    "Table": "string"
  },
  "S3DeltaDirectTarget": {
    "AdditionalOptions": {
      "string" : "string"
    },
    "Compression": "string",
    "Format": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3DeltaSource": {
    "AdditionalDeltaOptions": {
      "string" : "string"
    },
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ]
  },

```

```
"S3DirectTarget": {
  "Compression": "string",
  "Format": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "PartitionKeys": [
    [ "string" ]
  ],
  "Path": "string",
  "SchemaChangePolicy": {
    "Database": "string",
    "EnableUpdateCatalog": boolean,
    "Table": "string",
    "UpdateBehavior": "string"
  }
},
"S3GlueParquetTarget": {
  "Compression": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "PartitionKeys": [
    [ "string" ]
  ],
  "Path": "string",
  "SchemaChangePolicy": {
    "Database": "string",
    "EnableUpdateCatalog": boolean,
    "Table": "string",
    "UpdateBehavior": "string"
  }
},
"S3HudiCatalogTarget": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "Database": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "PartitionKeys": [
    [ "string" ]
  ],
  "SchemaChangePolicy": {
    "EnableUpdateCatalog": boolean,
    "UpdateBehavior": "string"
  }
}
```

```

    },
    "Table": "string"
  },
  "S3HudiDirectTarget": {
    "AdditionalOptions": {
      "string": "string"
    },
    "Compression": "string",
    "Format": "string",
    "Inputs": [ "string" ],
    "Name": "string",
    "PartitionKeys": [
      [ "string" ]
    ],
    "Path": "string",
    "SchemaChangePolicy": {
      "Database": "string",
      "EnableUpdateCatalog": boolean,
      "Table": "string",
      "UpdateBehavior": "string"
    }
  },
  "S3HudiSource": {
    "AdditionalHudiOptions": {
      "string": "string"
    },
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ]
  }
}

```

```
},
  "S3JsonSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "CompressionType": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "JsonPath": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Multiline": boolean,
    "Name": "string",
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ],
    "Recurse": boolean
  },
  "S3ParquetSource": {
    "AdditionalOptions": {
      "BoundedFiles": number,
      "BoundedSize": number,
      "EnableSamplePath": boolean,
      "SamplePath": "string"
    },
    "CompressionType": "string",
    "Exclusions": [ "string" ],
    "GroupFiles": "string",
    "GroupSize": "string",
    "MaxBand": number,
    "MaxFilesInBand": number,
    "Name": "string",
```

```
    "OutputSchemas": [
      {
        "Columns": [
          {
            "Name": "string",
            "Type": "string"
          }
        ]
      }
    ],
    "Paths": [ "string" ],
    "Recurse": boolean
  },
  "SelectFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Paths": [
      [ "string" ]
    ]
  },
  "SelectFromCollection": {
    "Index": number,
    "Inputs": [ "string" ],
    "Name": "string"
  },
  "SnowflakeSource": {
    "Data": {
      "Action": "string",
      "AdditionalOptions": {
        "string" : "string"
      },
      "AutoPushdown": boolean,
      "Connection": {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      },
      "Database": "string",
      "IamRole": {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      },
      "MergeAction": "string",
```



```
"MergeClause": "string",
"MergeWhenMatched": "string",
"MergeWhenNotMatched": "string",
"PostAction": "string",
"PreAction": "string",
"SampleQuery": "string",
"Schema": "string",
"SelectedColumns": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"SourceType": "string",
"StagingTable": "string",
"Table": "string",
"TableSchema": [
  {
    "Description": "string",
    "Label": "string",
    "Value": "string"
  }
],
"TempDir": "string",
"Upsert": boolean
},
"Name": "string",
"OutputSchemas": [
  {
    "Columns": [
      {
        "Name": "string",
        "Type": "string"
      }
    ]
  }
]
},
"SnowflakeTarget": {
  "Data": {
    "Action": "string",
    "AdditionalOptions": {
      "string" : "string"
    }
  }
}
```

```
    },
    "AutoPushdown": boolean,
    "Connection": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "Database": "string",
    "IamRole": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "MergeAction": "string",
    "MergeClause": "string",
    "MergeWhenMatched": "string",
    "MergeWhenNotMatched": "string",
    "PostAction": "string",
    "PreAction": "string",
    "SampleQuery": "string",
    "Schema": "string",
    "SelectedColumns": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "SourceType": "string",
    "StagingTable": "string",
    "Table": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Inputs": [ "string ],
  "Name": "string"
},
```

```
"SparkConnectorSource": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "ConnectionName": "string",
  "ConnectionType": "string",
  "ConnectorName": "string",
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
},
"SparkConnectorTarget": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "ConnectionName": "string",
  "ConnectionType": "string",
  "ConnectorName": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
},
"SparkSQL": {
  "Inputs": [ "string" ],
  "Name": "string",
  "OutputSchemas": [
    {
```

```
        "Columns": [
            {
                "Name": "string",
                "Type": "string"
            }
        ]
    },
    ],
    "SqlAliases": [
        {
            "Alias": "string",
            "From": "string"
        }
    ],
    "SqlQuery": "string"
},
"Spigot": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Path": "string",
    "Prob": number,
    "Topk": number
},
"SplitFields": {
    "Inputs": [ "string" ],
    "Name": "string",
    "Paths": [
        [ "string" ]
    ]
},
"Union": {
    "Inputs": [ "string" ],
    "Name": "string",
    "UnionType": "string"
}
},
"Command": {
    "Name": "string",
    "PythonVersion": "string",
    "Runtime": "string",
    "ScriptLocation": "string"
},
"Connections": {
```

```
    "Connections": [ "string" ]
  },
  "CreatedOn": number,
  "DefaultArguments": {
    "string" : "string"
  },
  "Description": "string",
  "ExecutionClass": "string",
  "ExecutionProperty": {
    "MaxConcurrentRuns": number
  },
  "GlueVersion": "string",
  "LastModifiedOn": number,
  "LogUri": "string",
  "MaxCapacity": number,
  "MaxRetries": number,
  "Name": "string",
  "NonOverridableArguments": {
    "string" : "string"
  },
  "NotificationProperty": {
    "NotifyDelayAfter": number
  },
  "NumberOfWorkers": number,
  "Role": "string",
  "SecurityConfiguration": "string",
  "SourceControlDetails": {
    "AuthStrategy": "string",
    "AuthToken": "string",
    "Branch": "string",
    "Folder": "string",
    "LastCommitId": "string",
    "Owner": "string",
    "Provider": "string",
    "Repository": "string"
  },
  "Timeout": number,
  "WorkerType": "string"
}
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Jobs

A list of job definitions.

Type: Array of [Job](#) objects

### NextToken

A continuation token, if not all job definitions have yet been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetMapping

Creates mappings.

## Request Syntax

```
{
  "Location": [
    {
      "DynamoDB": [
        {
          "Name": "string",
          "Param": boolean,
          "Value": "string"
        }
      ],
      "Jdbc": [
        {
          "Name": "string",
          "Param": boolean,
          "Value": "string"
        }
      ],
      "S3": [
        {
          "Name": "string",
          "Param": boolean,
          "Value": "string"
        }
      ]
    },
    {
      "Sinks": [
        {
          "DatabaseName": "string",
          "TableName": "string"
        }
      ],
      "Source": {
        "DatabaseName": "string",
        "TableName": "string"
      }
    }
  ]
}
```



## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Location

Parameters for the mapping.

Type: [Location](#) object

Required: No

### Sinks

A list of target tables.

Type: Array of [CatalogEntry](#) objects

Required: No

### Source

Specifies the source table.

Type: [CatalogEntry](#) object

Required: Yes

## Response Syntax

```
{
  "Mapping": [
    {
      "SourcePath": "string",
      "SourceTable": "string",
      "SourceType": "string",
      "TargetPath": "string",
      "TargetTable": "string",
      "TargetType": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Mapping

A list of mappings to the specified targets.

Type: Array of [MappingEntry](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetMLTaskRun

Gets details for a specific task run on a machine learning transform. Machine learning task runs are asynchronous tasks that AWS Glue runs on your behalf as part of various machine learning workflows. You can check the stats of any task run by calling `GetMLTaskRun` with the `TaskRunID` and its parent transform's `TransformID`.

## Request Syntax

```
{
  "TaskRunId": "string",
  "TransformId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TaskRunId

The unique identifier of the task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "CompletedOn": number,
  "ErrorString": "string",
  "ExecutionTime": number,
  "LastModifiedOn": number,
  "LogGroupName": "string",
  "Properties": {
    "ExportLabelsTaskRunProperties": {
      "OutputS3Path": "string"
    },
    "FindMatchesTaskRunProperties": {
      "JobId": "string",
      "JobName": "string",
      "JobRunId": "string"
    },
    "ImportLabelsTaskRunProperties": {
      "InputS3Path": "string",
      "Replace": boolean
    },
    "LabelingSetGenerationTaskRunProperties": {
      "OutputS3Path": "string"
    },
    "TaskType": "string"
  },
  "StartedOn": number,
  "Status": "string",
  "TaskRunId": "string",
  "TransformId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CompletedOn

The date and time when this task run was completed.

Type: Timestamp

### ErrorString

The error strings that are associated with the task run.

Type: String

### ExecutionTime

The amount of time (in seconds) that the task run consumed resources.

Type: Integer

### LastModifiedOn

The date and time when this task run was last modified.

Type: Timestamp

### LogGroupName

The names of the log groups that are associated with the task run.

Type: String

### Properties

The list of properties that are associated with the task run.

Type: [TaskRunProperties](#) object

### StartedOn

The date and time when this task run started.

Type: Timestamp

### Status

The status for this task run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

### TaskRunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

### **TransformId**

The unique identifier of the task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetMLTaskRuns

Gets a list of runs for a machine learning transform. Machine learning task runs are asynchronous tasks that AWS Glue runs on your behalf as part of various machine learning workflows. You can get a sortable, filterable list of machine learning task runs by calling `GetMLTaskRuns` with their parent transform's `TransformID` and other optional parameters as documented in this section.

This operation returns a list of historic runs and must be paginated.

## Request Syntax

```
{
  "Filter": {
    "StartedAfter": number,
    "StartedBefore": number,
    "Status": "string",
    "TaskRunType": "string"
  },
  "MaxResults": number,
  "NextToken": "string",
  "Sort": {
    "Column": "string",
    "SortDirection": "string"
  },
  "TransformId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Filter

The filter criteria, in the `TaskRunFilterCriteria` structure, for the task run.

Type: [TaskRunFilterCriteria](#) object

Required: No

## MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## NextToken

A token for pagination of the results. The default is empty.

Type: String

Required: No

## Sort

The sorting criteria, in the `TaskRunSortCriteria` structure, for the task run.

Type: [TaskRunSortCriteria](#) object

Required: No

## TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "TaskRuns": [
```

```
{
  "CompletedOn": number,
  "ErrorString": "string",
  "ExecutionTime": number,
  "LastModifiedOn": number,
  "LogGroupName": "string",
  "Properties": {
    "ExportLabelsTaskRunProperties": {
      "OutputS3Path": "string"
    },
    "FindMatchesTaskRunProperties": {
      "JobId": "string",
      "JobName": "string",
      "JobRunId": "string"
    },
    "ImportLabelsTaskRunProperties": {
      "InputS3Path": "string",
      "Replace": boolean
    },
    "LabelingSetGenerationTaskRunProperties": {
      "OutputS3Path": "string"
    },
    "TaskType": "string"
  },
  "StartedOn": number,
  "Status": "string",
  "TaskRunId": "string",
  "TransformId": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A pagination token, if more results are available.

Type: String

## [TaskRuns](#)

A list of task runs that are associated with the transform.

Type: Array of [TaskRun](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetMLTransform

Gets an AWS Glue machine learning transform artifact and all its corresponding metadata. Machine learning transforms are a special type of transform that use machine learning to learn the details of the transformation to be performed by learning from examples provided by humans. These transformations are then saved by AWS Glue. You can retrieve their metadata by calling `GetMLTransform`.

## Request Syntax

```
{
  "TransformId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TransformId

The unique identifier of the transform, generated at the time that the transform was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "CreatedOn": number,
  "Description": "string",
  "EvaluationMetrics": {
    "FindMatchesMetrics": {
      "AreaUnderPRCurve": number,
      "ColumnImportances": [
```

```
    {
      "ColumnName": "string",
      "Importance": number
    }
  ],
  "ConfusionMatrix": {
    "NumFalseNegatives": number,
    "NumFalsePositives": number,
    "NumTrueNegatives": number,
    "NumTruePositives": number
  },
  "F1": number,
  "Precision": number,
  "Recall": number
},
"TransformType": "string"
},
"GlueVersion": "string",
"InputRecordTables": [
  {
    "AdditionalOptions": {
      "string": "string"
    },
    "CatalogId": "string",
    "ConnectionName": "string",
    "DatabaseName": "string",
    "TableName": "string"
  }
],
"LabelCount": number,
"LastModifiedOn": number,
"MaxCapacity": number,
"MaxRetries": number,
"Name": "string",
"NumberOfWorkers": number,
"Parameters": {
  "FindMatchesParameters": {
    "AccuracyCostTradeoff": number,
    "EnforceProvidedLabels": boolean,
    "PrecisionRecallTradeoff": number,
    "PrimaryKeyColumnName": "string"
  },
  "TransformType": "string"
},
},
```

```
"Role": "string",
"Schema": [
  {
    "DataType": "string",
    "Name": "string"
  }
],
"Status": "string",
"Timeout": number,
"TransformEncryption": {
  "MLUserDataEncryption": {
    "KmsKeyId": "string",
    "MLUserDataEncryptionMode": "string"
  },
  "TaskRunSecurityConfigurationName": "string"
},
"TransformId": "string",
"WorkerType": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedOn

The date and time when the transform was created.

Type: Timestamp

### Description

A description of the transform.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\x\n\t]*`

### EvaluationMetrics

The latest evaluation metrics.



Type: [EvaluationMetrics](#) object

### GlueVersion

This value determines which version of AWS Glue this machine learning transform is compatible with. Glue 1.0 is recommended for most customers. If the value is not set, the Glue compatibility defaults to Glue 0.9. For more information, see [AWS Glue Versions](#) in the developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

### InputRecordTables

A list of AWS Glue table definitions used by the transform.

Type: Array of [GlueTable](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

### LabelCount

The number of labels available for this transform.

Type: Integer

### LastModifiedOn

The date and time when the transform was last modified.

Type: Timestamp

### MaxCapacity

The number of AWS Glue data processing units (DPUs) that are allocated to task runs for this transform. You can allocate from 2 to 100 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

When the `WorkerType` field is set to a value other than `Standard`, the `MaxCapacity` field is set automatically and becomes read-only.

Type: Double

## MaxRetries

The maximum number of times to retry a task for this transform after a task run fails.

Type: Integer

## Name

The unique name given to the transform when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when this task runs.

Type: Integer

## Parameters

The configuration parameters that are specific to the algorithm used.

Type: [TransformParameters](#) object

## Role

The name or Amazon Resource Name (ARN) of the IAM role with the required permissions.

Type: String

## Schema

The `Map<Column, Type>` object that represents the schema that this transform accepts. Has an upper bound of 100 columns.

Type: Array of [SchemaColumn](#) objects

Array Members: Maximum number of 100 items.

## Status

The last known status of the transform (to indicate whether it can be used or not). One of "NOT\_READY", "READY", or "DELETING".

Type: String

Valid Values: NOT\_READY | READY | DELETING

### Timeout

The timeout for a task run for this transform in minutes. This is the maximum time that a task run for this transform can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

### TransformEncryption

The encryption-at-rest settings of the transform that apply to accessing user data. Machine learning transforms can access user data encrypted in Amazon S3 using KMS.

Type: [TransformEncryption](#) object

### TransformId

The unique identifier of the transform, generated at the time that the transform was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u00DC-\u00BF\u00DF\u00t]*`

### WorkerType

The type of predefined worker that is allocated when this task runs. Accepts a value of Standard, G.1X, or G.2X.

- For the Standard worker type, each worker provides 4 vCPU, 16 GB of memory and a 50GB disk, and 2 executors per worker.
- For the G.1X worker type, each worker provides 4 vCPU, 16 GB of memory and a 64GB disk, and 1 executor per worker.
- For the G.2X worker type, each worker provides 8 vCPU, 32 GB of memory and a 128GB disk, and 1 executor per worker.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetMLTransforms

Gets a sortable, filterable list of existing AWS Glue machine learning transforms. Machine learning transforms are a special type of transform that use machine learning to learn the details of the transformation to be performed by learning from examples provided by humans. These transformations are then saved by AWS Glue, and you can retrieve their metadata by calling `GetMLTransforms`.

## Request Syntax

```
{
  "Filter": {
    "CreatedAfter": number,
    "CreatedBefore": number,
    "GlueVersion": "string",
    "LastModifiedAfter": number,
    "LastModifiedBefore": number,
    "Name": "string",
    "Schema": [
      {
        "DataType": "string",
        "Name": "string"
      }
    ],
    "Status": "string",
    "TransformType": "string"
  },
  "MaxResults": number,
  "NextToken": "string",
  "Sort": {
    "Column": "string",
    "SortDirection": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## Filter

The filter transformation criteria.

Type: [TransformFilterCriteria](#) object

Required: No

## MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## NextToken

A paginated token to offset the results.

Type: String

Required: No

## Sort

The sorting criteria.

Type: [TransformSortCriteria](#) object

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Transforms": [
    {
      "CreatedOn": number,
      "Description": "string",
      "EvaluationMetrics": {
        "FindMatchesMetrics": {
          "AreaUnderPRCurve": number,
          "ColumnImportances": [
```

```
    {
      "ColumnName": "string",
      "Importance": number
    }
  ],
  "ConfusionMatrix": {
    "NumFalseNegatives": number,
    "NumFalsePositives": number,
    "NumTrueNegatives": number,
    "NumTruePositives": number
  },
  "F1": number,
  "Precision": number,
  "Recall": number
},
"TransformType": "string"
},
"GlueVersion": "string",
"InputRecordTables": [
  {
    "AdditionalOptions": {
      "string": "string"
    },
    "CatalogId": "string",
    "ConnectionName": "string",
    "DatabaseName": "string",
    "TableName": "string"
  }
],
"LabelCount": number,
"LastModifiedOn": number,
"MaxCapacity": number,
"MaxRetries": number,
"Name": "string",
"NumberOfWorkers": number,
"Parameters": {
  "FindMatchesParameters": {
    "AccuracyCostTradeoff": number,
    "EnforceProvidedLabels": boolean,
    "PrecisionRecallTradeoff": number,
    "PrimaryKeyColumnName": "string"
  },
  "TransformType": "string"
},
},
```



```
"Role": "string",
"Schema": [
  {
    "DataType": "string",
    "Name": "string"
  }
],
"Status": "string",
"Timeout": number,
"TransformEncryption": {
  "MLUserDataEncryption": {
    "KmsKeyId": "string",
    "MLUserDataEncryptionMode": "string"
  },
  "TaskRunSecurityConfigurationName": "string"
},
"TransformId": "string",
"WorkerType": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A pagination token, if more results are available.

Type: String

### Transforms

A list of machine learning transforms.

Type: Array of [MLTransform](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetPartition

Retrieves information about a specified partition.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "DatabaseName": "string",  
  "PartitionValues": [ "string" ],  
  "TableName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partition in question resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database where the partition resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## PartitionValues

The values that define the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

## TableName

The name of the partition's table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Partition": {
    "CatalogId": "string",
    "CreationTime": number,
    "DatabaseName": "string",
    "LastAccessTime": number,
    "LastAnalyzedTime": number,
    "Parameters": {
      "string" : "string"
    },
    "StorageDescriptor": {
      "AdditionalLocations": [ "string" ],
      "BucketColumns": [ "string" ],
      "Columns": [
        {
          "Comment": "string",
          "Name": "string",
          "Parameters": {
            "string" : "string"
          }
        }
      ],
    }
  }
}
```

```
    "Type": "string"
  }
],
"Compressed": boolean,
"InputFormat": "string",
"Location": "string",
"NumberOfBuckets": number,
"OutputFormat": "string",
"Parameters": {
  "string" : "string"
},
"SchemaReference": {
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": number
},
"SerdeInfo": {
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "SerializationLibrary": "string"
},
"SkewedInfo": {
  "SkewedColumnNames": [ "string" ],
  "SkewedColumnValueLocationMaps": {
    "string" : "string"
  },
  "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
  {
    "Column": "string",
    "SortOrder": number
  }
],
"StoredAsSubDirectories": boolean
},
"TableName": "string",
"Values": [ "string" ]
```

```
}  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Partition

The requested information, in the form of a `Partition` object.

Type: [Partition](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **FederationSourceException**

A federation source failed.

HTTP Status Code: 400

### **FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetPartitionIndexes

Retrieves the partition indexes associated with a table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "NextToken": "string",
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The catalog ID where the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

Specifies the name of a database from which you want to retrieve partition indexes.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes



## NextToken

A continuation token, included if this is a continuation call.

Type: String

Required: No

## TableName

Specifies the name of a table for which you want to retrieve the partition indexes.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "PartitionIndexDescriptorList": [
    {
      "BackfillErrors": [
        {
          "Code": "string",
          "Partitions": [
            {
              "Values": [ "string" ]
            }
          ]
        }
      ],
      "IndexName": "string",
      "IndexStatus": "string",
      "Keys": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
}
```

```
    ]
  }
]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, present if the current list segment is not the last.

Type: String

### PartitionIndexDescriptorList

A list of index descriptors.

Type: Array of [PartitionIndexDescriptor](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

The `CreatePartitions` API was called on a table that has indexes enabled.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetPartitions

Retrieves information about the partitions in a table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "ExcludeColumnSchema": boolean,
  "Expression": "string",
  "MaxResults": number,
  "NextToken": "string",
  "QueryAsOfTime": number,
  "Segment": {
    "SegmentNumber": number,
    "TotalSegments": number
  },
  "TableName": "string",
  "TransactionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partitions in question reside. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u0100-\u017F\u0180-\u01FF\u0200-\u02FF\u0300-\u037F\u0380-\u03FF\u0400-\u047F\u0480-\u04FF\u0500-\u057F\u0580-\u05FF\u0600-\u06FF\u0700-\u077F\u0780-\u07FF\u0800-\u087F\u0880-\u08FF\u0900-\u097F\u0980-\u09FF\u0A00-\u0A7F\u0A80-\u0AFF\u0B00-\u0B7F\u0B80-\u0BFF\u0C00-\u0C7F\u0C80-\u0CFF\u0D00-\u0D7F\u0D80-\u0DBF\u0DC0-\u0DBF\u0E00-\u0E7F\u0E80-\u0EFF\u0F00-\u0F7F\u0F80-\u0FFF\u1000-\u107F\u1080-\u10FF\u1100-\u117F\u1180-\u11FF\u1200-\u127F\u1280-\u12FF\u1300-\u137F\u1380-\u13FF\u1400-\u147F\u1480-\u14FF\u1500-\u157F\u1580-\u15FF\u1600-\u167F\u1680-\u16FF\u1700-\u177F\u1780-\u17FF\u1800-\u187F\u1880-\u18FF\u1900-\u197F\u1980-\u19FF\u1A00-\u1A7F\u1A80-\u1AFF\u1B00-\u1B7F\u1B80-\u1BFF\u1C00-\u1C7F\u1C80-\u1CFF\u1D00-\u1D7F\u1D80-\u1DBF\u1E00-\u1E7F\u1E80-\u1EFF\u1F00-\u1F7F\u1F80-\u1FFF\u2000-\u207F\u2080-\u20FF\u2100-\u217F\u2180-\u21FF\u2200-\u227F\u2280-\u22FF\u2300-\u237F\u2380-\u23FF\u2400-\u247F\u2480-\u24FF\u2500-\u257F\u2580-\u25FF\u2600-\u267F\u2680-\u26FF\u2700-\u277F\u2780-\u27FF\u2800-\u287F\u2880-\u28FF\u2900-\u297F\u2980-\u29FF\u2A00-\u2A7F\u2A80-\u2AFF\u2B00-\u2B7F\u2B80-\u2BFF\u2C00-\u2C7F\u2C80-\u2CFF\u2D00-\u2D7F\u2D80-\u2DBF\u2E00-\u2E7F\u2E80-\u2EFF\u2F00-\u2F7F\u2F80-\u2FFF\u3000-\u307F\u3080-\u30FF\u3100-\u317F\u3180-\u31FF\u3200-\u327F\u3280-\u32FF\u3300-\u337F\u3380-\u33FF\u3400-\u347F\u3480-\u34FF\u3500-\u357F\u3580-\u35FF\u3600-\u367F\u3680-\u36FF\u3700-\u377F\u3780-\u37FF\u3800-\u387F\u3880-\u38FF\u3900-\u397F\u3980-\u39FF\u3A00-\u3A7F\u3A80-\u3AFF\u3B00-\u3B7F\u3B80-\u3BFF\u3C00-\u3C7F\u3C80-\u3CFF\u3D00-\u3D7F\u3D80-\u3DBF\u3E00-\u3E7F\u3E80-\u3EFF\u3F00-\u3F7F\u3F80-\u3FFF\u4000-\u407F\u4080-\u40FF\u4100-\u417F\u4180-\u41FF\u4200-\u427F\u4280-\u42FF\u4300-\u437F\u4380-\u43FF\u4400-\u447F\u4480-\u44FF\u4500-\u457F\u4580-\u45FF\u4600-\u467F\u4680-\u46FF\u4700-\u477F\u4780-\u47FF\u4800-\u487F\u4880-\u48FF\u4900-\u497F\u4980-\u49FF\u4A00-\u4A7F\u4A80-\u4AFF\u4B00-\u4B7F\u4B80-\u4BFF\u4C00-\u4C7F\u4C80-\u4CFF\u4D00-\u4D7F\u4D80-\u4DBF\u4E00-\u4E7F\u4E80-\u4EFF\u4F00-\u4F7F\u4F80-\u4FFF\u5000-\u507F\u5080-\u50FF\u5100-\u517F\u5180-\u51FF\u5200-\u527F\u5280-\u52FF\u5300-\u537F\u5380-\u53FF\u5400-\u547F\u5480-\u54FF\u5500-\u557F\u5580-\u55FF\u5600-\u567F\u5680-\u56FF\u5700-\u577F\u5780-\u57FF\u5800-\u587F\u5880-\u58FF\u5900-\u597F\u5980-\u59FF\u5A00-\u5A7F\u5A80-\u5AFF\u5B00-\u5B7F\u5B80-\u5BFF\u5C00-\u5C7F\u5C80-\u5CFF\u5D00-\u5D7F\u5D80-\u5DBF\u5E00-\u5E7F\u5E80-\u5EFF\u5F00-\u5F7F\u5F80-\u5FFF\u6000-\u607F\u6080-\u60FF\u6100-\u617F\u6180-\u61FF\u6200-\u627F\u6280-\u62FF\u6300-\u637F\u6380-\u63FF\u6400-\u647F\u6480-\u64FF\u6500-\u657F\u6580-\u65FF\u6600-\u667F\u6680-\u66FF\u6700-\u677F\u6780-\u67FF\u6800-\u687F\u6880-\u68FF\u6900-\u697F\u6980-\u69FF\u6A00-\u6A7F\u6A80-\u6AFF\u6B00-\u6B7F\u6B80-\u6BFF\u6C00-\u6C7F\u6C80-\u6CFF\u6D00-\u6D7F\u6D80-\u6DBF\u6E00-\u6E7F\u6E80-\u6EFF\u6F00-\u6F7F\u6F80-\u6FFF\u7000-\u707F\u7080-\u70FF\u7100-\u717F\u7180-\u71FF\u7200-\u727F\u7280-\u72FF\u7300-\u737F\u7380-\u73FF\u7400-\u747F\u7480-\u74FF\u7500-\u757F\u7580-\u75FF\u7600-\u767F\u7680-\u76FF\u7700-\u777F\u7780-\u77FF\u7800-\u787F\u7880-\u78FF\u7900-\u797F\u7980-\u79FF\u7A00-\u7A7F\u7A80-\u7AFF\u7B00-\u7B7F\u7B80-\u7BFF\u7C00-\u7C7F\u7C80-\u7CFF\u7D00-\u7D7F\u7D80-\u7DBF\u7E00-\u7E7F\u7E80-\u7EFF\u7F00-\u7F7F\u7F80-\u7FFF\u8000-\u807F\u8080-\u80FF\u8100-\u817F\u8180-\u81FF\u8200-\u827F\u8280-\u82FF\u8300-\u837F\u8380-\u83FF\u8400-\u847F\u8480-\u84FF\u8500-\u857F\u8580-\u85FF\u8600-\u867F\u8680-\u86FF\u8700-\u877F\u8780-\u87FF\u8800-\u887F\u8880-\u88FF\u8900-\u897F\u8980-\u89FF\u8A00-\u8A7F\u8A80-\u8AFF\u8B00-\u8B7F\u8B80-\u8BFF\u8C00-\u8C7F\u8C80-\u8CFF\u8D00-\u8D7F\u8D80-\u8DBF\u8E00-\u8E7F\u8E80-\u8EFF\u8F00-\u8F7F\u8F80-\u8FFF\u9000-\u907F\u9080-\u90FF\u9100-\u917F\u9180-\u91FF\u9200-\u927F\u9280-\u92FF\u9300-\u937F\u9380-\u93FF\u9400-\u947F\u9480-\u94FF\u9500-\u957F\u9580-\u95FF\u9600-\u967F\u9680-\u96FF\u9700-\u977F\u9780-\u97FF\u9800-\u987F\u9880-\u98FF\u9900-\u997F\u9980-\u99FF\u9A00-\u9A7F\u9A80-\u9AFF\u9B00-\u9B7F\u9B80-\u9BFF\u9C00-\u9C7F\u9C80-\u9CFF\u9D00-\u9D7F\u9D80-\u9DBF\u9E00-\u9E7F\u9E80-\u9EFF\u9F00-\u9F7F\u9F80-\u9FFF\uA000-\uA07F\uA080-\uA0FF\uA100-\uA17F\uA180-\uA1FF\uA200-\uA27F\uA280-\uA2FF\uA300-\uA37F\uA380-\uA3FF\uA400-\uA47F\uA480-\uA4FF\uA500-\uA57F\uA580-\uA5FF\uA600-\uA67F\uA680-\uA6FF\uA700-\uA77F\uA780-\uA7FF\uA800-\uA87F\uA880-\uA8FF\uA900-\uA97F\uA980-\uA9FF\uAA00-\uAA7F\uAA80-\uAAFF\uAB00-\uAB7F\uAB80-\uABFF\uAC00-\uAC7F\uAC80-\uACFF\uAD00-\uAD7F\uAD80-\uADFF\uAE00-\uAE7F\uAE80-\uAEFF\uAF00-\uAF7F\uAF80-\uAFFF\uB000-\uB07F\uB080-\uB0FF\uB100-\uB17F\uB180-\uB1FF\uB200-\uB27F\uB280-\uB2FF\uB300-\uB37F\uB380-\uB3FF\uB400-\uB47F\uB480-\uB4FF\uB500-\uB57F\uB580-\uB5FF\uB600-\uB67F\uB680-\uB6FF\uB700-\uB77F\uB780-\uB7FF\uB800-\uB87F\uB880-\uB8FF\uB900-\uB97F\uB980-\uB9FF\uBA00-\uBA7F\uBA80-\uBAFF\uBB00-\uBB7F\uBB80-\uBBFF\uBC00-\uBC7F\uBC80-\uBCFF\uBD00-\uBD7F\uBD80-\uBDBF\uBE00-\uBE7F\uBE80-\uBEFF\uBF00-\uBF7F\uBF80-\uBFFF\uC000-\uC07F\uC080-\uC0FF\uC100-\uC17F\uC180-\uC1FF\uC200-\uC27F\uC280-\uC2FF\uC300-\uC37F\uC380-\uC3FF\uC400-\uC47F\uC480-\uC4FF\uC500-\uC57F\uC580-\uC5FF\uC600-\uC67F\uC680-\uC6FF\uC700-\uC77F\uC780-\uC7FF\uC800-\uC87F\uC880-\uC8FF\uC900-\uC97F\uC980-\uC9FF\uCA00-\uCA7F\uCA80-\uCAFF\uCB00-\uCB7F\uCB80-\uCBFF\uCC00-\uCC7F\uCC80-\uCCFF\uCD00-\uCD7F\uCD80-\uCDFF\uCE00-\uCE7F\uCE80-\uCEFF\uCF00-\uCF7F\uCF80-\uCFFF\uD000-\uD07F\uD080-\uD0FF\uD100-\uD17F\uD180-\uD1FF\uD200-\uD27F\uD280-\uD2FF\uD300-\uD37F\uD380-\uD3FF\uD400-\uD47F\uD480-\uD4FF\uD500-\uD57F\uD580-\uD5FF\uD600-\uD67F\uD680-\uD6FF\uD700-\uD77F\uD780-\uD7FF\uD800-\uD87F\uD880-\uD8FF\uD900-\uD97F\uD980-\uD9FF\uDA00-\uDA7F\uDA80-\uDAFF\uDB00-\uDB7F\uDB80-\uDBFF\uDC00-\uDC7F\uDC80-\uDCFF\uDD00-\uDD7F\uDD80-\uDDFF\uDE00-\uDE7F\uDE80-\uDEFF\uDF00-\uDF7F\uDF80-\uDFFF\uE000-\uE07F\uE080-\uE0FF\uE100-\uE17F\uE180-\uE1FF\uE200-\uE27F\uE280-\uE2FF\uE300-\uE37F\uE380-\uE3FF\uE400-\uE47F\uE480-\uE4FF\uE500-\uE57F\uE580-\uE5FF\uE600-\uE67F\uE680-\uE6FF\uE700-\uE77F\uE780-\uE7FF\uE800-\uE87F\uE880-\uE8FF\uE900-\uE97F\uE980-\uE9FF\uEA00-\uEA7F\uEA80-\uEAFF\uEB00-\uEB7F\uEB80-\uEBFF\uEC00-\uEC7F\uEC80-\uECFF\uED00-\uED7F\uED80-\uEDFF\uEE00-\uEE7F\uEE80-\uEEFF\uEF00-\uEF7F\uEF80-\uEFFF\uF000-\uF07F\uF080-\uF0FF\uF100-\uF17F\uF180-\uF1FF\uF200-\uF27F\uF280-\uF2FF\uF300-\uF37F\uF380-\uF3FF\uF400-\uF47F\uF480-\uF4FF\uF500-\uF57F\uF580-\uF5FF\uF600-\uF67F\uF680-\uF6FF\uF700-\uF77F\uF780-\uF7FF\uF800-\uF87F\uF880-\uF8FF\uF900-\uF97F\uF980-\uF9FF\uFA00-\uFA7F\uFA80-\uFAFF\uFB00-\uFB7F\uFB80-\uFBFF\uFC00-\uFC7F\uFC80-\uFCFF\uFD00-\uFD7F\uFD80-\uFDFF\uFE00-\uFE7F\uFE80-\uFEFF\uFF00-\uFF7F\uFF80-\uFFFF`

Required: No

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### ExcludeColumnSchema

When true, specifies not returning the partition column schema. Useful when you are interested only in other partition attributes such as partition values or location. This approach avoids the problem of a large response by not returning duplicate data.

Type: Boolean

Required: No

### Expression

An expression that filters the partitions to be returned.

The expression uses SQL syntax similar to the SQL WHERE filter clause. The SQL statement parser [JSQLParser](#) parses the expression.

*Operators:* The following are the operators that you can use in the Expression API call:

=

Checks whether the values of the two operands are equal; if yes, then the condition becomes true.

Example: Assume 'variable a' holds 10 and 'variable b' holds 20.

(a = b) is not true.

< >

Checks whether the values of two operands are equal; if the values are not equal, then the condition becomes true.

Example: (a < > b) is true.

>

Checks whether the value of the left operand is greater than the value of the right operand; if yes, then the condition becomes true.

Example: (a > b) is not true.

<

Checks whether the value of the left operand is less than the value of the right operand; if yes, then the condition becomes true.

Example: (a < b) is true.

>=

Checks whether the value of the left operand is greater than or equal to the value of the right operand; if yes, then the condition becomes true.

Example: (a >= b) is not true.

<=

Checks whether the value of the left operand is less than or equal to the value of the right operand; if yes, then the condition becomes true.

Example: (a <= b) is true.

AND, OR, IN, BETWEEN, LIKE, NOT, IS NULL

Logical operators.

*Supported Partition Key Types:* The following are the supported partition keys.

- string
- date
- timestamp
- int
- bigint
- long
- tinyint
- smallint
- decimal

If an type is encountered that is not valid, an exception is thrown.

The following list shows the valid operators on each type. When you define a crawler, the `partitionKey` type is created as a `STRING`, to be compatible with the catalog partitions.

### *Sample API Call:*

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### MaxResults

The maximum number of partitions to return in a single response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is not the first call to retrieve these partitions.

Type: String

Required: No

### QueryAsOfTime

The time as of when to read the partition contents. If not set, the most recent transaction commit time will be used. Cannot be specified along with `TransactionId`.

Type: Timestamp

Required: No

### Segment

The segment of the table's partitions to scan in this request.

Type: [Segment](#) object

Required: No

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TransactionId

The transaction ID at which to read the partition contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\p{L}\p{N}\p{P}]*`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Partitions": [
    {
      "CatalogId": "string",
      "CreationTime": number,
      "DatabaseName": "string",
      "LastAccessTime": number,
      "LastAnalyzedTime": number,
      "Parameters": {
        "string" : "string"
      },
      "StorageDescriptor": {
        "AdditionalLocations": [ "string" ],
        "BucketColumns": [ "string" ],
        "Columns": [
          {
            "Comment": "string",
            "Name": "string",
            "Parameters": {
              "string" : "string"
            }
          }
        ],
      },
    }
  ]
}
```



```

        "Type": "string"
    }
],
"Compressed": boolean,
"InputFormat": "string",
"Location": "string",
"NumberOfBuckets": number,
"OutputFormat": "string",
"Parameters": {
    "string" : "string"
},
"SchemaReference": {
    "SchemaId": {
        "RegistryName": "string",
        "SchemaArn": "string",
        "SchemaName": "string"
    },
    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
},
"SerdeInfo": {
    "Name": "string",
    "Parameters": {
        "string" : "string"
    },
    "SerializationLibrary": "string"
},
"SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
        "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
    {
        "Column": "string",
        "SortOrder": number
    }
],
"StoredAsSubDirectories": boolean
},
"TableName": "string",
"Values": [ "string" ]

```

```
    }  
  ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if the returned list of partitions does not include the last one.

Type: String

### Partitions

A list of requested partitions.

Type: Array of [Partition](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **FederationSourceException**

A federation source failed.

HTTP Status Code: 400

### **FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

## **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **InvalidStateException**

An error that indicates your data is in an invalid state.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNotReadyException**

A resource was not ready for a transaction.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetPlan

Gets code to perform a specified mapping.

## Request Syntax

```
{
  "AdditionalPlanOptionsMap": {
    "string" : "string"
  },
  "Language": "string",
  "Location": {
    "DynamoDB": [
      {
        "Name": "string",
        "Param": boolean,
        "Value": "string"
      }
    ],
    "Jdbc": [
      {
        "Name": "string",
        "Param": boolean,
        "Value": "string"
      }
    ],
    "S3": [
      {
        "Name": "string",
        "Param": boolean,
        "Value": "string"
      }
    ]
  },
  "Mapping": [
    {
      "SourcePath": "string",
      "SourceTable": "string",
      "SourceType": "string",
      "TargetPath": "string",
      "TargetTable": "string",
      "TargetType": "string"
    }
  ]
}
```

```
],
  "Sinks": [
    {
      "DatabaseName": "string",
      "TableName": "string"
    }
  ],
  "Source": {
    "DatabaseName": "string",
    "TableName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AdditionalPlanOptionsMap](#)

A map to hold additional optional key-value parameters.

Currently, these key-value pairs are supported:

- `inferSchema` — Specifies whether to set `inferSchema` to true or false for the default script generated by an AWS Glue job. For example, to set `inferSchema` to true, pass the following key value pair:

```
--additional-plan-options-map '{"inferSchema":"true"}
```

Type: String to string map

Required: No

### [Language](#)

The programming language of the code to perform the mapping.

Type: String

Valid Values: PYTHON | SCALA

Required: No

## Location

The parameters for the mapping.

Type: [Location](#) object

Required: No

## Mapping

The list of mappings from a source table to target tables.

Type: Array of [MappingEntry](#) objects

Required: Yes

## Sinks

The target tables.

Type: Array of [CatalogEntry](#) objects

Required: No

## Source

The source table.

Type: [CatalogEntry](#) object

Required: Yes

## Response Syntax

```
{
  "PythonScript": "string",
  "ScalaCode": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## PythonScript

A Python script to perform the mapping.

Type: String

## ScalaCode

The Scala code to perform the mapping.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)



- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetRegistry

Describes the specified registry in detail.

## Request Syntax

```
{
  "RegistryId": {
    "RegistryArn": "string",
    "RegistryName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### RegistryId

This is a wrapper structure that may contain the registry name and Amazon Resource Name (ARN).

Type: [RegistryId](#) object

Required: Yes

## Response Syntax

```
{
  "CreatedTime": "string",
  "Description": "string",
  "RegistryArn": "string",
  "RegistryName": "string",
  "Status": "string",
  "UpdatedTime": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedTime

The date and time the registry was created.

Type: String

### Description

A description of the registry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

### RegistryArn

The Amazon Resource Name (ARN) of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### RegistryName

The name of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

### Status

The status of the registry.

Type: String

Valid Values: AVAILABLE | DELETING

### UpdatedTime

The date and time the registry was updated.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetResourcePolicies

Retrieves the resource policies set on individual resources by AWS Resource Access Manager during cross-account permission grants. Also retrieves the Data Catalog resource policy.

If you enabled metadata encryption in Data Catalog settings, and you do not have permission on the AWS KMS key, the operation can't return the Data Catalog resource policy.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation request.

Type: String

Required: No

## Response Syntax

```
{
```

```
"GetResourcePoliciesResponseList": [  
  {  
    "CreateTime": number,  
    "PolicyHash": "string",  
    "PolicyInJson": "string",  
    "UpdateTime": number  
  }  
],  
"NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### GetResourcePoliciesResponseList

A list of the individual resource policies and the account-level resource policy.

Type: Array of [GluePolicy](#) objects

### NextToken

A continuation token, if the returned list does not contain the last resource policy available.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetResourcePolicy

Retrieves a specified resource policy.

## Request Syntax

```
{  
  "ResourceArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ResourceArn

The ARN of the AWS Glue resource for which to retrieve the resource policy. If not supplied, the Data Catalog resource policy is returned. Use `GetResourcePolicies` to view all existing resource policies. For more information see [Specifying AWS Glue Resource ARNs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

## Response Syntax

```
{  
  "CreateTime": number,  
  "PolicyHash": "string",  
  "PolicyInJson": "string",  
  "UpdateTime": number  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreateTime

The date and time at which the policy was created.

Type: Timestamp

### PolicyHash

Contains the hash value associated with this policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### PolicyInJson

Contains the requested policy document, in JSON format.

Type: String

Length Constraints: Minimum length of 2.

### UpdateTime

The date and time at which the policy was last updated.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSchema

Describes the specified schema in detail.

## Request Syntax

```
{
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### SchemaId

This is a wrapper structure to contain schema identity fields. The structure contains:

- `SchemaId$SchemaArn`: The Amazon Resource Name (ARN) of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.
- `SchemaId$SchemaName`: The name of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.

Type: [SchemaId](#) object

Required: Yes

## Response Syntax

```
{
  "Compatibility": "string",
  "CreatedTime": "string",
  "DataFormat": "string",
  "Description": "string",
```

```
"LatestSchemaVersion": number,
"NextSchemaVersion": number,
"RegistryArn": "string",
"RegistryName": "string",
"SchemaArn": "string",
"SchemaCheckpoint": number,
"SchemaName": "string",
"SchemaStatus": "string",
"UpdateTime": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Compatibility

The compatibility mode of the schema.

Type: String

Valid Values: NONE | DISABLED | BACKWARD | BACKWARD\_ALL | FORWARD | FORWARD\_ALL | FULL | FULL\_ALL

### CreatedTime

The date and time the schema was created.

Type: String

### DataFormat

The data format of the schema definition. Currently AVRO, JSON and PROTOBUF are supported.

Type: String

Valid Values: AVRO | JSON | PROTOBUF

### Description

A description of schema if specified when created

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

### LatestSchemaVersion

The latest version of the schema associated with the returned schema definition.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

### NextSchemaVersion

The next version of the schema associated with the returned schema definition.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

### RegistryArn

The Amazon Resource Name (ARN) of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### RegistryName

The name of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

### SchemaArn

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### SchemaCheckpoint

The version number of the checkpoint (the last time the compatibility mode was changed).

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

### SchemaName

The name of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

### SchemaStatus

The status of the schema.

Type: String

Valid Values: AVAILABLE | PENDING | DELETING

### UpdateTime

The date and time the schema was updated.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetSchemaByDefinition

Retrieves a schema by the SchemaDefinition. The schema definition is sent to the Schema Registry, canonicalized, and hashed. If the hash is matched within the scope of the SchemaName or ARN (or the default registry, if none is supplied), that schema's metadata is returned. Otherwise, a 404 or NotFound error is returned. Schema versions in Deleted statuses will not be included in the results.

## Request Syntax

```
{
  "SchemaDefinition": "string",
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### SchemaDefinition

The definition of the schema for which schema details are required.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170000.

Pattern: .\*\\S.\*

Required: Yes

### SchemaId

This is a wrapper structure to contain schema identity fields. The structure contains:

- SchemaId\$SchemaArn: The Amazon Resource Name (ARN) of the schema. One of SchemaArn or SchemaName has to be provided.

- `SchemaId$SchemaName`: The name of the schema. One of `SchemaArn` or `SchemaName` has to be provided.

Type: [SchemaId](#) object

Required: Yes

## Response Syntax

```
{
  "CreatedTime": "string",
  "DataFormat": "string",
  "SchemaArn": "string",
  "SchemaVersionId": "string",
  "Status": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedTime](#)

The date and time the schema was created.

Type: String

### [DataFormat](#)

The data format of the schema definition. Currently AVRO, JSON and PROTOBUF are supported.

Type: String

Valid Values: AVRO | JSON | PROTOBUF

### [SchemaArn](#)

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### SchemaVersionId

The schema ID of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

### Status

The status of the schema version.

Type: String

Valid Values: AVAILABLE | PENDING | FAILURE | DELETING

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSchemaVersion

Get the specified schema by its unique ID assigned when a version of the schema is created or registered. Schema versions in Deleted status will not be included in the results.

## Request Syntax

```
{
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### SchemaId

This is a wrapper structure to contain schema identity fields. The structure contains:

- `SchemaId$SchemaArn`: The Amazon Resource Name (ARN) of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.
- `SchemaId$SchemaName`: The name of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.

Type: [SchemaId](#) object

Required: No

### SchemaVersionId

The `SchemaVersionId` of the schema version. This field is required for fetching by schema ID. Either this or the `SchemaId` wrapper has to be provided.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### [SchemaVersionNumber](#)

The version number of the schema.

Type: [SchemaVersionNumber](#) object

Required: No

## Response Syntax

```
{
  "CreatedTime": "string",
  "DataFormat": "string",
  "SchemaArn": "string",
  "SchemaDefinition": "string",
  "SchemaVersionId": "string",
  "Status": "string",
  "VersionNumber": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedTime](#)

The date and time the schema version was created.

Type: String

### [DataFormat](#)

The data format of the schema definition. Currently AVRO, JSON and PROTOBUF are supported.

Type: String

Valid Values: AVRO | JSON | PROTOBUF

### SchemaArn

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

### SchemaDefinition

The schema definition for the schema ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170000.

Pattern: `.*\S.*`

### SchemaVersionId

The SchemaVersionId of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

### Status

The status of the schema version.

Type: String

Valid Values: AVAILABLE | PENDING | FAILURE | DELETING

### VersionNumber

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)



- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSchemaVersionsDiff

Fetches the schema version difference in the specified difference type between two stored schema versions in the Schema Registry.

This API allows you to compare two schema versions between two schema definitions under the same schema.

## Request Syntax

```
{
  "FirstSchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  },
  "SchemaDiffType": "string",
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SecondSchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FirstSchemaVersionNumber

The first of the two schema versions to be compared.

Type: [SchemaVersionNumber](#) object

Required: Yes

## SchemaDiffType

Refers to SYNTAX\_DIFF, which is the currently supported diff type.

Type: String

Valid Values: SYNTAX\_DIFF

Required: Yes

## Schemald

This is a wrapper structure to contain schema identity fields. The structure contains:

- Schemald\$SchemaArn: The Amazon Resource Name (ARN) of the schema. One of SchemaArn or SchemaName has to be provided.
- Schemald\$SchemaName: The name of the schema. One of SchemaArn or SchemaName has to be provided.

Type: [Schemald](#) object

Required: Yes

## SecondSchemaVersionNumber

The second of the two schema versions to be compared.

Type: [SchemaVersionNumber](#) object

Required: Yes

## Response Syntax

```
{
  "Diff": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## **Diff**

The difference between schemas as a string in JsonPatch format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 340000.

Pattern: .\*\\S.\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSecurityConfiguration

Retrieves a specified security configuration.

## Request Syntax

```
{
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the security configuration to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "SecurityConfiguration": {
    "CreatedTimeStamp": number,
    "EncryptionConfiguration": {
      "CloudWatchEncryption": {
        "CloudWatchEncryptionMode": "string",
        "KmsKeyArn": "string"
      },
      "JobBookmarksEncryption": {
        "JobBookmarksEncryptionMode": "string",
        "KmsKeyArn": "string"
      }
    }
  }
}
```

```
    },
    "S3Encryption": [
      {
        "KmsKeyArn": "string",
        "S3EncryptionMode": "string"
      }
    ]
  },
  "Name": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SecurityConfiguration

The requested security configuration.

Type: [SecurityConfiguration](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetSecurityConfigurations

Retrieves a list of all security configurations.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{  
  "NextToken": "string",  
  "SecurityConfigurations": [  
    {
```

```
"CreatedTimeStamp": number,
"EncryptionConfiguration": {
  "CloudWatchEncryption": {
    "CloudWatchEncryptionMode": "string",
    "KmsKeyArn": "string"
  },
  "JobBookmarksEncryption": {
    "JobBookmarksEncryptionMode": "string",
    "KmsKeyArn": "string"
  },
  "S3Encryption": [
    {
      "KmsKeyArn": "string",
      "S3EncryptionMode": "string"
    }
  ]
},
"Name": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if there are more security configurations to return.

Type: String

### SecurityConfigurations

A list of security configurations.

Type: Array of [SecurityConfiguration](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## Response Syntax

```
{
  "Session": {
    "Command": {
      "Name": "string",
      "PythonVersion": "string"
    },
    "CompletedOn": number,
    "Connections": {
      "Connections": [ "string" ]
    },
    "CreatedOn": number,
    "DefaultArguments": {
      "string": "string"
    },
    "Description": "string",
    "DPUSeconds": number,
    "ErrorMessage": "string",
    "ExecutionTime": number,
    "GlueVersion": "string",
    "Id": "string",
    "IdleTimeout": number,
    "MaxCapacity": number,
    "NumberOfWorkers": number,
    "Progress": number,
    "Role": "string",
    "SecurityConfiguration": "string",
    "Status": "string",
    "WorkerType": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Session

The session object is returned in the response.

Type: [Session](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetStatement

Retrieves the statement.

## Request Syntax

```
{  
  "Id": number,  
  "RequestOrigin": "string",  
  "SessionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Id

The Id of the statement.

Type: Integer

Required: Yes

### RequestOrigin

The origin of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\_\-A-Za-z0-9]+`

Required: No

### SessionId

The Session ID of the statement.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Statement": {
    "Code": "string",
    "CompletedOn": number,
    "Id": number,
    "Output": {
      "Data": {
        "TextPlain": "string"
      },
      "ErrorName": "string",
      "ErrorValue": "string",
      "ExecutionCount": number,
      "Status": "string",
      "Traceback": [ "string" ]
    },
    "Progress": number,
    "StartedOn": number,
    "State": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Statement

Returns the statement.

Type: Statement object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **IllegalSessionStateException**

The session is in an invalid state to perform a requested operation.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTable

Retrieves the Table definition in a Data Catalog for a specified table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
  "QueryAsOfTime": number,
  "TransactionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the table resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the database in the catalog in which the table resides. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Name

The name of the table for which to retrieve the definition. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### QueryAsOfTime

The time as of when to read the table contents. If not set, the most recent transaction commit time will be used. Cannot be specified along with `TransactionId`.

Type: Timestamp

Required: No

### TransactionId

The transaction ID at which to read the table contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\p{L}\p{N}\p{P}]*`

Required: No

## Response Syntax

```
{
  "Table": {
    "CatalogId": "string",
    "CreatedBy": "string",
    "CreateTime": number,
    "DatabaseName": "string",
    "Description": "string",
    "FederatedTable": {
```

```
    "ConnectionName": "string",
    "DatabaseIdentifier": "string",
    "Identifier": "string"
  },
  "IsMultiDialectView": boolean,
  "IsRegisteredWithLakeFormation": boolean,
  "LastAccessTime": number,
  "LastAnalyzedTime": number,
  "Name": "string",
  "Owner": "string",
  "Parameters": {
    "string" : "string"
  },
  "PartitionKeys": [
    {
      "Comment": "string",
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "Type": "string"
    }
  ],
  "Retention": number,
  "StorageDescriptor": {
    "AdditionalLocations": [ "string" ],
    "BucketColumns": [ "string" ],
    "Columns": [
      {
        "Comment": "string",
        "Name": "string",
        "Parameters": {
          "string" : "string"
        },
        "Type": "string"
      }
    ]
  },
  "Compressed": boolean,
  "InputFormat": "string",
  "Location": "string",
  "NumberOfBuckets": number,
  "OutputFormat": "string",
  "Parameters": {
    "string" : "string"
  }
```

```

    },
    "SchemaReference": {
      "SchemaId": {
        "RegistryName": "string",
        "SchemaArn": "string",
        "SchemaName": "string"
      },
      "SchemaVersionId": "string",
      "SchemaVersionNumber": number
    },
    "SerdeInfo": {
      "Name": "string",
      "Parameters": {
        "string": "string"
      },
      "SerializationLibrary": "string"
    },
    "SkewedInfo": {
      "SkewedColumnNames": [ "string" ],
      "SkewedColumnValueLocationMaps": {
        "string": "string"
      },
      "SkewedColumnValues": [ "string" ]
    },
    "SortColumns": [
      {
        "Column": "string",
        "SortOrder": number
      }
    ],
    "StoredAsSubDirectories": boolean
  },
  "TableType": "string",
  "TargetTable": {
    "CatalogId": "string",
    "DatabaseName": "string",
    "Name": "string",
    "Region": "string"
  },
  "UpdateTime": number,
  "VersionId": "string",
  "ViewDefinition": {
    "Definer": "string",
    "IsProtected": boolean,

```

```
    "Representations": [
      {
        "Dialect": "string",
        "DialectVersion": "string",
        "IsStale": boolean,
        "ViewExpandedText": "string",
        "ViewOriginalText": "string"
      }
    ],
    "SubObjects": [ "string" ]
  },
  "ViewExpandedText": "string",
  "ViewOriginalText": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Table

The `Table` object that defines the specified table.

Type: [Table](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **FederationSourceException**

A federation source failed.

HTTP Status Code: 400



## **FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

## **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNotReadyException**

A resource was not ready for a transaction.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTableOptimizer

Returns the configuration of all optimizers associated with a specified table.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "DatabaseName": "string",  
  "TableName": "string",  
  "Type": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Type

The type of table optimizer.

Type: String

Valid Values: `compaction`

Required: Yes

## Response Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "TableName": "string",
  "TableOptimizer": {
    "configuration": {
      "enabled": boolean,
      "roleArn": "string"
    },
    "lastRun": {
      "endTimeStamp": number,
      "error": "string",
      "eventType": "string",
      "metrics": {
        "JobDurationInHour": "string",
        "NumberOfBytesCompacted": "string",
        "NumberOfDpus": "string",
        "NumberOfFilesCompacted": "string"
      }
    }
  },
}
```

```
    "startTimeStamp": number
  },
  "type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CatalogId

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### DatabaseName

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### TableOptimizer

The optimizer associated with the specified table.

Type: [TableOptimizer](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Expression

A regular expression pattern. If present, only those tables whose names match the pattern are returned.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### MaxResults

The maximum number of tables to return in a single response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A continuation token, included if this is a continuation call.

Type: String

Required: No

### QueryAsOfTime

The time as of when to read the table contents. If not set, the most recent transaction commit time will be used. Cannot be specified along with `TransactionId`.

Type: Timestamp

Required: No

### TransactionId

The transaction ID at which to read the table contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\p{L}\p{N}\p{P}]*`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TableList": [
    {
      "CatalogId": "string",
      "CreatedBy": "string",
      "CreateTime": number,
      "DatabaseName": "string",
      "Description": "string",
      "FederatedTable": {
        "ConnectionName": "string",
        "DatabaseIdentifier": "string",
        "Identifier": "string"
      },
      "IsMultiDialectView": boolean,
      "IsRegisteredWithLakeFormation": boolean,
      "LastAccessTime": number,
      "LastAnalyzedTime": number,
      "Name": "string",
      "Owner": "string",
      "Parameters": {
        "string" : "string"
      },
      "PartitionKeys": [
        {
          "Comment": "string",
          "Name": "string",
          "Parameters": {
            "string" : "string"
          },
          "Type": "string"
        }
      ],
      "Retention": number,
      "StorageDescriptor": {
```

```
"AdditionalLocations": [ "string" ],
"BucketColumns": [ "string" ],
"Columns": [
  {
    "Comment": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "Type": "string"
  }
],
"Compressed": boolean,
"InputFormat": "string",
"Location": "string",
"NumberOfBuckets": number,
"OutputFormat": "string",
"Parameters": {
  "string" : "string"
},
"SchemaReference": {
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": number
},
"SerdeInfo": {
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "SerializationLibrary": "string"
},
"SkewedInfo": {
  "SkewedColumnNames": [ "string" ],
  "SkewedColumnValueLocationMaps": {
    "string" : "string"
  },
  "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
```

```

    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"TableType": "string",
"TargetTable": {
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
  "Region": "string"
},
"UpdateTime": number,
"VersionId": "string",
"ViewDefinition": {
  "Definer": "string",
  "IsProtected": boolean,
  "Representations": [
    {
      "Dialect": "string",
      "DialectVersion": "string",
      "IsStale": boolean,
      "ViewExpandedText": "string",
      "ViewOriginalText": "string"
    }
  ],
  "SubObjects": [ "string" ]
},
"ViewExpandedText": "string",
"ViewOriginalText": "string"
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

A continuation token, present if the current list segment is not the last.

Type: String

## TableList

A list of the requested Table objects.

Type: Array of [Table](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **FederationSourceException**

A federation source failed.

HTTP Status Code: 400

### **FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTableVersion

Retrieves a specified version of a table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "TableName": "string",
  "VersionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the tables reside. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The database in the catalog in which the table resides. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## TableName

The name of the table. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## VersionId

The ID value of the table version to be retrieved. A VersionID is a string representation of an integer. Each version is incremented by 1.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{
  "TableVersion": {
    "Table": {
      "CatalogId": "string",
      "CreatedBy": "string",
      "CreateTime": number,
      "DatabaseName": "string",
      "Description": "string",
      "FederatedTable": {
        "ConnectionName": "string",
        "DatabaseIdentifier": "string",
        "Identifier": "string"
      },
      "IsMultiDialectView": boolean,
      "IsRegisteredWithLakeFormation": boolean,
      "LastAccessTime": number,
      "LastAnalyzedTime": number,
    }
  }
}
```



```
"Name": "string",
"Owner": "string",
"Parameters": {
  "string" : "string"
},
"PartitionKeys": [
  {
    "Comment": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "Type": "string"
  }
],
"Retention": number,
"StorageDescriptor": {
  "AdditionalLocations": [ "string" ],
  "BucketColumns": [ "string" ],
  "Columns": [
    {
      "Comment": "string",
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "Type": "string"
    }
  ],
  "Compressed": boolean,
  "InputFormat": "string",
  "Location": "string",
  "NumberOfBuckets": number,
  "OutputFormat": "string",
  "Parameters": {
    "string" : "string"
  },
  "SchemaReference": {
    "SchemaId": {
      "RegistryName": "string",
      "SchemaArn": "string",
      "SchemaName": "string"
    },
    "SchemaVersionId": "string",
```

```
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"TableType": "string",
"TargetTable": {
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
  "Region": "string"
},
"UpdateTime": number,
"VersionId": "string",
"ViewDefinition": {
  "Definer": "string",
  "IsProtected": boolean,
  "Representations": [
    {
      "Dialect": "string",
      "DialectVersion": "string",
      "IsStale": boolean,
      "ViewExpandedText": "string",
      "ViewOriginalText": "string"
    }
  ]
}
```

```
    ],
    "SubObjects": [ "string" ]
  },
  "ViewExpandedText": "string",
  "ViewOriginalText": "string"
},
"VersionId": "string"
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TableVersion

The requested table version.

Type: [TableVersion](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTableVersions

Retrieves a list of strings that identify available versions of a specified table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the tables reside. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The database in the catalog in which the table resides. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`



```
    "DatabaseIdentifier": "string",
    "Identifier": "string"
  },
  "IsMultiDialectView": boolean,
  "IsRegisteredWithLakeFormation": boolean,
  "LastAccessTime": number,
  "LastAnalyzedTime": number,
  "Name": "string",
  "Owner": "string",
  "Parameters": {
    "string" : "string"
  },
  "PartitionKeys": [
    {
      "Comment": "string",
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "Type": "string"
    }
  ],
  "Retention": number,
  "StorageDescriptor": {
    "AdditionalLocations": [ "string" ],
    "BucketColumns": [ "string" ],
    "Columns": [
      {
        "Comment": "string",
        "Name": "string",
        "Parameters": {
          "string" : "string"
        },
        "Type": "string"
      }
    ],
    "Compressed": boolean,
    "InputFormat": "string",
    "Location": "string",
    "NumberOfBuckets": number,
    "OutputFormat": "string",
    "Parameters": {
      "string" : "string"
    }
  },
```

```
"SchemaReference": {
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": number
},
"SerdeInfo": {
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "SerializationLibrary": "string"
},
"SkewedInfo": {
  "SkewedColumnNames": [ "string" ],
  "SkewedColumnValueLocationMaps": {
    "string" : "string"
  },
  "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
  {
    "Column": "string",
    "SortOrder": number
  }
],
"StoredAsSubDirectories": boolean
},
"TableType": "string",
"TargetTable": {
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
  "Region": "string"
},
"UpdateTime": number,
"VersionId": "string",
"ViewDefinition": {
  "Definer": "string",
  "IsProtected": boolean,
  "Representations": [
```



```
        {
            "Dialect": "string",
            "DialectVersion": "string",
            "IsStale": boolean,
            "ViewExpandedText": "string",
            "ViewOriginalText": "string"
        }
    ],
    "SubObjects": [ "string" ]
},
"ViewExpandedText": "string",
"ViewOriginalText": "string"
},
"VersionId": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if the list of available versions does not include the last one.

Type: String

### TableVersions

A list of strings identifying available versions of the specified table.

Type: Array of [TableVersion](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTags

Retrieves a list of tags associated with a resource.

## Request Syntax

```
{  
  "ResourceArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ResourceArn

The Amazon Resource Name (ARN) of the resource for which to retrieve tags.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: Yes

## Response Syntax

```
{  
  "Tags": {  
    "string" : "string"  
  }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Tags

The requested tags.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTrigger

Retrieves the definition of a trigger.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the trigger to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Trigger": {  
    "Actions": [  
      {  
        "Arguments": {  
          "string": "string"  
        },  
        "CrawlerName": "string",  
        "JobName": "string",  
        "NotificationProperty": {
```

```

        "NotifyDelayAfter": number
    },
    "SecurityConfiguration": "string",
    "Timeout": number
}
],
"Description": "string",
"EventBatchingCondition": {
    "BatchSize": number,
    "BatchWindow": number
},
"Id": "string",
"Name": "string",
"Predicate": {
    "Conditions": [
        {
            "CrawlerName": "string",
            "CrawlState": "string",
            "JobName": "string",
            "LogicalOperator": "string",
            "State": "string"
        }
    ],
    "Logical": "string"
},
"Schedule": "string",
"State": "string",
"Type": "string",
"WorkflowName": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Trigger

The requested trigger definition.

Type: [Trigger](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)



- [AWS SDK for Ruby V3](#)

# GetTriggers

Gets all the triggers associated with a job.

## Request Syntax

```
{
  "DependentJobName": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DependentJobName

The name of the job to retrieve triggers for. The trigger that can start this job is returned, and if there is no such trigger, all triggers are returned.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### MaxResults

The maximum size of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Triggers": [
    {
      "Actions": [
        {
          "Arguments": {
            "string": "string"
          },
          "CrawlerName": "string",
          "JobName": "string",
          "NotificationProperty": {
            "NotifyDelayAfter": number
          },
          "SecurityConfiguration": "string",
          "Timeout": number
        }
      ],
      "Description": "string",
      "EventBatchingCondition": {
        "BatchSize": number,
        "BatchWindow": number
      },
      "Id": "string",
      "Name": "string",
      "Predicate": {
        "Conditions": [
          {
            "CrawlerName": "string",
            "CrawlState": "string",
            "JobName": "string",
            "LogicalOperator": "string",
            "State": "string"
          }
        ]
      },
      "Logical": "string"
    }
  ],
}
```

```
    "Schedule": "string",
    "State": "string",
    "Type": "string",
    "WorkflowName": "string"
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken](#)

A continuation token, if not all the requested triggers have yet been returned.

Type: String

### [Triggers](#)

A list of triggers for the specified job.

Type: Array of [Trigger](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetUnfilteredPartitionMetadata

Retrieves partition metadata from the Data Catalog that contains unfiltered metadata.

For IAM authorization, the public IAM action associated with this API is `glue:GetPartition`.

## Request Syntax

```
{
  "AuditContext": {
    "AdditionalAuditContext": "string",
    "AllColumnsRequested": boolean,
    "RequestedColumns": [ "string" ]
  },
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionValues": [ "string" ],
  "QuerySessionContext": {
    "AdditionalContext": {
      "string" : "string"
    },
    "ClusterId": "string",
    "QueryAuthorizationId": "string",
    "QueryId": "string",
    "QueryStartTime": number
  },
  "Region": "string",
  "SupportedPermissionTypes": [ "string" ],
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AuditContext

A structure containing Lake Formation audit context information.

Type: [AuditContext](#) object

Required: No

### CatalogId

The catalog ID where the partition resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

(Required) Specifies the name of a database that contains the partition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionValues

(Required) A list of partition key values.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

### QuerySessionContext

A structure used as a protocol between query engines and Lake Formation or AWS Glue. Contains both a Lake Formation generated authorization identifier and information from the request's authorization context.

Type: [QuerySessionContext](#) object

Required: No

### Region

Specified only if the base tables belong to a different AWS Region.





```
"StorageDescriptor": {
  "AdditionalLocations": [ "string" ],
  "BucketColumns": [ "string" ],
  "Columns": [
    {
      "Comment": "string",
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "Type": "string"
    }
  ],
  "Compressed": boolean,
  "InputFormat": "string",
  "Location": "string",
  "NumberOfBuckets": number,
  "OutputFormat": "string",
  "Parameters": {
    "string" : "string"
  },
  "SchemaReference": {
    "SchemaId": {
      "RegistryName": "string",
      "SchemaArn": "string",
      "SchemaName": "string"
    },
    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
}
```



**EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

**FederationSourceException**

A federation source failed.

HTTP Status Code: 400

**FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

**GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

**InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

**InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

**OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

**PermissionTypeMismatchException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetUnfilteredPartitionsMetadata

Retrieves partition metadata from the Data Catalog that contains unfiltered metadata.

For IAM authorization, the public IAM action associated with this API is `glue:GetPartitions`.

## Request Syntax

```
{
  "AuditContext": {
    "AdditionalAuditContext": "string",
    "AllColumnsRequested": boolean,
    "RequestedColumns": [ "string" ]
  },
  "CatalogId": "string",
  "DatabaseName": "string",
  "Expression": "string",
  "MaxResults": number,
  "NextToken": "string",
  "QuerySessionContext": {
    "AdditionalContext": {
      "string" : "string"
    },
    "ClusterId": "string",
    "QueryAuthorizationId": "string",
    "QueryId": "string",
    "QueryStartTime": number
  },
  "Region": "string",
  "Segment": {
    "SegmentNumber": number,
    "TotalSegments": number
  },
  "SupportedPermissionTypes": [ "string" ],
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## AuditContext

A structure containing Lake Formation audit context information.

Type: [AuditContext](#) object

Required: No

## CatalogId

The ID of the Data Catalog where the partitions in question reside. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Expression

An expression that filters the partitions to be returned.

The expression uses SQL syntax similar to the SQL WHERE filter clause. The SQL statement parser [JSQLParser](#) parses the expression.

*Operators:* The following are the operators that you can use in the Expression API call:

=

Checks whether the values of the two operands are equal; if yes, then the condition becomes true.

Example: Assume 'variable a' holds 10 and 'variable b' holds 20.

(a = b) is not true.

< >

Checks whether the values of two operands are equal; if the values are not equal, then the condition becomes true.

Example: (a < > b) is true.

>

Checks whether the value of the left operand is greater than the value of the right operand; if yes, then the condition becomes true.

Example: (a > b) is not true.

<

Checks whether the value of the left operand is less than the value of the right operand; if yes, then the condition becomes true.

Example: (a < b) is true.

>=

Checks whether the value of the left operand is greater than or equal to the value of the right operand; if yes, then the condition becomes true.

Example: (a >= b) is not true.

<=

Checks whether the value of the left operand is less than or equal to the value of the right operand; if yes, then the condition becomes true.

Example: (a <= b) is true.

AND, OR, IN, BETWEEN, LIKE, NOT, IS NULL

Logical operators.

*Supported Partition Key Types:* The following are the supported partition keys.

- `string`

- date
- timestamp
- int
- bigint
- long
- tinyint
- smallint
- decimal

If an type is encountered that is not valid, an exception is thrown.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### MaxResults

The maximum number of partitions to return in a single response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is not the first call to retrieve these partitions.

Type: String

Required: No

### QuerySessionContext

A structure used as a protocol between query engines and Lake Formation or AWS Glue. Contains both a Lake Formation generated authorization identifier and information from the request's authorization context.



Type: [QuerySessionContext](#) object

Required: No

### Region

Specified only if the base tables belong to a different AWS Region.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Segment

The segment of the table's partitions to scan in this request.

Type: [Segment](#) object

Required: No

### SupportedPermissionTypes

A list of supported permission types.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 255 items.

Valid Values: COLUMN\_PERMISSION | CELL\_FILTER\_PERMISSION | NESTED\_PERMISSION  
| NESTED\_CELL\_PERMISSION

Required: Yes

### TableName

The name of the table that contains the partition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "UnfilteredPartitions": [
    {
      "AuthorizedColumns": [ "string" ],
      "IsRegisteredWithLakeFormation": boolean,
      "Partition": {
        "CatalogId": "string",
        "CreationTime": number,
        "DatabaseName": "string",
        "LastAccessTime": number,
        "LastAnalyzedTime": number,
        "Parameters": {
          "string" : "string"
        },
        "StorageDescriptor": {
          "AdditionalLocations": [ "string" ],
          "BucketColumns": [ "string" ],
          "Columns": [
            {
              "Comment": "string",
              "Name": "string",
              "Parameters": {
                "string" : "string"
              },
              "Type": "string"
            }
          ],
          "Compressed": boolean,
          "InputFormat": "string",
          "Location": "string",
          "NumberOfBuckets": number,
          "OutputFormat": "string",
          "Parameters": {
            "string" : "string"
          },
          "SchemaReference": {
            "SchemaId": {
              "RegistryName": "string",
              "SchemaArn": "string",
              "SchemaName": "string"
            }
          }
        }
      }
    }
  ]
}
```

```

    },
    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"TableName": "string",
"Values": [ "string" ]
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if the returned list of partitions does not include the last one.

Type: String

## UnfilteredPartitions

A list of requested partitions.

Type: Array of [UnfilteredPartition](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### FederationSourceException

A federation source failed.

HTTP Status Code: 400

### FederationSourceRetryableException

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

### GlueEncryptionException

An encryption operation failed.

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## PermissionTypeMismatchException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetUnfilteredTableMetadata

Allows a third-party analytical engine to retrieve unfiltered table metadata from the Data Catalog.

For IAM authorization, the public IAM action associated with this API is `glue:GetTable`.

## Request Syntax

```
{
  "AuditContext": {
    "AdditionalAuditContext": "string",
    "AllColumnsRequested": boolean,
    "RequestedColumns": [ "string" ]
  },
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
  "ParentResourceArn": "string",
  "Permissions": [ "string" ],
  "QuerySessionContext": {
    "AdditionalContext": {
      "string" : "string"
    },
    "ClusterId": "string",
    "QueryAuthorizationId": "string",
    "QueryId": "string",
    "QueryStartTime": number
  },
  "Region": "string",
  "RootResourceArn": "string",
  "SupportedDialect": {
    "Dialect": "string",
    "DialectVersion": "string"
  },
  "SupportedPermissionTypes": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## AuditContext

A structure containing Lake Formation audit context information.

Type: [AuditContext](#) object

Required: No

## CatalogId

The catalog ID where the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## DatabaseName

(Required) Specifies the name of a database that contains the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Name

(Required) Specifies the name of a table for which you are requesting metadata.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## ParentResourceArn

The resource ARN of the view.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## Permissions

The Lake Formation data permissions of the caller on the table. Used to authorize the call when no view context is found.

Type: Array of strings

Valid Values: ALL | SELECT | ALTER | DROP | DELETE | INSERT |  
CREATE\_DATABASE | CREATE\_TABLE | DATA\_LOCATION\_ACCESS

Required: No

## QuerySessionContext

A structure used as a protocol between query engines and Lake Formation or AWS Glue. Contains both a Lake Formation generated authorization identifier and information from the request's authorization context.

Type: [QuerySessionContext](#) object

Required: No

## Region

Specified only if the base tables belong to a different AWS Region.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## RootResourceArn

The resource ARN of the root view in a chain of nested views.



Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

### SupportedDialect

A structure specifying the dialect and dialect version used by the query engine.

Type: [SupportedDialect](#) object

Required: No

### SupportedPermissionTypes

Indicates the level of filtering a third-party analytical engine is capable of enforcing when calling the `GetUnfilteredTableMetadata` API operation. Accepted values are:

- `COLUMN_PERMISSION` - Column permissions ensure that users can access only specific columns in the table. If there are particular columns contain sensitive data, data lake administrators can define column filters that exclude access to specific columns.
- `CELL_FILTER_PERMISSION` - Cell-level filtering combines column filtering (include or exclude columns) and row filter expressions to restrict access to individual elements in the table.
- `NESTED_PERMISSION` - Nested permissions combines cell-level filtering and nested column filtering to restrict access to columns and/or nested columns in specific rows based on row filter expressions.
- `NESTED_CELL_PERMISSION` - Nested cell permissions combines nested permission with nested cell-level filtering. This allows different subsets of nested columns to be restricted based on an array of row filter expressions.

Note: Each of these permission types follows a hierarchical order where each subsequent permission type includes all permission of the previous type.

Important: If you provide a supported permission type that doesn't match the user's level of permissions on the table, then Lake Formation raises an exception. For example, if the third-party engine calling the `GetUnfilteredTableMetadata` operation can enforce only column-level filtering, and the user has nested cell filtering applied on the table, Lake Formation throws an exception, and will not return unfiltered table metadata and data access credentials.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 255 items.

Valid Values: COLUMN\_PERMISSION | CELL\_FILTER\_PERMISSION | NESTED\_PERMISSION  
| NESTED\_CELL\_PERMISSION

Required: Yes

## Response Syntax

```
{
  "AuthorizedColumns": [ "string" ],
  "CellFilters": [
    {
      "ColumnName": "string",
      "RowFilterExpression": "string"
    }
  ],
  "IsMultiDialectView": boolean,
  "IsProtected": boolean,
  "IsRegisteredWithLakeFormation": boolean,
  "Permissions": [ "string" ],
  "QueryAuthorizationId": "string",
  "ResourceArn": "string",
  "Table": {
    "CatalogId": "string",
    "CreatedBy": "string",
    "CreateTime": number,
    "DatabaseName": "string",
    "Description": "string",
    "FederatedTable": {
      "ConnectionName": "string",
      "DatabaseIdentifier": "string",
      "Identifier": "string"
    },
    "IsMultiDialectView": boolean,
    "IsRegisteredWithLakeFormation": boolean,
    "LastAccessTime": number,
    "LastAnalyzedTime": number,
    "Name": "string",
    "Owner": "string",
    "Parameters": {
      "string" : "string"
    }
  }
}
```

```
},
  "PartitionKeys": [
    {
      "Comment": "string",
      "Name": "string",
      "Parameters": {
        "string": "string"
      },
      "Type": "string"
    }
  ],
  "Retention": number,
  "StorageDescriptor": {
    "AdditionalLocations": [ "string" ],
    "BucketColumns": [ "string" ],
    "Columns": [
      {
        "Comment": "string",
        "Name": "string",
        "Parameters": {
          "string": "string"
        },
        "Type": "string"
      }
    ],
    "Compressed": boolean,
    "InputFormat": "string",
    "Location": "string",
    "NumberOfBuckets": number,
    "OutputFormat": "string",
    "Parameters": {
      "string": "string"
    }
  },
  "SchemaReference": {
    "SchemaId": {
      "RegistryName": "string",
      "SchemaArn": "string",
      "SchemaName": "string"
    },
    "SchemaVersionId": "string",
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
```

```
    "Parameters": {
      "string": "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string": "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"TableType": "string",
"TargetTable": {
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
  "Region": "string"
},
"UpdateTime": number,
"VersionId": "string",
"ViewDefinition": {
  "Definer": "string",
  "IsProtected": boolean,
  "Representations": [
    {
      "Dialect": "string",
      "DialectVersion": "string",
      "IsStale": boolean,
      "ViewExpandedText": "string",
      "ViewOriginalText": "string"
    }
  ]
},
"SubObjects": [ "string" ]
},
"ViewExpandedText": "string",
```

```
    "ViewOriginalText": "string"  
  }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AuthorizedColumns

A list of column names that the user has been granted access to.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### CellFilters

A list of column row filters.

Type: Array of [ColumnRowFilter](#) objects

### IsMultiDialectView

Specifies whether the view supports the SQL dialects of one or more different query engines and can therefore be read by those engines.

Type: Boolean

### IsProtected

A flag that instructs the engine not to push user-provided operations into the logical plan of the view during query planning. However, if set this flag does not guarantee that the engine will comply. Refer to the engine's documentation to understand the guarantees provided, if any.

Type: Boolean

### IsRegisteredWithLakeFormation

A Boolean value that indicates whether the partition location is registered with Lake Formation.

Type: Boolean

### Permissions

The Lake Formation data permissions of the caller on the table. Used to authorize the call when no view context is found.

Type: Array of strings

Valid Values: ALL | SELECT | ALTER | DROP | DELETE | INSERT |  
CREATE\_DATABASE | CREATE\_TABLE | DATA\_LOCATION\_ACCESS

### QueryAuthorizationId

A cryptographically generated query identifier generated by AWS Glue or Lake Formation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### ResourceArn

The resource ARN of the parent resource extracted from the request.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

### Table

A Table object containing the table metadata.

Type: [Table](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **FederationSourceException**

A federation source failed.

HTTP Status Code: 400

### **FederationSourceRetryableException**

A federation source failed, but the operation may be retried.

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **PermissionTypeMismatchException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)





## FunctionName

The name of the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "UserDefinedFunction": {
    "CatalogId": "string",
    "ClassName": "string",
    "CreateTime": number,
    "DatabaseName": "string",
    "FunctionName": "string",
    "OwnerName": "string",
    "OwnerType": "string",
    "ResourceUri": [
      {
        "ResourceType": "string",
        "Uri": "string"
      }
    ]
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### UserDefinedFunction

The requested function definition.

Type: [UserDefinedFunction](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### GlueEncryptionException

An encryption operation failed.

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetUserDefinedFunctions

Retrieves multiple function definitions from the Data Catalog.

## Request Syntax

```
{  
  "CatalogId": "string",  
  "DatabaseName": "string",  
  "MaxResults": number,  
  "NextToken": "string",  
  "Pattern": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the functions to be retrieved are located. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database where the functions are located. If none is provided, functions from all the databases across the catalog will be returned.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### MaxResults

The maximum number of functions to return in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

### Pattern

An optional function-name pattern string that filters the function definitions returned.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "UserDefinedFunctions": [
    {
      "CatalogId": "string",
      "ClassName": "string",
      "CreateTime": number,
      "DatabaseName": "string",
      "FunctionName": "string",
      "OwnerName": "string",
    }
  ]
}
```

```
    "OwnerType": "string",
    "ResourceUris": [
      {
        "ResourceType": "string",
        "Uri": "string"
      }
    ]
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if the list of functions returned does not include the last requested function.

Type: String

### UserDefinedFunctions

A list of requested function definitions.

Type: Array of [UserDefinedFunction](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetWorkflow

Retrieves resource metadata for a workflow.

## Request Syntax

```
{
  "IncludeGraph": boolean,
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### IncludeGraph

Specifies whether to include a graph when returning the workflow resource metadata.

Type: Boolean

Required: No

### Name

The name of the workflow to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Workflow": {
    "BlueprintDetails": {
      "BlueprintName": "string",

```

```
    "RunId": "string"
  },
  "CreatedOn": number,
  "DefaultRunProperties": {
    "string": "string"
  },
  "Description": "string",
  "Graph": {
    "Edges": [
      {
        "DestinationId": "string",
        "SourceId": "string"
      }
    ],
    "Nodes": [
      {
        "CrawlerDetails": {
          "Crawls": [
            {
              "CompletedOn": number,
              "ErrorMessage": "string",
              "LogGroup": "string",
              "LogStream": "string",
              "StartedOn": number,
              "State": "string"
            }
          ]
        },
        "JobDetails": {
          "JobRuns": [
            {
              "AllocatedCapacity": number,
              "Arguments": {
                "string": "string"
              },
              "Attempt": number,
              "CompletedOn": number,
              "DPUSeconds": number,
              "ErrorMessage": "string",
              "ExecutionClass": "string",
              "ExecutionTime": number,
              "GlueVersion": "string",
              "Id": "string",
              "JobName": "string",
```

```

    "JobRunState": "string",
    "LastModifiedOn": number,
    "LogGroupName": "string",
    "MaxCapacity": number,
    "NotificationProperty": {
      "NotifyDelayAfter": number
    },
    "NumberOfWorkers": number,
    "PredecessorRuns": [
      {
        "JobName": "string",
        "RunId": "string"
      }
    ],
    "PreviousRunId": "string",
    "SecurityConfiguration": "string",
    "StartedOn": number,
    "Timeout": number,
    "TriggerName": "string",
    "WorkerType": "string"
  }
]
},
"Name": "string",
"TriggerDetails": {
  "Trigger": {
    "Actions": [
      {
        "Arguments": {
          "string": "string"
        },
        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
          "NotifyDelayAfter": number
        },
        "SecurityConfiguration": "string",
        "Timeout": number
      }
    ],
    "Description": "string",
    "EventBatchingCondition": {
      "BatchSize": number,
      "BatchWindow": number
    }
  }
}

```

```

    },
    "Id": "string",
    "Name": "string",
    "Predicate": {
      "Conditions": [
        {
          "CrawlerName": "string",
          "CrawlState": "string",
          "JobName": "string",
          "LogicalOperator": "string",
          "State": "string"
        }
      ],
      "Logical": "string"
    },
    "Schedule": "string",
    "State": "string",
    "Type": "string",
    "WorkflowName": "string"
  }
},
"Type": "string",
"UniqueId": "string"
}
]
},
"LastModifiedOn": number,
"LastRun": {
  "CompletedOn": number,
  "ErrorMessage": "string",
  "Graph": {
    "Edges": [
      {
        "DestinationId": "string",
        "SourceId": "string"
      }
    ],
    "Nodes": [
      {
        "CrawlerDetails": {
          "Crawls": [
            {
              "CompletedOn": number,
              "ErrorMessage": "string",

```

```
        "LogGroup": "string",
        "LogStream": "string",
        "StartedOn": number,
        "State": "string"
    }
]
},
"JobDetails": {
    "JobRuns": [
        {
            "AllocatedCapacity": number,
            "Arguments": {
                "string": "string"
            },
            "Attempt": number,
            "CompletedOn": number,
            "DPUSecods": number,
            "ErrorMessage": "string",
            "ExecutionClass": "string",
            "ExecutionTime": number,
            "GlueVersion": "string",
            "Id": "string",
            "JobName": "string",
            "JobRunState": "string",
            "LastModifiedOn": number,
            "LogGroupName": "string",
            "MaxCapacity": number,
            "NotificationProperty": {
                "NotifyDelayAfter": number
            },
            "NumberOfWorkers": number,
            "PredecessorRuns": [
                {
                    "JobName": "string",
                    "RunId": "string"
                }
            ],
            "PreviousRunId": "string",
            "SecurityConfiguration": "string",
            "StartedOn": number,
            "Timeout": number,
            "TriggerName": "string",
            "WorkerType": "string"
        }
    ]
}
```

```

    ]
  },
  "Name": "string",
  "TriggerDetails": {
    "Trigger": {
      "Actions": [
        {
          "Arguments": {
            "string": "string"
          },
          "CrawlerName": "string",
          "JobName": "string",
          "NotificationProperty": {
            "NotifyDelayAfter": number
          },
          "SecurityConfiguration": "string",
          "Timeout": number
        }
      ],
      "Description": "string",
      "EventBatchingCondition": {
        "BatchSize": number,
        "BatchWindow": number
      },
      "Id": "string",
      "Name": "string",
      "Predicate": {
        "Conditions": [
          {
            "CrawlerName": "string",
            "CrawlState": "string",
            "JobName": "string",
            "LogicalOperator": "string",
            "State": "string"
          }
        ],
        "Logical": "string"
      },
      "Schedule": "string",
      "State": "string",
      "Type": "string",
      "WorkflowName": "string"
    }
  },
},

```

```

        "Type": "string",
        "UniqueId": "string"
    }
]
},
"Name": "string",
"PreviousRunId": "string",
"StartedOn": number,
"StartingEventBatchCondition": {
    "BatchSize": number,
    "BatchWindow": number
},
"Statistics": {
    "ErroredActions": number,
    "FailedActions": number,
    "RunningActions": number,
    "StoppedActions": number,
    "SucceededActions": number,
    "TimeoutActions": number,
    "TotalActions": number,
    "WaitingActions": number
},
"Status": "string",
"WorkflowRunId": "string",
"WorkflowRunProperties": {
    "string" : "string"
}
},
"MaxConcurrentRuns": number,
"Name": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Workflow

The resource metadata for the workflow.

Type: [Workflow](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)



- [AWS SDK for Ruby V3](#)

# GetWorkflowRun

Retrieves the metadata for a given workflow run.

## Request Syntax

```
{  
  "IncludeGraph": boolean,  
  "Name": "string",  
  "RunId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### IncludeGraph

Specifies whether to include the workflow graph in response or not.

Type: Boolean

Required: No

### Name

Name of the workflow being run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RunId

The ID of the workflow run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.



```
    "ExecutionTime": number,
    "GlueVersion": "string",
    "Id": "string",
    "JobName": "string",
    "JobRunState": "string",
    "LastModifiedOn": number,
    "LogGroupName": "string",
    "MaxCapacity": number,
    "NotificationProperty": {
      "NotifyDelayAfter": number
    },
    "NumberOfWorkers": number,
    "PredecessorRuns": [
      {
        "JobName": "string",
        "RunId": "string"
      }
    ],
    "PreviousRunId": "string",
    "SecurityConfiguration": "string",
    "StartedOn": number,
    "Timeout": number,
    "TriggerName": "string",
    "WorkerType": "string"
  }
]
},
"Name": "string",
"TriggerDetails": {
  "Trigger": {
    "Actions": [
      {
        "Arguments": {
          "string": "string"
        },
        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
          "NotifyDelayAfter": number
        },
        "SecurityConfiguration": "string",
        "Timeout": number
      }
    ]
  },

```

```
    "Description": "string",
    "EventBatchingCondition": {
      "BatchSize": number,
      "BatchWindow": number
    },
    "Id": "string",
    "Name": "string",
    "Predicate": {
      "Conditions": [
        {
          "CrawlerName": "string",
          "CrawlState": "string",
          "JobName": "string",
          "LogicalOperator": "string",
          "State": "string"
        }
      ],
      "Logical": "string"
    },
    "Schedule": "string",
    "State": "string",
    "Type": "string",
    "WorkflowName": "string"
  }
},
"Type": "string",
"UniqueId": "string"
}
]
},
"Name": "string",
"PreviousRunId": "string",
"StartedOn": number,
"StartingEventBatchCondition": {
  "BatchSize": number,
  "BatchWindow": number
},
"Statistics": {
  "ErroredActions": number,
  "FailedActions": number,
  "RunningActions": number,
  "StoppedActions": number,
  "SucceededActions": number,
  "TimeoutActions": number,
```

```
    "TotalActions": number,
    "WaitingActions": number
  },
  "Status": "string",
  "WorkflowRunId": "string",
  "WorkflowRunProperties": {
    "string" : "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Run

The requested workflow run metadata.

Type: [WorkflowRun](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetWorkflowRunProperties

Retrieves the workflow run properties which were set during the run.

## Request Syntax

```
{  
  "Name": "string",  
  "RunId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

Name of the workflow which was run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RunId

The ID of the workflow run whose run properties should be returned.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes



## Response Syntax

```
{
  "RunProperties": {
    "string" : "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RunProperties

The workflow run properties which were set during the specified run.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetWorkflowRuns

Retrieves metadata for all runs of a given workflow.

## Request Syntax

```
{  
  "IncludeGraph": boolean,  
  "MaxResults": number,  
  "Name": "string",  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### IncludeGraph

Specifies whether to include the workflow graph in response or not.

Type: Boolean

Required: No

### MaxResults

The maximum number of workflow runs to be included in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### Name

Name of the workflow whose metadata of runs should be returned.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.



```

    "AllocatedCapacity": number,
    "Arguments": {
      "string" : "string"
    },
    "Attempt": number,
    "CompletedOn": number,
    "DPUSecods": number,
    "ErrorMessage": "string",
    "ExecutionClass": "string",
    "ExecutionTime": number,
    "GlueVersion": "string",
    "Id": "string",
    "JobName": "string",
    "JobRunState": "string",
    "LastModifiedOn": number,
    "LogGroupName": "string",
    "MaxCapacity": number,
    "NotificationProperty": {
      "NotifyDelayAfter": number
    },
    "NumberOfWorkers": number,
    "PredecessorRuns": [
      {
        "JobName": "string",
        "RunId": "string"
      }
    ],
    "PreviousRunId": "string",
    "SecurityConfiguration": "string",
    "StartedOn": number,
    "Timeout": number,
    "TriggerName": "string",
    "WorkerType": "string"
  }
]
},
"Name": "string",
"TriggerDetails": {
  "Trigger": {
    "Actions": [
      {
        "Arguments": {
          "string" : "string"
        },

```

```

        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
            "NotifyDelayAfter": number
        },
        "SecurityConfiguration": "string",
        "Timeout": number
    }
],
"Description": "string",
"EventBatchingCondition": {
    "BatchSize": number,
    "BatchWindow": number
},
"Id": "string",
"Name": "string",
"Predicate": {
    "Conditions": [
        {
            "CrawlerName": "string",
            "CrawlState": "string",
            "JobName": "string",
            "LogicalOperator": "string",
            "State": "string"
        }
    ],
    "Logical": "string"
},
"Schedule": "string",
"State": "string",
"Type": "string",
"WorkflowName": "string"
}
},
"Type": "string",
"UniqueId": "string"
}
]
},
"Name": "string",
"PreviousRunId": "string",
"StartedOn": number,
"StartingEventBatchCondition": {
    "BatchSize": number,

```

```
    "BatchWindow": number
  },
  "Statistics": {
    "ErroredActions": number,
    "FailedActions": number,
    "RunningActions": number,
    "StoppedActions": number,
    "SucceededActions": number,
    "TimeoutActions": number,
    "TotalActions": number,
    "WaitingActions": number
  },
  "Status": "string",
  "WorkflowRunId": "string",
  "WorkflowRunProperties": {
    "string" : "string"
  }
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if not all requested workflow runs have been returned.

Type: String

### Runs

A list of workflow run metadata objects.

Type: Array of [WorkflowRun](#) objects

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ImportCatalogToGlue

Imports an existing Amazon Athena Data Catalog to AWS Glue.

## Request Syntax

```
{  
  "CatalogId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the catalog to import. Currently, this should be the AWS account ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListBlueprints

Lists all the blueprint names in an account.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

### NextToken

A continuation token, if this is a continuation request.

Type: String

Required: No

### Tags

Filters the list by an AWS resource tag.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "Blueprints": [ "string" ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Blueprints

List of names of blueprints in the account.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

### NextToken

A continuation token, if not all blueprint names have been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListColumnStatisticsTaskRuns

List all task runs for a particular account.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum size of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{  
  "ColumnStatisticsTaskRunIds": [ "string" ],  
  "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ColumnStatisticsTaskRunIds

A list of column statistics task run IDs.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### NextToken

A continuation token, if not all task run IDs have yet been returned.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListCrawlers

Retrieves the names of all crawler resources in this AWS account, or the resources with the specified tag. This operation allows you to see which resources are available in your account, and their names.

This operation takes the optional `Tags` field, which you can use as a filter on the response so that tagged resources can be retrieved as a group. If you choose to use tags filtering, only resources with the tag are retrieved.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### [NextToken](#)

A continuation token, if this is a continuation request.

Type: String

Required: No

## Tags

Specifies to return only these tagged resources.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "CrawlerNames": [ "string" ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CrawlerNames

The names of all crawlers in the account, or the crawlers with the specified tags.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### NextToken

A continuation token, if the returned list does not contain the last metric available.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListCrawls

Returns all the crawls of a specified crawler. Returns only the crawls that have occurred since the launch date of the crawler history feature, and only retains up to 12 months of crawls. Older crawls will not be returned.

You may use this API to:

- Retrieve all the crawls of a specified crawler.
- Retrieve all the crawls of a specified crawler within a limited count.
- Retrieve all the crawls of a specified crawler in a specific time range.
- Retrieve all the crawls of a specified crawler with a particular state, crawl ID, or DPU hour value.

## Request Syntax

```
{
  "CrawlerName": "string",
  "Filters": [
    {
      "FieldName": "string",
      "FieldValue": "string",
      "FilterOperator": "string"
    }
  ],
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CrawlerName

The name of the crawler whose runs you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Filters

Filters the crawls by the criteria you specify in a list of `CrawlsFilter` objects.

Type: Array of [CrawlsFilter](#) objects

Required: No

### MaxResults

The maximum number of results to return. The default is 20, and maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{
  "Crawls": [
    {
      "CrawlId": "string",
      "DPUHour": number,
      "EndTime": number,
      "ErrorMessage": "string",
      "LogGroup": "string",
      "LogStream": "string",
      "MessagePrefix": "string",
```

```
    "StartTime": number,
    "State": "string",
    "Summary": "string"
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Crawls

A list of `CrawlerHistory` objects representing the crawl runs that meet your criteria.

Type: Array of [CrawlerHistory](#) objects

### NextToken

A continuation token for paginating the returned list of tokens, returned if the current segment of the list is not the last.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListCustomEntityTypes

Lists all the custom patterns that have been created.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A paginated token to offset the results.

Type: String

Required: No

### Tags

A list of key-value pair tags.

Type: String to string map



Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "CustomEntityTypes": [
    {
      "ContextWords": [ "string" ],
      "Name": "string",
      "RegexString": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CustomEntityTypes

A list of CustomEntityType objects representing custom patterns.

Type: Array of [CustomEntityType](#) objects

### NextToken

A pagination token, if more results are available.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDataQualityResults

Returns all data quality execution results for your account.

## Request Syntax

```
{
  "Filter": {
    "DataSource": {
      "GlueTable": {
        "AdditionalOptions": {
          "string" : "string"
        },
        "CatalogId": "string",
        "ConnectionName": "string",
        "DatabaseName": "string",
        "TableName": "string"
      }
    },
    "JobName": "string",
    "JobRunId": "string",
    "StartedAfter": number,
    "StartedBefore": number
  },
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Filter

The filter criteria.

Type: [DataQualityResultFilterCriteria](#) object

Required: No

## MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## NextToken

A paginated token to offset the results.

Type: String

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Results": [
    {
      "DataSource": {
        "GlueTable": {
          "AdditionalOptions": {
            "string" : "string"
          },
          "CatalogId": "string",
          "ConnectionName": "string",
          "DatabaseName": "string",
          "TableName": "string"
        }
      },
      "JobName": "string",
      "JobRunId": "string",
      "ResultId": "string",
      "StartedOn": number
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A pagination token, if more results are available.

Type: String

### Results

A list of `DataQualityResultDescription` objects.

Type: Array of [DataQualityResultDescription](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDataQualityRuleRecommendationRuns

Lists the recommendation runs meeting the filter criteria.

## Request Syntax

```
{
  "Filter": {
    "DataSource": {
      "GlueTable": {
        "AdditionalOptions": {
          "string" : "string"
        },
        "CatalogId": "string",
        "ConnectionName": "string",
        "DatabaseName": "string",
        "TableName": "string"
      }
    },
    "StartedAfter": number,
    "StartedBefore": number
  },
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Filter

The filter criteria.

Type: [DataQualityRuleRecommendationRunFilter](#) object

Required: No

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A paginated token to offset the results.

Type: String

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Runs": [
    {
      "DataSource": {
        "GlueTable": {
          "AdditionalOptions": {
            "string": "string"
          },
          "CatalogId": "string",
          "ConnectionName": "string",
          "DatabaseName": "string",
          "TableName": "string"
        }
      },
      "RunId": "string",
      "StartedOn": number,
      "Status": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## NextToken

A pagination token, if more results are available.

Type: String

## Runs

A list of `DataQualityRuleRecommendationRunDescription` objects.

Type: Array of [DataQualityRuleRecommendationRunDescription](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDataQualityRulesetEvaluationRuns

Lists all the runs meeting the filter criteria, where a ruleset is evaluated against a data source.

## Request Syntax

```
{
  "Filter": {
    "DataSource": {
      "GlueTable": {
        "AdditionalOptions": {
          "string" : "string"
        },
        "CatalogId": "string",
        "ConnectionName": "string",
        "DatabaseName": "string",
        "TableName": "string"
      }
    },
    "StartedAfter": number,
    "StartedBefore": number
  },
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Filter

The filter criteria.

Type: [DataQualityRulesetEvaluationRunFilter](#) object

Required: No

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A paginated token to offset the results.

Type: String

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Runs": [
    {
      "DataSource": {
        "GlueTable": {
          "AdditionalOptions": {
            "string": "string"
          },
          "CatalogId": "string",
          "ConnectionName": "string",
          "DatabaseName": "string",
          "TableName": "string"
        }
      },
      "RunId": "string",
      "StartedOn": number,
      "Status": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

A pagination token, if more results are available.

Type: String

## Runs

A list of `DataQualityRulesetEvaluationRunDescription` objects representing data quality ruleset runs.

Type: Array of [DataQualityRulesetEvaluationRunDescription](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDataQualityRulesets

Returns a paginated list of rulesets for the specified list of AWS Glue tables.

## Request Syntax

```
{
  "Filter": {
    "CreatedAfter": number,
    "CreatedBefore": number,
    "Description": "string",
    "LastModifiedAfter": number,
    "LastModifiedBefore": number,
    "Name": "string",
    "TargetTable": {
      "CatalogId": "string",
      "DatabaseName": "string",
      "TableName": "string"
    }
  },
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Filter

The filter criteria.

Type: [DataQualityRulesetFilterCriteria](#) object

Required: No

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A paginated token to offset the results.

Type: String

Required: No

### Tags

A list of key-value pair tags.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Rulesets": [
    {
      "CreatedOn": number,
      "Description": "string",
      "LastModifiedOn": number,
      "Name": "string",
      "RecommendationRunId": "string",
      "RuleCount": number,
      "TargetTable": {
        "CatalogId": "string",
        "DatabaseName": "string",
        "TableName": "string"
      }
    }
  ]
}
```



```
}  
  }  
] }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A pagination token, if more results are available.

Type: String

### Rulesets

A paginated list of rulesets for the specified list of AWS Glue tables.

Type: Array of [DataQualityRulesetListDetails](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDevEndpoints

Retrieves the names of all `DevEndpoint` resources in this AWS account, or the resources with the specified tag. This operation allows you to see which resources are available in your account, and their names.

This operation takes the optional `Tags` field, which you can use as a filter on the response so that tagged resources can be retrieved as a group. If you choose to use tags filtering, only resources with the tag are retrieved.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### [NextToken](#)

A continuation token, if this is a continuation request.

Type: String

Required: No

## Tags

Specifies to return only these tagged resources.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "DevEndpointNames": [ "string" ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DevEndpointNames

The names of all the DevEndpoints in the account, or the DevEndpoints with the specified tags.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### NextToken

A continuation token, if the returned list does not contain the last metric available.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListJobs

Retrieves the names of all job resources in this AWS account, or the resources with the specified tag. This operation allows you to see which resources are available in your account, and their names.

This operation takes the optional `Tags` field, which you can use as a filter on the response so that tagged resources can be retrieved as a group. If you choose to use tags filtering, only resources with the tag are retrieved.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### [NextToken](#)

A continuation token, if this is a continuation request.

Type: String

Required: No

## Tags

Specifies to return only these tagged resources.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "JobNames": [ "string" ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobNames

The names of all jobs in the account, or the jobs with the specified tags.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### NextToken

A continuation token, if the returned list does not contain the last metric available.



Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMLTransforms

Retrieves a sortable, filterable list of existing AWS Glue machine learning transforms in this AWS account, or the resources with the specified tag. This operation takes the optional `Tags` field, which you can use as a filter of the responses so that tagged resources can be retrieved as a group. If you choose to use tag filtering, only resources with the tags are retrieved.

## Request Syntax

```
{
  "Filter": {
    "CreatedAfter": number,
    "CreatedBefore": number,
    "GlueVersion": "string",
    "LastModifiedAfter": number,
    "LastModifiedBefore": number,
    "Name": "string",
    "Schema": [
      {
        "DataType": "string",
        "Name": "string"
      }
    ],
    "Status": "string",
    "TransformType": "string"
  },
  "MaxResults": number,
  "NextToken": "string",
  "Sort": {
    "Column": "string",
    "SortDirection": "string"
  },
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## Filter

A `TransformFilterCriteria` used to filter the machine learning transforms.

Type: [TransformFilterCriteria](#) object

Required: No

## MaxResults

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## NextToken

A continuation token, if this is a continuation request.

Type: String

Required: No

## Sort

A `TransformSortCriteria` used to sort the machine learning transforms.

Type: [TransformSortCriteria](#) object

Required: No

## Tags

Specifies to return only these tagged resources.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TransformIds": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if the returned list does not contain the last metric available.

Type: String

### TransformIds

The identifiers of all the machine learning transforms in the account, or the machine learning transforms with the specified tags.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListRegistries

Returns a list of registries that you have created, with minimal registry information. Registries in the `Deleting` status will not be included in the results. Empty results will be returned if there are no registries available.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of results required per page. If the value is not supplied, this will be defaulted to 25 per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Response Syntax

```
{  
  "NextToken": "string",  
}
```

```
"Registries": [  
  {  
    "CreatedTime": "string",  
    "Description": "string",  
    "RegistryArn": "string",  
    "RegistryName": "string",  
    "Status": "string",  
    "UpdateTime": "string"  
  }  
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken](#)

A continuation token for paginating the returned list of tokens, returned if the current segment of the list is not the last.

Type: String

### [Registries](#)

An array of RegistryDetailedListItem objects containing minimal details of each registry.

Type: Array of [RegistryListItem](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.



HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListSchemas

Returns a list of schemas with minimal details. Schemas in Deleting status will not be included in the results. Empty results will be returned if there are no schemas available.

When the RegistryId is not provided, all the schemas across registries will be part of the API response.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "RegistryId": {
    "RegistryArn": "string",
    "RegistryName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

Maximum number of results required per page. If the value is not supplied, this will be defaulted to 25 per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken](#)

A continuation token, if this is a continuation call.

Type: String

Required: No

### RegistryId

A wrapper structure that may contain the registry name and Amazon Resource Name (ARN).

Type: [RegistryId](#) object

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Schemas": [
    {
      "CreatedTime": "string",
      "Description": "string",
      "RegistryName": "string",
      "SchemaArn": "string",
      "SchemaName": "string",
      "SchemaStatus": "string",
      "UpdatedTime": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token for paginating the returned list of tokens, returned if the current segment of the list is not the last.

Type: String

### Schemas

An array of `SchemaListItem` objects containing details of each schema.

Type: Array of [SchemaListItem](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListSchemaVersions

Returns a list of schema versions that you have created, with minimal information. Schema versions in Deleted status will not be included in the results. Empty results will be returned if there are no schema versions available.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of results required per page. If the value is not supplied, this will be defaulted to 25 per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

## Schemald

This is a wrapper structure to contain schema identity fields. The structure contains:

- `Schemald$SchemaArn`: The Amazon Resource Name (ARN) of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.
- `Schemald$SchemaName`: The name of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.

Type: [Schemald](#) object

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "Schemas": [
    {
      "CreatedTime": "string",
      "SchemaArn": "string",
      "SchemaVersionId": "string",
      "Status": "string",
      "VersionNumber": number
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token for paginating the returned list of tokens, returned if the current segment of the list is not the last.

Type: String

## [Schemas](#)

An array of `SchemaVersionList` objects containing details of each schema version.

Type: Array of [SchemaVersionListItem](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)



- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListSessions

Retrieve a list of sessions.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "RequestOrigin": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### [NextToken](#)

The token for the next set of results, or null if there are no more result.

Type: String

Length Constraints: Maximum length of 400000.

Required: No

### [RequestOrigin](#)

The origin of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

## Tags

Tags belonging to the session.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "Ids": [ "string" ],
  "NextToken": "string",
  "Sessions": [
    {
      "Command": {
        "Name": "string",
        "PythonVersion": "string"
      },
      "CompletedOn": number,
      "Connections": {
        "Connections": [ "string" ]
      },
      "CreatedOn": number,
      "DefaultArguments": {
        "string" : "string"
      },
      "Description": "string",
      "DPUSecods": number,
```



## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# ListStatements

Lists statements for the session.

## Request Syntax

```
{  
  "NextToken": "string",  
  "RequestOrigin": "string",  
  "SessionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [NextToken](#)

A continuation token, if this is a continuation call.

Type: String

Length Constraints: Maximum length of 400000.

Required: No

### [RequestOrigin](#)

The origin of the request to list statements.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

### [SessionId](#)

The Session ID of the statements.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "Statements": [
    {
      "Code": "string",
      "CompletedOn": number,
      "Id": number,
      "Output": {
        "Data": {
          "TextPlain": "string"
        },
        "ErrorName": "string",
        "ErrorValue": "string",
        "ExecutionCount": number,
        "Status": "string",
        "Traceback": [ "string" ]
      },
      "Progress": number,
      "StartedOn": number,
      "State": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if not all statements have yet been returned.



Type: String

Length Constraints: Maximum length of 400000.

### **Statements**

Returns the list of statements.

Type: Array of [Statement](#) objects

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **IllegalSessionStateException**

The session is in an invalid state to perform a requested operation.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTableOptimizerRuns

Lists the history of previous optimizer runs for a specific table.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "TableName": "string",
  "Type": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`





## NextToken

A continuation token for paginating the returned list of optimizer runs, returned if the current segment of the list is not the last.

Type: String

## TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## TableOptimizerRuns

A list of the optimizer runs associated with a table.

Type: Array of [TableOptimizerRun](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTriggers

Retrieves the names of all trigger resources in this AWS account, or the resources with the specified tag. This operation allows you to see which resources are available in your account, and their names.

This operation takes the optional `Tags` field, which you can use as a filter on the response so that tagged resources can be retrieved as a group. If you choose to use tags filtering, only resources with the tag are retrieved.

## Request Syntax

```
{
  "DependentJobName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DependentJobName

The name of the job for which to retrieve triggers. The trigger that can start this job is returned. If there is no such trigger, all triggers are returned.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### MaxResults

The maximum size of a list to return.



Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: No

### NextToken

A continuation token, if this is a continuation request.

Type: String

Required: No

### Tags

Specifies to return only these tagged resources.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TriggerNames": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if the returned list does not contain the last metric available.

Type: String

### TriggerNames

The names of all triggers in the account, or the triggers with the specified tags.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListWorkflows

Lists names of workflows created in the account.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum size of a list to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

### NextToken

A continuation token, if this is a continuation request.

Type: String

Required: No

## Response Syntax

```
{  
  "NextToken": "string",  
  "Workflows": [ "string" ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, if not all workflow names have been returned.

Type: String

### Workflows

List of names of workflows in the account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## [DataCatalogEncryptionSettings](#)

The security configuration to set.

Type: [DataCatalogEncryptionSettings](#) object

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)



- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# PutResourcePolicy

Sets the Data Catalog resource policy for access control.

## Request Syntax

```
{
  "EnableHybrid": "string",
  "PolicyExistsCondition": "string",
  "PolicyHashCondition": "string",
  "PolicyInJson": "string",
  "ResourceArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EnableHybrid

If 'TRUE', indicates that you are using both methods to grant cross-account access to Data Catalog resources:

- By directly updating the resource policy with `PutResourcePolicy`
- By using the **Grant permissions** command on the AWS Management Console.

Must be set to 'TRUE' if you have already used the Management Console to grant cross-account access, otherwise the call fails. Default is 'FALSE'.

Type: String

Valid Values: TRUE | FALSE

Required: No

### PolicyExistsCondition

A value of `MUST_EXIST` is used to update a policy. A value of `NOT_EXIST` is used to create a new policy. If a value of `NONE` or a null value is used, the call does not depend on the existence of a policy.

Type: String

Valid Values: MUST\_EXIST | NOT\_EXIST | NONE

Required: No

### PolicyHashCondition

The hash value returned when the previous policy was set using `PutResourcePolicy`. Its purpose is to prevent concurrent modifications of a policy. Do not use this parameter if no previous policy has been set.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### PolicyInJson

Contains the policy document to set, in JSON format.

Type: String

Length Constraints: Minimum length of 2.

Required: Yes

### ResourceArn

Do not use. For internal use only.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

## Response Syntax

```
{
```

```
"PolicyHash": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### PolicyHash

A hash of the policy that has just been set. This must be included in a subsequent call that overwrites or updates this policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConditionCheckFailureException**

A specified condition was not satisfied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# PutSchemaVersionMetadata

Puts the metadata key value pair for a specified schema version ID. A maximum of 10 key value pairs will be allowed per schema version. They can be added over one or more calls.

## Request Syntax

```
{
  "MetadataKeyValue": {
    "MetadataKey": "string",
    "MetadataValue": "string"
  },
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MetadataKeyValue

The metadata key's corresponding value.

Type: [MetadataKeyValuePair](#) object

Required: Yes

### SchemaId

The unique ID for the schema.

Type: [SchemaId](#) object

Required: No

### SchemaVersionId

The unique version ID of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### SchemaVersionNumber

The version number of the schema.

Type: [SchemaVersionNumber](#) object

Required: No

## Response Syntax

```
{
  "LatestVersion": boolean,
  "MetadataKey": "string",
  "MetadataValue": "string",
  "RegistryName": "string",
  "SchemaArn": "string",
  "SchemaName": "string",
  "SchemaVersionId": "string",
  "VersionNumber": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### LatestVersion

The latest version of the schema.

Type: Boolean

### MetadataKey

The metadata key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9+-. \_./@]+

### MetadataValue

The value of the metadata key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: [a-zA-Z0-9+-. \_./@]+

### RegistryName

The name for the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#.]+

### SchemaArn

The Amazon Resource Name (ARN) for the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: arn:(aws|aws-us-gov|aws-cn):glue:.\*

### SchemaName

The name for the schema.

Type: String



Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#. ]+

### SchemaVersionId

The unique version ID of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

### VersionNumber

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# PutWorkflowRunProperties

Puts the specified workflow run properties for the given workflow run. If a property already exists for the specified run, then it overrides the value otherwise adds the property to existing properties.

## Request Syntax

```
{
  "Name": "string",
  "RunId": "string",
  "RunProperties": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

Name of the workflow which was run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RunId

The ID of the workflow run for which the run properties should be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## RunProperties

The properties to put for the specified run.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# QuerySchemaVersionMetadata

Queries for the schema version metadata information.

## Request Syntax

```
{
  "MaxResults": number,
  "MetadataList": [
    {
      "MetadataKey": "string",
      "MetadataValue": "string"
    }
  ],
  "NextToken": "string",
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of results required per page. If the value is not supplied, this will be defaulted to 25 per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### MetadataList

Search key-value pairs for metadata, if they are not provided all the metadata information will be fetched.

Type: Array of [MetadataKeyValuePair](#) objects

Required: No

### NextToken

A continuation token, if this is a continuation call.

Type: String

Required: No

### Schemald

A wrapper structure that may contain the schema name and Amazon Resource Name (ARN).

Type: [Schemald](#) object

Required: No

### SchemaVersionId

The unique version ID of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### SchemaVersionNumber

The version number of the schema.

Type: [SchemaVersionNumber](#) object

Required: No

## Response Syntax

```
{
  "MetadataInfoMap": {
    "string" : {
      "CreatedTime": "string",
      "MetadataValue": "string",
      "OtherMetadataValueList": [
        {
          "CreatedTime": "string",
          "MetadataValue": "string"
        }
      ]
    }
  },
  "NextToken": "string",
  "SchemaVersionId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MetadataInfoMap

A map of a metadata key and associated values.

Type: String to [MetadataInfo](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: [a-zA-Z0-9+-. \_./@]+

### NextToken

A continuation token for paginating the returned list of tokens, returned if the current segment of the list is not the last.

Type: String



## SchemaVersionId

The unique version ID of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# RegisterSchemaVersion

Adds a new version to the existing schema. Returns an error if new version of schema does not meet the compatibility requirements of the schema set. This API will not create a new schema set and will return a 404 error if the schema set is not already present in the Schema Registry.

If this is the first schema definition to be registered in the Schema Registry, this API will store the schema version and return immediately. Otherwise, this call has the potential to run longer than other operations due to compatibility modes. You can call the `GetSchemaVersion` API with the `SchemaVersionId` to check compatibility modes.

If the same schema definition is already stored in Schema Registry as a version, the schema ID of the existing schema is returned to the caller.

## Request Syntax

```
{
  "SchemaDefinition": "string",
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### SchemaDefinition

The schema definition using the `DataFormat` setting for the `SchemaName`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170000.

Pattern: `.*\S.*`

Required: Yes

### Schemald

This is a wrapper structure to contain schema identity fields. The structure contains:

- `Schemald$SchemaArn`: The Amazon Resource Name (ARN) of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.
- `Schemald$SchemaName`: The name of the schema. Either `SchemaArn` or `SchemaName` and `RegistryName` has to be provided.

Type: [Schemald](#) object

Required: Yes

## Response Syntax

```
{  
  "SchemaVersionId": "string",  
  "Status": "string",  
  "VersionNumber": number  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SchemaVersionId

The unique ID that represents the version of this schema.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

### Status

The status of the schema version.

Type: String

Valid Values: AVAILABLE | PENDING | FAILURE | DELETING

### VersionNumber

The version of this schema (for sync flow only, in case this is the first version).

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# RemoveSchemaVersionMetadata

Removes a key value pair from the schema version metadata for the specified schema version ID.

## Request Syntax

```
{
  "MetadataKeyValue": {
    "MetadataKey": "string",
    "MetadataValue": "string"
  },
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MetadataKeyValue

The value of the metadata key.

Type: [MetadataKeyValuePair](#) object

Required: Yes

### SchemaId

A wrapper structure that may contain the schema name and Amazon Resource Name (ARN).

Type: [SchemaId](#) object

Required: No

### SchemaVersionId

The unique version ID of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### SchemaVersionNumber

The version number of the schema.

Type: [SchemaVersionNumber](#) object

Required: No

## Response Syntax

```
{
  "LatestVersion": boolean,
  "MetadataKey": "string",
  "MetadataValue": "string",
  "RegistryName": "string",
  "SchemaArn": "string",
  "SchemaName": "string",
  "SchemaVersionId": "string",
  "VersionNumber": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### LatestVersion

The latest version of the schema.



Type: Boolean

### MetadataKey

The metadata key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9+-. \_./@]+

### MetadataValue

The value of the metadata key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: [a-zA-Z0-9+-. \_./@]+

### RegistryName

The name of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#.]+

### SchemaArn

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: arn:(aws|aws-us-gov|aws-cn):glue:.\*

### SchemaName

The name of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#. ]+

### SchemaVersionId

The version ID for the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

### VersionNumber

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ResetJobBookmark

Resets a bookmark entry.

For more information about enabling and using job bookmarks, see:

- [Tracking processed data using job bookmarks](#)
- [Job parameters used by AWS Glue](#)
- [Job structure](#)

## Request Syntax

```
{
  "JobName": "string",
  "RunId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [JobName](#)

The name of the job in question.

Type: String

Required: Yes

### [RunId](#)

The unique run identifier associated with this job run.

Type: String

Required: No

## Response Syntax

```
{
  "JobBookmarkEntry": {
    "Attempt": number,
    "JobBookmark": "string",
    "JobName": "string",
    "PreviousRunId": "string",
    "Run": number,
    "RunId": "string",
    "Version": number
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobBookmarkEntry

The reset bookmark entry.

Type: JobBookmarkEntry object

## Errors

For information about the errors that are common to all actions, see Common Errors.

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ResumeWorkflowRun

Restarts selected nodes of a previous partially completed workflow run and resumes the workflow run. The selected nodes and all nodes that are downstream from the selected nodes are run.

## Request Syntax

```
{
  "Name": "string",
  "NodeIds": [ "string" ],
  "RunId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the workflow to resume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### NodeIds

A list of the node IDs for the nodes you want to restart. The nodes that are to be restarted must have a run attempt in the original run.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RunId

The ID of the workflow run to resume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "NodeIds": [ "string" ],  
  "RunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NodeIds

A list of the node IDs for the nodes that were actually restarted.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

### RunId

The new ID assigned to the resumed workflow run. Each resume of a workflow run will have a new run ID.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentRunsExceededException**

Too many jobs are being run concurrently.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **IllegalWorkflowStateException**

The workflow is in an invalid state to perform a requested operation.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# RunStatement

Executes the statement.

## Request Syntax

```
{  
  "Code": "string",  
  "RequestOrigin": "string",  
  "SessionId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Code

The statement code to be run.

Type: String

Length Constraints: Maximum length of 68000.

Required: Yes

### RequestOrigin

The origin of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

### SessionId

The Session Id of the statement to be run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Id": number  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Id

Returns the Id of the statement that was run.

Type: Integer

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **IllegalSessionStateException**

The session is in an invalid state to perform a requested operation.

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **ValidationException**

A value could not be validated.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# SearchTables

Searches a set of tables based on properties in the table metadata as well as on the parent database. You can search against text or filter conditions.

You can only get tables that you have access to based on the security policies defined in Lake Formation. You need at least a read-only access to the table for it to be returned. If you do not have access to all the columns in the table, these columns will not be searched against when returning the list of tables back to you. If you have access to the columns but not the data in the columns, those columns and the associated metadata for those columns will be included in the search.

## Request Syntax

```
{
  "CatalogId": "string",
  "Filters": [
    {
      "Comparator": "string",
      "Key": "string",
      "Value": "string"
    }
  ],
  "MaxResults": number,
  "NextToken": "string",
  "ResourceShareType": "string",
  "SearchText": "string",
  "SortCriteria": [
    {
      "FieldName": "string",
      "Sort": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## CatalogId

A unique identifier, consisting of `account_id` .

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Filters

A list of key-value pairs, and a comparator used to filter the search results. Returns all entities matching the predicate.

The `Comparator` member of the `PropertyPredicate` struct is used only for time fields, and can be omitted for other field types. Also, when comparing string values, such as when `Key=Name`, a fuzzy match algorithm is used. The `Key` field (for example, the value of the `Name` field) is split on certain punctuation characters, for example, `-`, `:`, `#`, etc. into tokens. Then each token is exact-match compared with the `Value` member of `PropertyPredicate`. For example, if `Key=Name` and `Value=link`, tables named `customer-link` and `xx-link-yy` are returned, but `xxlinkyy` is not returned.

Type: Array of [PropertyPredicate](#) objects

Required: No

## MaxResults

The maximum number of tables to return in a single response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## NextToken

A continuation token, included if this is a continuation call.

Type: String

Required: No



## ResourceShareType

Allows you to specify that you want to search the tables shared with your account. The allowable values are FOREIGN or ALL.

- If set to FOREIGN, will search the tables shared with your account.
- If set to ALL, will search the tables shared with your account, as well as the tables in your local account.

Type: String

Valid Values: FOREIGN | ALL | FEDERATED

Required: No

## SearchText

A string used for a text search.

Specifying a value in quotes filters based on an exact match to the value.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## SortCriteria

A list of criteria for sorting the results by a field name, in an ascending or descending order.

Type: Array of [SortCriterion](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TableList": [
    {
      "CatalogId": "string",
      "CreatedBy": "string",
```

```
"CreateTime": number,
"DatabaseName": "string",
"Description": "string",
"FederatedTable": {
  "ConnectionName": "string",
  "DatabaseIdentifier": "string",
  "Identifier": "string"
},
"IsMultiDialectView": boolean,
"IsRegisteredWithLakeFormation": boolean,
"LastAccessTime": number,
"LastAnalyzedTime": number,
"Name": "string",
"Owner": "string",
"Parameters": {
  "string" : "string"
},
"PartitionKeys": [
  {
    "Comment": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "Type": "string"
  }
],
"Retention": number,
"StorageDescriptor": {
  "AdditionalLocations": [ "string" ],
  "BucketColumns": [ "string" ],
  "Columns": [
    {
      "Comment": "string",
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "Type": "string"
    }
  ],
  "Compressed": boolean,
  "InputFormat": "string",
  "Location": "string",
```

```

    "NumberOfBuckets": number,
    "OutputFormat": "string",
    "Parameters": {
      "string" : "string"
    },
    "SchemaReference": {
      "SchemaId": {
        "RegistryName": "string",
        "SchemaArn": "string",
        "SchemaName": "string"
      },
      "SchemaVersionId": "string",
      "SchemaVersionNumber": number
    },
    "SerdeInfo": {
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "SerializationLibrary": "string"
    },
    "SkewedInfo": {
      "SkewedColumnNames": [ "string" ],
      "SkewedColumnValueLocationMaps": {
        "string" : "string"
      },
      "SkewedColumnValues": [ "string" ]
    },
    "SortColumns": [
      {
        "Column": "string",
        "SortOrder": number
      }
    ],
    "StoredAsSubDirectories": boolean
  },
  "TableType": "string",
  "TargetTable": {
    "CatalogId": "string",
    "DatabaseName": "string",
    "Name": "string",
    "Region": "string"
  },
  "UpdateTime": number,

```

```
"VersionId": "string",
"ViewDefinition": {
  "Definer": "string",
  "IsProtected": boolean,
  "Representations": [
    {
      "Dialect": "string",
      "DialectVersion": "string",
      "IsStale": boolean,
      "ViewExpandedText": "string",
      "ViewOriginalText": "string"
    }
  ],
  "SubObjects": [ "string" ]
},
"ViewExpandedText": "string",
"ViewOriginalText": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A continuation token, present if the current list segment is not the last.

Type: String

### TableList

A list of the requested Table objects. The SearchTables response returns only the tables that you have access to.

Type: Array of [Table](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartBlueprintRun

Starts a new run of the specified blueprint.

## Request Syntax

```
{  
  "BlueprintName": "string",  
  "Parameters": "string",  
  "RoleArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### BlueprintName

The name of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: Yes

### Parameters

Specifies the parameters as a `BlueprintParameters` object.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131072.

Required: No

### RoleArn

Specifies the IAM role used to create the workflow.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `arn:aws[^:]*:iam::[0-9]*:role/.+`

Required: Yes

## Response Syntax

```
{  
  "RunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RunId

The run ID for this blueprint run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **IllegalBlueprintStateException**

The blueprint is in an invalid state to perform a requested operation.

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)



- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the database where the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Role

The IAM role that the service assumes to generate statistics.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### SampleSize

The percentage of rows used to generate statistics. If none is supplied, the entire table will be used to generate stats.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

### SecurityConfiguration

Name of the security configuration that is used to encrypt CloudWatch logs for the column stats task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### TableName

The name of the table to generate statistics.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "ColumnStatisticsTaskRunId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ColumnStatisticsTaskRunId

The identifier for the column statistics task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

## **ColumnStatisticsTaskRunningException**

An exception thrown when you try to start another job while running a column stats generation job.

HTTP Status Code: 400

## **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartCrawler

Starts a crawl using the specified crawler, regardless of what is scheduled. If the crawler is already running, returns a [CrawlerRunningException](#).

## Request Syntax

```
{
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

Name of the crawler to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **CrawlerRunningException**

The operation cannot be performed because the crawler is already running.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# StartCrawlerSchedule

Changes the schedule state of the specified crawler to SCHEDULED, unless the crawler is already running or the schedule state is already SCHEDULED.

## Request Syntax

```
{  
  "CrawlerName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CrawlerName

Name of the crawler to schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### **NoScheduleException**

There is no applicable schedule.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **SchedulerRunningException**

The specified scheduler is already running.

HTTP Status Code: 400

### **SchedulerTransitioningException**

The specified scheduler is transitioning.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
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# StartDataQualityRuleRecommendationRun

Starts a recommendation run that is used to generate rules when you don't know what rules to write. AWS Glue Data Quality analyzes the data and comes up with recommendations for a potential ruleset. You can then triage the ruleset and modify the generated ruleset to your liking.

Recommendation runs are automatically deleted after 90 days.

## Request Syntax

```
{
  "ClientToken": "string",
  "CreatedRulesetName": "string",
  "DataSource": {
    "GlueTable": {
      "AdditionalOptions": {
        "string" : "string"
      },
      "CatalogId": "string",
      "ConnectionName": "string",
      "DatabaseName": "string",
      "TableName": "string"
    }
  },
  "NumberOfWorkers": number,
  "Role": "string",
  "Timeout": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClientToken

Used for idempotency and is recommended to be set to a random ID (such as a UUID) to avoid creating or starting multiple instances of the same resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CreatedRulesetName

A name for the ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DataSource

The data source (AWS Glue table) associated with this run.

Type: [DataSource](#) object

Required: Yes

### NumberOfWorkers

The number of G.1X workers to be used in the run. The default is 5.

Type: Integer

Required: No

### Role

An IAM role supplied to encrypt the results of the run.

Type: String

Required: Yes

### Timeout

The timeout for a run in minutes. This is the maximum time that a run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## Response Syntax

```
{  
  "RunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

The `CreatePartitions` API was called on a table that has indexes enabled.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartDataQualityRulesetEvaluationRun

Once you have a ruleset definition (either recommended or your own), you call this operation to evaluate the ruleset against a data source (AWS Glue table). The evaluation computes results which you can retrieve with the `GetDataQualityResult` API.

## Request Syntax

```
{
  "AdditionalDataSources": {
    "string": {
      "GlueTable": {
        "AdditionalOptions": {
          "string": "string"
        },
        "CatalogId": "string",
        "ConnectionName": "string",
        "DatabaseName": "string",
        "TableName": "string"
      }
    }
  },
  "AdditionalRunOptions": {
    "CloudWatchMetricsEnabled": boolean,
    "ResultsS3Prefix": "string"
  },
  "ClientToken": "string",
  "DataSource": {
    "GlueTable": {
      "AdditionalOptions": {
        "string": "string"
      },
      "CatalogId": "string",
      "ConnectionName": "string",
      "DatabaseName": "string",
      "TableName": "string"
    }
  },
  "NumberOfWorkers": number,
  "Role": "string",
  "RulesetNames": [ "string" ],
  "Timeout": number
}
```

```
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AdditionalDataSources](#)

A map of reference strings to additional data sources you can specify for an evaluation run.

Type: String to [DataSource](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### [AdditionalRunOptions](#)

Additional run options you can specify for an evaluation run.

Type: [DataQualityEvaluationRunAdditionalRunOptions](#) object

Required: No

### [ClientToken](#)

Used for idempotency and is recommended to be set to a random ID (such as a UUID) to avoid creating or starting multiple instances of the same resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### [DataSource](#)

The data source (AWS Glue table) associated with this run.

Type: [DataSource](#) object



Required: Yes

### NumberOfWorkers

The number of G.1X workers to be used in the run. The default is 5.

Type: Integer

Required: No

### Role

An IAM role supplied to encrypt the results of the run.

Type: String

Required: Yes

### RulesetNames

A list of ruleset names.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Timeout

The timeout for a run in minutes. This is the maximum time that a run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## Response Syntax

```
{
```

```
"RunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

The CreatePartitions API was called on a table that has indexes enabled.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartExportLabelsTaskRun

Begins an asynchronous task to export all labeled data for a particular transform. This task is the only label-related API call that is not part of the typical active learning workflow. You typically use `StartExportLabelsTaskRun` when you want to work with all of your existing labels at the same time, such as when you want to remove or change labels that were previously submitted as truth. This API operation accepts the `TransformId` whose labels you want to export and an Amazon Simple Storage Service (Amazon S3) path to export the labels to. The operation returns a `TaskRunId`. You can check on the status of your task run by calling the `GetMLTaskRun` API.

## Request Syntax

```
{
  "OutputS3Path": "string",
  "TransformId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [OutputS3Path](#)

The Amazon S3 path where you export the labels.

Type: String

Required: Yes

### [TransformId](#)

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "TaskRunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TaskRunId

The unique identifier for the task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartImportLabelsTaskRun

Enables you to provide additional labels (examples of truth) to be used to teach the machine learning transform and improve its quality. This API operation is generally used as part of the active learning workflow that starts with the `StartMLLabelingSetGenerationTaskRun` call and that ultimately results in improving the quality of your machine learning transform.

After the `StartMLLabelingSetGenerationTaskRun` finishes, AWS Glue machine learning will have generated a series of questions for humans to answer. (Answering these questions is often called 'labeling' in the machine learning workflows). In the case of the `FindMatches` transform, these questions are of the form, "What is the correct way to group these rows together into groups composed entirely of matching records?" After the labeling process is finished, users upload their answers/labels with a call to `StartImportLabelsTaskRun`. After `StartImportLabelsTaskRun` finishes, all future runs of the machine learning transform use the new and improved labels and perform a higher-quality transformation.

By default, `StartMLLabelingSetGenerationTaskRun` continually learns from and combines all labels that you upload unless you set `Replace` to true. If you set `Replace` to true, `StartImportLabelsTaskRun` deletes and forgets all previously uploaded labels and learns only from the exact set that you upload. Replacing labels can be helpful if you realize that you previously uploaded incorrect labels, and you believe that they are having a negative effect on your transform quality.

You can check on the status of your task run by calling the `GetMLTaskRun` operation.

## Request Syntax

```
{
  "InputS3Path": "string",
  "ReplaceAllLabels": boolean,
  "TransformId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## InputS3Path

The Amazon Simple Storage Service (Amazon S3) path from where you import the labels.

Type: String

Required: Yes

## ReplaceAllLabels

Indicates whether to overwrite your existing labels.

Type: Boolean

Required: No

## TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "TaskRunId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TaskRunId

The unique identifier for the task run.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerErrorException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

### ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartJobRun

Starts a job run using a job definition.

## Request Syntax

```
{
  "AllocatedCapacity": number,
  "Arguments": {
    "string" : "string"
  },
  "ExecutionClass": "string",
  "JobName": "string",
  "JobRunId": "string",
  "MaxCapacity": number,
  "NotificationProperty": {
    "NotifyDelayAfter": number
  },
  "NumberOfWorkers": number,
  "SecurityConfiguration": "string",
  "Timeout": number,
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AllocatedCapacity

This field is deprecated. Use `MaxCapacity` instead.

The number of AWS Glue data processing units (DPUs) to allocate to this JobRun. You can allocate a minimum of 2 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

Type: Integer

Required: No

## Arguments

The job arguments associated with this run. For this job run, they replace the default arguments set in the job definition itself.

You can specify arguments here that your own job-execution script consumes, as well as arguments that AWS Glue itself consumes.

Job arguments may be logged. Do not pass plaintext secrets as arguments. Retrieve secrets from a AWS Glue Connection, AWS Secrets Manager or other secret management mechanism if you intend to keep them within the Job.

For information about how to specify and consume your own Job arguments, see the [Calling AWS Glue APIs in Python](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Spark jobs, see the [Special Parameters Used by AWS Glue](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Ray jobs, see [Using job parameters in Ray jobs](#) in the developer guide.

Type: String to string map

Required: No

## ExecutionClass

Indicates whether the job is run with a standard or flexible execution class. The standard execution-class is ideal for time-sensitive workloads that require fast job startup and dedicated resources.

The flexible execution class is appropriate for time-insensitive jobs whose start and completion times may vary.

Only jobs with AWS Glue version 3.0 and above and command type `glueetl` will be allowed to set `ExecutionClass` to FLEX. The flexible execution class is available for Spark jobs.

Type: String

Length Constraints: Maximum length of 16.

Valid Values: FLEX | STANDARD

Required: No

## JobName

The name of the job definition to use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## JobRunId

The ID of a previous JobRun to retry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## MaxCapacity

For Glue version 1.0 or earlier jobs, using the standard worker type, the number of AWS Glue data processing units (DPUs) that can be allocated when this job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

For Glue version 2.0+ jobs, you cannot specify a Maximum capacity. Instead, you should specify a Worker type and the Number of workers.

Do not set MaxCapacity if using WorkerType and NumberOfWorkers.

The value that can be allocated for MaxCapacity depends on whether you are running a Python shell job, an Apache Spark ETL job, or an Apache Spark streaming ETL job:

- When you specify a Python shell job (`JobCommand.Name="pythonshell"`), you can allocate either 0.0625 or 1 DPU. The default is 0.0625 DPU.
- When you specify an Apache Spark ETL job (`JobCommand.Name="glueetl"`) or Apache Spark streaming ETL job (`JobCommand.Name="gluestreaming"`), you can allocate from 2 to 100 DPUs. The default is 10 DPUs. This job type cannot have a fractional DPU allocation.

Type: Double

Required: No

### NotificationProperty

Specifies configuration properties of a job run notification.

Type: [NotificationProperty](#) object

Required: No

### NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when a job runs.

Type: Integer

Required: No

### SecurityConfiguration

The name of the `SecurityConfiguration` structure to be used with this job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Timeout

The `JobRun` timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters `TIMEOUT` status. This value overrides the timeout value set in the parent job.

Streaming jobs do not have a timeout. The default for non-streaming jobs is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## WorkerType

The type of predefined worker that is allocated when a job runs. Accepts a value of G.1X, G.2X, G.4X, G.8X or G.025X for Spark jobs. Accepts the value Z.2X for Ray jobs.

- For the G.1X worker type, each worker maps to 1 DPU (4 vCPUs, 16 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.2X worker type, each worker maps to 2 DPU (8 vCPUs, 32 GB of memory) with 128GB disk (approximately 77GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.4X worker type, each worker maps to 4 DPU (16 vCPUs, 64 GB of memory) with 256GB disk (approximately 235GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs in the following AWS Regions: US East (Ohio), US East (N. Virginia), US West (Oregon), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), Canada (Central), Europe (Frankfurt), Europe (Ireland), and Europe (Stockholm).
- For the G.8X worker type, each worker maps to 8 DPU (32 vCPUs, 128 GB of memory) with 512GB disk (approximately 487GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs, in the same AWS Regions as supported for the G.4X worker type.
- For the G.025X worker type, each worker maps to 0.25 DPU (2 vCPUs, 4 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for low volume streaming jobs. This worker type is only available for AWS Glue version 3.0 streaming jobs.
- For the Z.2X worker type, each worker maps to 2 M-DPU (8vCPUs, 64 GB of memory) with 128 GB disk (approximately 120GB free), and provides up to 8 Ray workers based on the autoscaler.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## Response Syntax

```
{  
  "JobRunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobRunId

The ID assigned to this job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentRunsExceededException**

Too many jobs are being run concurrently.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500



## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StartMLEvaluationTaskRun

Starts a task to estimate the quality of the transform.

When you provide label sets as examples of truth, AWS Glue machine learning uses some of those examples to learn from them. The rest of the labels are used as a test to estimate quality.

Returns a unique identifier for the run. You can call `GetMLTaskRun` to get more information about the stats of the `EvaluationTaskRun`.

### Request Syntax

```
{
  "TransformId": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Response Syntax

```
{
  "TaskRunId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TaskRunId

The unique identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentRunsExceededException**

Too many jobs are being run concurrently.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **MLTransformNotReadyException**

The machine learning transform is not ready to run.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartMLLabelingSetGenerationTaskRun

Starts the active learning workflow for your machine learning transform to improve the transform's quality by generating label sets and adding labels.

When the `StartMLLabelingSetGenerationTaskRun` finishes, AWS Glue will have generated a "labeling set" or a set of questions for humans to answer.

In the case of the `FindMatches` transform, these questions are of the form, "What is the correct way to group these rows together into groups composed entirely of matching records?"

After the labeling process is finished, you can upload your labels with a call to `StartImportLabelsTaskRun`. After `StartImportLabelsTaskRun` finishes, all future runs of the machine learning transform will use the new and improved labels and perform a higher-quality transformation.

## Request Syntax

```
{  
  "OutputS3Path": "string",  
  "TransformId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### OutputS3Path

The Amazon Simple Storage Service (Amazon S3) path where you generate the labeling set.

Type: String

Required: Yes

### TransformId

The unique identifier of the machine learning transform.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "TaskRunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TaskRunId](#)

The unique run identifier that is associated with this task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentRunsExceededException**

Too many jobs are being run concurrently.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartTrigger

Starts an existing trigger. See [Triggering Jobs](#) for information about how different types of trigger are started.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the trigger to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## Name

The name of the trigger that was started.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentRunsExceededException**

Too many jobs are being run concurrently.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartWorkflowRun

Starts a new run of the specified workflow.

## Request Syntax

```
{
  "Name": "string",
  "RunProperties": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the workflow to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RunProperties

The workflow run properties for the new workflow run.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{  
  "RunId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RunId

An Id for the new run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentRunsExceededException**

Too many jobs are being run concurrently.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopColumnStatisticsTaskRun

Stops a task run for the specified table.

## Request Syntax

```
{
  "DatabaseName": "string",
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DatabaseName

The name of the database where the table resides.

Type: String

Required: Yes

### TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ColumnStatisticsTaskNotRunningException

An exception thrown when you try to stop a task run when there is no task running.

HTTP Status Code: 400

### ColumnStatisticsTaskStoppingException

An exception thrown when you try to stop a task run.

HTTP Status Code: 400

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)



# StopCrawler

If the specified crawler is running, stops the crawl.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

Name of the crawler to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **CrawlerNotRunningException**

The specified crawler is not running.

HTTP Status Code: 400

## **CrawlerStoppingException**

The specified crawler is stopping.

HTTP Status Code: 400

## **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopCrawlerSchedule

Sets the schedule state of the specified crawler to NOT\_SCHEDULED, but does not stop the crawler if it is already running.

## Request Syntax

```
{  
  "CrawlerName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CrawlerName

Name of the crawler whose schedule state to set.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **SchedulerNotRunningException**

The specified scheduler is not running.

HTTP Status Code: 400

### **SchedulerTransitioningException**

The specified scheduler is transitioning.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopSession

Stops the session.

## Request Syntax

```
{
  "Id": "string",
  "RequestOrigin": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Id

The ID of the session to be stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\uD800-\uDC00-\uD800-\uDBFF\uDBFF\uDFFF\t]*`

Required: Yes

### RequestOrigin

The origin of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

## Response Syntax

```
{  
  "Id": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Id

Returns the Id of the stopped session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **IllegalSessionStateException**

The session is in an invalid state to perform a requested operation.

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopTrigger

Stops a specified trigger.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the trigger to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## Name

The name of the trigger that was stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopWorkflowRun

Stops the execution of the specified workflow run.

## Request Syntax

```
{  
  "Name": "string",  
  "RunId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the workflow to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RunId

The ID of the workflow run to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### IllegalWorkflowStateException

The workflow is in an invalid state to perform a requested operation.

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# TagResource

Adds tags to a resource. A tag is a label you can assign to an AWS resource. In AWS Glue, you can tag only certain resources. For information about what resources you can tag, see [AWS Tags in AWS Glue](#).

In addition to the tagging permissions to call tag related APIs, you also need the `glue:GetConnection` permission to call tagging APIs on connections, and the `glue:GetDatabase` permission to call tagging APIs on databases.

## Request Syntax

```
{
  "ResourceArn": "string",
  "TagsToAdd": {
    "string" : "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ResourceArn](#)

The ARN of the AWS Glue resource to which to add the tags. For more information about AWS Glue resource ARNs, see the [AWS Glue ARN string pattern](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: Yes

### [TagsToAdd](#)

Tags to add to this resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UntagResource

Removes tags from a resource.

## Request Syntax

```
{  
  "ResourceArn": "string",  
  "TagsToRemove": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ResourceArn

The Amazon Resource Name (ARN) of the resource from which to remove the tags.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: Yes

### TagsToRemove

Tags to remove from this resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerError

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateBlueprint

Updates a registered blueprint.

## Request Syntax

```
{
  "BlueprintLocation": "string",
  "Description": "string",
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### BlueprintLocation

Specifies a path in Amazon S3 where the blueprint is published.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `^s3://([^\s/]+)/([^\s/]+)*([^\s/]+)$`

Required: Yes

### Description

A description of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### Name

The name of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\_\-A-Za-z0-9]+`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

Returns the name of the blueprint that was updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **IllegalBlueprintStateException**

The blueprint is in an invalid state to perform a requested operation.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateClassifier

Modifies an existing classifier (a GrokClassifier, an XMLClassifier, a JsonClassifier, or a CsvClassifier, depending on which field is present).

## Request Syntax

```
{
  "CsvClassifier": {
    "AllowSingleColumn": boolean,
    "ContainsHeader": "string",
    "CustomDatatypeConfigured": boolean,
    "CustomDatatypes": [ "string" ],
    "Delimiter": "string",
    "DisableValueTrimming": boolean,
    "Header": [ "string" ],
    "Name": "string",
    "QuoteSymbol": "string",
    "Serde": "string"
  },
  "GrokClassifier": {
    "Classification": "string",
    "CustomPatterns": "string",
    "GrokPattern": "string",
    "Name": "string"
  },
  "JsonClassifier": {
    "JsonPath": "string",
    "Name": "string"
  },
  "XMLClassifier": {
    "Classification": "string",
    "Name": "string",
    "RowTag": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## CsvClassifier

A `CsvClassifier` object with updated fields.

Type: [UpdateCsvClassifierRequest](#) object

Required: No

## GrokClassifier

A `GrokClassifier` object with updated fields.

Type: [UpdateGrokClassifierRequest](#) object

Required: No

## JsonClassifier

A `JsonClassifier` object with updated fields.

Type: [UpdateJsonClassifierRequest](#) object

Required: No

## XMLClassifier

An `XMLClassifier` object with updated fields.

Type: [UpdateXMLClassifierRequest](#) object

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400



## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## VersionMismatchException

There was a version conflict.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateColumnStatisticsForPartition

Creates or updates partition statistics of columns.

The Identity and Access Management (IAM) permission required for this operation is `UpdatePartition`.

## Request Syntax

```
{
  "CatalogId": "string",
  "ColumnStatisticsList": [
    {
      "AnalyzedTime": number,
      "ColumnName": "string",
      "ColumnType": "string",
      "StatisticsData": {
        "BinaryColumnStatisticsData": {
          "AverageLength": number,
          "MaximumLength": number,
          "NumberOfNulls": number
        },
        "BooleanColumnStatisticsData": {
          "NumberOfFalses": number,
          "NumberOfNulls": number,
          "NumberOfTrues": number
        },
        "DateColumnStatisticsData": {
          "MaximumValue": number,
          "MinimumValue": number,
          "NumberOfDistinctValues": number,
          "NumberOfNulls": number
        },
        "DecimalColumnStatisticsData": {
          "MaximumValue": {
            "Scale": number,
            "UnscaledValue": blob
          },
          "MinimumValue": {
            "Scale": number,
            "UnscaledValue": blob
          },
          "NumberOfDistinctValues": number,

```

```

        "NumberOfNulls": number
    },
    "DoubleColumnStatisticsData": {
        "MaximumValue": number,
        "MinimumValue": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
    },
    "LongColumnStatisticsData": {
        "MaximumValue": number,
        "MinimumValue": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
    },
    "StringColumnStatisticsData": {
        "AverageLength": number,
        "MaximumLength": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
    },
    "Type": "string"
}
}
],
"DatabaseName": "string",
"PartitionValues": [ "string" ],
"TableName": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partitions in question reside. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ColumnStatisticsList

A list of the column statistics.

Type: Array of [ColumnStatistics](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

Required: Yes

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionValues

A list of partition values identifying the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": [
    {
      "ColumnStatistics": {
        "AnalyzedTime": number,
        "ColumnName": "string",
        "ColumnType": "string",
        "StatisticsData": {
          "BinaryColumnStatisticsData": {
            "AverageLength": number,
            "MaximumLength": number,
            "NumberOfNulls": number
          },
          "BooleanColumnStatisticsData": {
            "NumberOfFalses": number,
            "NumberOfNulls": number,
            "NumberOfTrues": number
          },
          "DateColumnStatisticsData": {
            "MaximumValue": number,
            "MinimumValue": number,
            "NumberOfDistinctValues": number,
            "NumberOfNulls": number
          },
          "DecimalColumnStatisticsData": {
            "MaximumValue": {
              "Scale": number,
              "UnscaledValue": blob
            },
            "MinimumValue": {
              "Scale": number,
              "UnscaledValue": blob
            },
            "NumberOfDistinctValues": number,
            "NumberOfNulls": number
          },
          "DoubleColumnStatisticsData": {
            "MaximumValue": number,
            "MinimumValue": number,
            "NumberOfDistinctValues": number,
            "NumberOfNulls": number
          }
        }
      }
    }
  ]
}
```

```
    },
    "LongColumnStatisticsData": {
      "MaximumValue": number,
      "MinimumValue": number,
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "StringColumnStatisticsData": {
      "AverageLength": number,
      "MaximumLength": number,
      "NumberOfDistinctValues": number,
      "NumberOfNulls": number
    },
    "Type": "string"
  }
},
"Error": {
  "ErrorCode": "string",
  "ErrorMessage": "string"
}
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

Error occurred during updating column statistics data.

Type: Array of [ColumnStatisticsError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateColumnStatisticsForTable

Creates or updates table statistics of columns.

The Identity and Access Management (IAM) permission required for this operation is `UpdateTable`.

## Request Syntax

```
{
  "CatalogId": "string",
  "ColumnStatisticsList": [
    {
      "AnalyzedTime": number,
      "ColumnName": "string",
      "ColumnType": "string",
      "StatisticsData": {
        "BinaryColumnStatisticsData": {
          "AverageLength": number,
          "MaximumLength": number,
          "NumberOfNulls": number
        },
        "BooleanColumnStatisticsData": {
          "NumberOfFalses": number,
          "NumberOfNulls": number,
          "NumberOfTrues": number
        },
        "DateColumnStatisticsData": {
          "MaximumValue": number,
          "MinimumValue": number,
          "NumberOfDistinctValues": number,
          "NumberOfNulls": number
        },
        "DecimalColumnStatisticsData": {
          "MaximumValue": {
            "Scale": number,
            "UnscaledValue": blob
          },
          "MinimumValue": {
            "Scale": number,
            "UnscaledValue": blob
          },
          "NumberOfDistinctValues": number,

```



```
        "NumberOfNulls": number
      },
      "DoubleColumnStatisticsData": {
        "MaximumValue": number,
        "MinimumValue": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
      },
      "LongColumnStatisticsData": {
        "MaximumValue": number,
        "MinimumValue": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
      },
      "StringColumnStatisticsData": {
        "AverageLength": number,
        "MaximumLength": number,
        "NumberOfDistinctValues": number,
        "NumberOfNulls": number
      },
      "Type": "string"
    }
  ]
  "DatabaseName": "string",
  "TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CatalogId](#)

The ID of the Data Catalog where the partitions in question reside. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u00D8-\u00DC\u00DB-\u00FF\u00t]*`

Required: No

### ColumnStatisticsList

A list of the column statistics.

Type: Array of [ColumnStatistics](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

Required: Yes

### DatabaseName

The name of the catalog database where the partitions reside.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the partitions' table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
  "Errors": [
    {
      "ColumnStatistics": {
        "AnalyzedTime": number,
        "ColumnName": "string",
        "ColumnType": "string",
        "StatisticsData": {
```

```
"BinaryColumnStatisticsData": {
  "AverageLength": number,
  "MaximumLength": number,
  "NumberOfNulls": number
},
"BooleanColumnStatisticsData": {
  "NumberOfFalses": number,
  "NumberOfNulls": number,
  "NumberOfTrues": number
},
"DateColumnStatisticsData": {
  "MaximumValue": number,
  "MinimumValue": number,
  "NumberOfDistinctValues": number,
  "NumberOfNulls": number
},
"DecimalColumnStatisticsData": {
  "MaximumValue": {
    "Scale": number,
    "UnscaledValue": blob
  },
  "MinimumValue": {
    "Scale": number,
    "UnscaledValue": blob
  },
  "NumberOfDistinctValues": number,
  "NumberOfNulls": number
},
"DoubleColumnStatisticsData": {
  "MaximumValue": number,
  "MinimumValue": number,
  "NumberOfDistinctValues": number,
  "NumberOfNulls": number
},
"LongColumnStatisticsData": {
  "MaximumValue": number,
  "MinimumValue": number,
  "NumberOfDistinctValues": number,
  "NumberOfNulls": number
},
"StringColumnStatisticsData": {
  "AverageLength": number,
  "MaximumLength": number,
  "NumberOfDistinctValues": number,
```

```
        "NumberOfNulls": number
      },
      "Type": "string"
    }
  },
  "Error": {
    "ErrorCode": "string",
    "ErrorMessage": "string"
  }
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

List of ColumnStatisticsErrors.

Type: Array of [ColumnStatisticsError](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateConnection

Updates a connection definition in the Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "ConnectionInput": {
    "ConnectionProperties": {
      "string" : "string"
    },
    "ConnectionType": "string",
    "Description": "string",
    "MatchCriteria": [ "string" ],
    "Name": "string",
    "PhysicalConnectionRequirements": {
      "AvailabilityZone": "string",
      "SecurityGroupIdList": [ "string" ],
      "SubnetId": "string"
    }
  },
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog in which the connection resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: No

### ConnectionInput

A `ConnectionInput` object that redefines the connection in question.

Type: [ConnectionInput](#) object

Required: Yes

### Name

The name of the connection definition to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UpdateCrawler

Updates a crawler. If a crawler is running, you must stop it using `StopCrawler` before updating it.

## Request Syntax

```
{
  "Classifiers": [ "string" ],
  "Configuration": "string",
  "CrawlerSecurityConfiguration": "string",
  "DatabaseName": "string",
  "Description": "string",
  "LakeFormationConfiguration": {
    "AccountId": "string",
    "UseLakeFormationCredentials": boolean
  },
  "LineageConfiguration": {
    "CrawlerLineageSettings": "string"
  },
  "Name": "string",
  "RecrawlPolicy": {
    "RecrawlBehavior": "string"
  },
  "Role": "string",
  "Schedule": "string",
  "SchemaChangePolicy": {
    "DeleteBehavior": "string",
    "UpdateBehavior": "string"
  },
  "TablePrefix": "string",
  "Targets": {
    "CatalogTargets": [
      {
        "ConnectionName": "string",
        "DatabaseName": "string",
        "DlqEventQueueArn": "string",
        "EventQueueArn": "string",
        "Tables": [ "string" ]
      }
    ],
    "DeltaTargets": [
      {
        "ConnectionName": "string",
```

```
    "CreateNativeDeltaTable": boolean,
    "DeltaTables": [ "string" ],
    "WriteManifest": boolean
  }
],
"DynamoDBTargets": [
  {
    "Path": "string",
    "scanAll": boolean,
    "scanRate": number
  }
],
"HudiTargets": [
  {
    "ConnectionName": "string",
    "Exclusions": [ "string" ],
    "MaximumTraversalDepth": number,
    "Paths": [ "string" ]
  }
],
"IcebergTargets": [
  {
    "ConnectionName": "string",
    "Exclusions": [ "string" ],
    "MaximumTraversalDepth": number,
    "Paths": [ "string" ]
  }
],
"JdbcTargets": [
  {
    "ConnectionName": "string",
    "EnableAdditionalMetadate": [ "string" ],
    "Exclusions": [ "string" ],
    "Path": "string"
  }
],
"MongoDBTargets": [
  {
    "ConnectionName": "string",
    "Path": "string",
    "ScanAll": boolean
  }
],
"S3Targets": [
```

```
{
  {
    "ConnectionName": "string",
    "DlqEventQueueArn": "string",
    "EventQueueArn": "string",
    "Exclusions": [ "string" ],
    "Path": "string",
    "SampleSize": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [Classifiers](#)

A list of custom classifiers that the user has registered. By default, all built-in classifiers are included in a crawl, but these custom classifiers always override the default classifiers for a given classification.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### [Configuration](#)

Crawler configuration information. This versioned JSON string allows users to specify aspects of a crawler's behavior. For more information, see [Setting crawler configuration options](#).

Type: String

Required: No

### [CrawlerSecurityConfiguration](#)

The name of the SecurityConfiguration structure to be used by this crawler.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### DatabaseName

The AWS Glue database where results are stored, such as: `arn:aws:daylight:us-east-1::database/sometable/*`.

Type: String

Required: No

### Description

A description of the new crawler.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LakeFormationConfiguration

Specifies AWS Lake Formation configuration settings for the crawler.

Type: [LakeFormationConfiguration](#) object

Required: No

### LineageConfiguration

Specifies data lineage configuration settings for the crawler.

Type: [LineageConfiguration](#) object

Required: No

### Name

Name of the new crawler.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RecrawlPolicy

A policy that specifies whether to crawl the entire dataset again, or to crawl only folders that were added since the last crawler run.

Type: [RecrawlPolicy](#) object

Required: No

### Role

The IAM role or Amazon Resource Name (ARN) of an IAM role that is used by the new crawler to access customer resources.

Type: String

Required: No

### Schedule

A cron expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

Type: String

Required: No

### SchemaChangePolicy

The policy for the crawler's update and deletion behavior.

Type: [SchemaChangePolicy](#) object

Required: No

### TablePrefix

The table prefix used for catalog tables that are created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

## Targets

A list of targets to crawl.

Type: [CrawlerTargets](#) object

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **CrawlerRunningException**

The operation cannot be performed because the crawler is already running.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## VersionMismatchException

There was a version conflict.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateCrawlerSchedule

Updates the schedule of a crawler using a `cron` expression.

## Request Syntax

```
{
  "CrawlerName": "string",
  "Schedule": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CrawlerName](#)

The name of the crawler whose schedule to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### [Schedule](#)

The updated `cron` expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

Type: String

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.



## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **SchedulerTransitioningException**

The specified scheduler is transitioning.

HTTP Status Code: 400

### **VersionMismatchException**

There was a version conflict.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDatabase

Updates an existing database definition in a Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseInput": {
    "CreateTableDefaultPermissions": [
      {
        "Permissions": [ "string" ],
        "Principal": {
          "DataLakePrincipalIdentifier": "string"
        }
      }
    ],
    "Description": "string",
    "FederatedDatabase": {
      "ConnectionName": "string",
      "Identifier": "string"
    },
    "LocationUri": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "TargetDatabase": {
      "CatalogId": "string",
      "DatabaseName": "string",
      "Region": "string"
    }
  },
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## CatalogId

The ID of the Data Catalog in which the metadata database resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## DatabaseInput

A DatabaseInput object specifying the new definition of the metadata database in the catalog.

Type: [DatabaseInput](#) object

Required: Yes

## Name

The name of the database to update in the catalog. For Hive compatibility, this is folded to lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDataQualityRuleset

Updates the specified data quality ruleset.

## Request Syntax

```
{  
  "Description": "string",  
  "Name": "string",  
  "Ruleset": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description of the ruleset.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### Name

The name of the data quality ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Ruleset

A Data Quality Definition Language (DQDL) ruleset. For more information, see the AWS Glue developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Required: No

## Response Syntax

```
{
  "Description": "string",
  "Name": "string",
  "Ruleset": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Description

A description of the ruleset.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

### Name

The name of the data quality ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.



Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## **Ruleset**

A Data Quality Definition Language (DQDL) ruleset. For more information, see the AWS Glue developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **IdempotentParameterMismatchException**

The same unique identifier was associated with two different records.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ResourceNumberLimitExceededException

A resource numerical limit was exceeded.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDevEndpoint

Updates a specified development endpoint.

## Request Syntax

```
{
  "AddArguments": {
    "string" : "string"
  },
  "AddPublicKeys": [ "string" ],
  "CustomLibraries": {
    "ExtraJarsS3Path": "string",
    "ExtraPythonLibsS3Path": "string"
  },
  "DeleteArguments": [ "string" ],
  "DeletePublicKeys": [ "string" ],
  "EndpointName": "string",
  "PublicKey": "string",
  "UpdateEtlLibraries": boolean
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AddArguments

The map of arguments to add the map of arguments used to configure the DevEndpoint.

Valid arguments are:

- "--enable-glue-datacatalog": ""

You can specify a version of Python support for development endpoints by using the Arguments parameter in the CreateDevEndpoint or UpdateDevEndpoint APIs. If no arguments are provided, the version defaults to Python 2.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Required: No

### AddPublicKeys

The list of public keys for the DevEndpoint to use.

Type: Array of strings

Array Members: Maximum number of 5 items.

Required: No

### CustomLibraries

Custom Python or Java libraries to be loaded in the DevEndpoint.

Type: [DevEndpointCustomLibraries](#) object

Required: No

### DeleteArguments

The list of argument keys to be deleted from the map of arguments used to configure the DevEndpoint.

Type: Array of strings

Required: No

### DeletePublicKeys

The list of public keys to be deleted from the DevEndpoint.

Type: Array of strings

Array Members: Maximum number of 5 items.

Required: No

### EndpointName

The name of the DevEndpoint to be updated.

Type: String

Required: Yes

## PublicKey

The public key for the DevEndpoint to use.

Type: String

Required: No

## UpdateEtlLibraries

True if the list of custom libraries to be loaded in the development endpoint needs to be updated, or False if otherwise.

Type: Boolean

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### InternalServerError

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ValidationException

A value could not be validated.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateJob

Updates an existing job definition. The previous job definition is completely overwritten by this information.

## Request Syntax

```
{
  "JobName": "string",
  "JobUpdate": {
    "AllocatedCapacity": number,
    "CodeGenConfigurationNodes": {
      "string" : {
        "Aggregate": {
          "Aggs": [
            {
              "AggFunc": "string",
              "Column": [ "string" ]
            }
          ],
          "Groups": [
            [ "string" ]
          ],
          "Inputs": [ "string" ],
          "Name": "string"
        },
        "AmazonRedshiftSource": {
          "Data": {
            "AccessType": "string",
            "Action": "string",
            "AdvancedOptions": [
              {
                "Key": "string",
                "Value": "string"
              }
            ],
            "CatalogDatabase": {
              "Description": "string",
              "Label": "string",
              "Value": "string"
            },
            "CatalogRedshiftSchema": "string",
            "CatalogRedshiftTable": "string",
```

```
"CatalogTable": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"Connection": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"CrawlerConnection": "string",
"IamRole": {
  "Description": "string",
  "Label": "string",
  "Value": "string"
},
"MergeAction": "string",
"MergeClause": "string",
"MergeWhenMatched": "string",
"MergeWhenNotMatched": "string",
"PostAction": "string",
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    ]
}

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      ]
    }
  ]
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                    "Value": [ "string" ]
                }
            ]
        }
    ]
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    "PartitionKeys": [
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},
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    "TargetPath": [ "string" ]
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    "Name": "string",
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          "Type": "string"
        }
      ]
    }
  ],
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  "Table": "string"
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  "Inputs": [ "string" ],
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            "Type": "string"
          }
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      }
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    "SkipFirst": boolean,
    "WithHeader": boolean,
    "WriteHeader": boolean
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  "PartitionKeys": [
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  ],
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    "Table": "string",
    "UpdateBehavior": "string"
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  },
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    "BoundedSize": number,
    "EnableSamplePath": boolean,
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  }
}
```

```
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  }
}
```

```
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    ],
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    "Table": "string"
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    "PartitionKeys": [
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    ],
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      "EnableUpdateCatalog": boolean,
      "Table": "string",
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      "BoundedSize": number,
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  ],
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        }
      ]
    }
  ],
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  "OutputSchemas": [
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          "Type": "string"
        }
      ]
    }
  ],
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},
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  "Name": "string",
  "Paths": [
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  ]
},
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  "Index": number,
  "Inputs": [ "string" ],
  "Name": "string"
},
"SnowflakeSource": {
  "Data": {
    "Action": "string",
    "AdditionalOptions": {
      "string": "string"
    }
  }
}
```

```
    },
    "AutoPushdown": boolean,
    "Connection": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "Database": "string",
    "IamRole": {
      "Description": "string",
      "Label": "string",
      "Value": "string"
    },
    "MergeAction": "string",
    "MergeClause": "string",
    "MergeWhenMatched": "string",
    "MergeWhenNotMatched": "string",
    "PostAction": "string",
    "PreAction": "string",
    "SampleQuery": "string",
    "Schema": "string",
    "SelectedColumns": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "SourceType": "string",
    "StagingTable": "string",
    "Table": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Name": "string",
  "OutputSchemas": [
    {
```

```
        "Columns": [
            {
                "Name": "string",
                "Type": "string"
            }
        ]
    },
],
"SnowflakeTarget": {
    "Data": {
        "Action": "string",
        "AdditionalOptions": {
            "string": "string"
        },
        "AutoPushdown": boolean,
        "Connection": {
            "Description": "string",
            "Label": "string",
            "Value": "string"
        },
        "Database": "string",
        "IamRole": {
            "Description": "string",
            "Label": "string",
            "Value": "string"
        },
        "MergeAction": "string",
        "MergeClause": "string",
        "MergeWhenMatched": "string",
        "MergeWhenNotMatched": "string",
        "PostAction": "string",
        "PreAction": "string",
        "SampleQuery": "string",
        "Schema": "string",
        "SelectedColumns": [
            {
                "Description": "string",
                "Label": "string",
                "Value": "string"
            }
        ],
        "SourceType": "string",
        "StagingTable": "string",
```



```

    "Table": "string",
    "TableSchema": [
      {
        "Description": "string",
        "Label": "string",
        "Value": "string"
      }
    ],
    "TempDir": "string",
    "Upsert": boolean
  },
  "Inputs": [ "string" ],
  "Name": "string"
},
"SparkConnectorSource": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "ConnectionName": "string",
  "ConnectionType": "string",
  "ConnectorName": "string",
  "Name": "string",
  "OutputSchemas": [
    {
      "Columns": [
        {
          "Name": "string",
          "Type": "string"
        }
      ]
    }
  ]
},
"SparkConnectorTarget": {
  "AdditionalOptions": {
    "string" : "string"
  },
  "ConnectionName": "string",
  "ConnectionType": "string",
  "ConnectorName": "string",
  "Inputs": [ "string" ],
  "Name": "string",
  "OutputSchemas": [
    {

```

```
        "Columns": [
            {
                "Name": "string",
                "Type": "string"
            }
        ]
    },
    ],
    "SparkSQL": {
        "Inputs": [ "string" ],
        "Name": "string",
        "OutputSchemas": [
            {
                "Columns": [
                    {
                        "Name": "string",
                        "Type": "string"
                    }
                ]
            }
        ],
        "SqlAliases": [
            {
                "Alias": "string",
                "From": "string"
            }
        ],
        "SqlQuery": "string"
    },
    "Spigot": {
        "Inputs": [ "string" ],
        "Name": "string",
        "Path": "string",
        "Prob": number,
        "Topk": number
    },
    "SplitFields": {
        "Inputs": [ "string" ],
        "Name": "string",
        "Paths": [
            [ "string" ]
        ]
    }
},
```

```
    "Union": {
      "Inputs": [ "string" ],
      "Name": "string",
      "UnionType": "string"
    }
  },
  "Command": {
    "Name": "string",
    "PythonVersion": "string",
    "Runtime": "string",
    "ScriptLocation": "string"
  },
  "Connections": {
    "Connections": [ "string" ]
  },
  "DefaultArguments": {
    "string" : "string"
  },
  "Description": "string",
  "ExecutionClass": "string",
  "ExecutionProperty": {
    "MaxConcurrentRuns": number
  },
  "GlueVersion": "string",
  "LogUri": "string",
  "MaxCapacity": number,
  "MaxRetries": number,
  "NonOverridableArguments": {
    "string" : "string"
  },
  "NotificationProperty": {
    "NotifyDelayAfter": number
  },
  "NumberOfWorkers": number,
  "Role": "string",
  "SecurityConfiguration": "string",
  "SourceControlDetails": {
    "AuthStrategy": "string",
    "AuthToken": "string",
    "Branch": "string",
    "Folder": "string",
    "LastCommitId": "string",
    "Owner": "string",
```

```
    "Provider": "string",
    "Repository": "string"
  },
  "Timeout": number,
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job definition to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### JobUpdate

Specifies the values with which to update the job definition. Unspecified configuration is removed or reset to default values.

Type: [JobUpdate](#) object

Required: Yes

## Response Syntax

```
{
  "JobName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobName

Returns the name of the updated job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateJobFromSourceControl

Synchronizes a job from the source control repository. This operation takes the job artifacts that are located in the remote repository and updates the AWS Glue internal stores with these artifacts.

This API supports optional parameters which take in the repository information.

## Request Syntax

```
{
  "AuthStrategy": "string",
  "AuthToken": "string",
  "BranchName": "string",
  "CommitId": "string",
  "Folder": "string",
  "JobName": "string",
  "Provider": "string",
  "RepositoryName": "string",
  "RepositoryOwner": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AuthStrategy

The type of authentication, which can be an authentication token stored in AWS Secrets Manager, or a personal access token.

Type: String

Valid Values: PERSONAL\_ACCESS\_TOKEN | AWS\_SECRETS\_MANAGER

Required: No

### AuthToken

The value of the authorization token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### BranchName

An optional branch in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CommitId

A commit ID for a commit in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Folder

An optional folder in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobName

The name of the AWS Glue job to be synchronized to or from the remote repository.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Provider

The provider for the remote repository. Possible values: GITHUB, AWS\_CODE\_COMMIT, GITLAB, BITBUCKET.

Type: String

Valid Values: GITHUB | GITLAB | BITBUCKET | AWS\_CODE\_COMMIT

Required: No

### RepositoryName

The name of the remote repository that contains the job artifacts. For BitBucket providers, `RepositoryName` should include `WorkspaceName`. Use the format `<WorkspaceName>/<RepositoryName>`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### RepositoryOwner

The owner of the remote repository that contains the job artifacts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{  
  "JobName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobName

The name of the AWS Glue job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ValidationException

A value could not be validated.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateMLTransform

Updates an existing machine learning transform. Call this operation to tune the algorithm parameters to achieve better results.

After calling this operation, you can call the `StartMLEvaluationTaskRun` operation to assess how well your new parameters achieved your goals (such as improving the quality of your machine learning transform, or making it more cost-effective).

## Request Syntax

```
{
  "Description": "string",
  "GlueVersion": "string",
  "MaxCapacity": number,
  "MaxRetries": number,
  "Name": "string",
  "NumberOfWorkers": number,
  "Parameters": {
    "FindMatchesParameters": {
      "AccuracyCostTradeoff": number,
      "EnforceProvidedLabels": boolean,
      "PrecisionRecallTradeoff": number,
      "PrimaryKeyColumnName": "string"
    },
    "TransformType": "string"
  },
  "Role": "string",
  "Timeout": number,
  "TransformId": "string",
  "WorkerType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description of the transform. The default is an empty string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### GlueVersion

This value determines which version of AWS Glue this machine learning transform is compatible with. Glue 1.0 is recommended for most customers. If the value is not set, the Glue compatibility defaults to Glue 0.9. For more information, see [AWS Glue Versions](#) in the developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### MaxCapacity

The number of AWS Glue data processing units (DPUs) that are allocated to task runs for this transform. You can allocate from 2 to 100 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

When the `WorkerType` field is set to a value other than `Standard`, the `MaxCapacity` field is set automatically and becomes read-only.

Type: Double

Required: No

### MaxRetries

The maximum number of times to retry a task for this transform after a task run fails.

Type: Integer

Required: No

## Name

The unique name that you gave the transform when you created it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when this task runs.

Type: Integer

Required: No

## Parameters

The configuration parameters that are specific to the transform type (algorithm) used. Conditionally dependent on the transform type.

Type: [TransformParameters](#) object

Required: No

## Role

The name or Amazon Resource Name (ARN) of the IAM role with the required permissions.

Type: String

Required: No

## Timeout

The timeout for a task run for this transform in minutes. This is the maximum time that a task run for this transform can consume resources before it is terminated and enters `TIMEOUT` status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### TransformId

A unique identifier that was generated when the transform was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### WorkerType

The type of predefined worker that is allocated when this task runs. Accepts a value of Standard, G.1X, or G.2X.

- For the Standard worker type, each worker provides 4 vCPU, 16 GB of memory and a 50GB disk, and 2 executors per worker.
- For the G.1X worker type, each worker provides 4 vCPU, 16 GB of memory and a 64GB disk, and 1 executor per worker.
- For the G.2X worker type, each worker provides 8 vCPU, 32 GB of memory and a 128GB disk, and 1 executor per worker.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## Response Syntax

```
{  
  "TransformId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TransformId

The unique identifier for the transform that was updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdatePartition

Updates a partition.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "PartitionInput": {
    "LastAccessTime": number,
    "LastAnalyzedTime": number,
    "Parameters": {
      "string" : "string"
    },
    "StorageDescriptor": {
      "AdditionalLocations": [ "string" ],
      "BucketColumns": [ "string" ],
      "Columns": [
        {
          "Comment": "string",
          "Name": "string",
          "Parameters": {
            "string" : "string"
          },
          "Type": "string"
        }
      ],
      "Compressed": boolean,
      "InputFormat": "string",
      "Location": "string",
      "NumberOfBuckets": number,
      "OutputFormat": "string",
      "Parameters": {
        "string" : "string"
      },
      "SchemaReference": {
        "SchemaId": {
          "RegistryName": "string",
          "SchemaArn": "string",
          "SchemaName": "string"
        },
        "SchemaVersionId": "string",
```

```
    "SchemaVersionNumber": number
  },
  "SerdeInfo": {
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "SerializationLibrary": "string"
  },
  "SkewedInfo": {
    "SkewedColumnNames": [ "string" ],
    "SkewedColumnValueLocationMaps": {
      "string" : "string"
    },
    "SkewedColumnValues": [ "string" ]
  },
  "SortColumns": [
    {
      "Column": "string",
      "SortOrder": number
    }
  ],
  "StoredAsSubDirectories": boolean
},
"Values": [ "string" ]
},
"PartitionValueList": [ "string" ],
"TableName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the partition to be updated resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database in which the table in question resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### PartitionInput

The new partition object to update the partition to.

The `Values` property can't be changed. If you want to change the partition key values for a partition, delete and recreate the partition.

Type: [PartitionInput](#) object

Required: Yes

### PartitionValueList

List of partition key values that define the partition to update.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Maximum length of 1024.

Required: Yes

### TableName

The name of the table in which the partition to be updated is located.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### GlueEncryptionException

An encryption operation failed.

HTTP Status Code: 400

### InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

### InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

### OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## Response Syntax

```
{  
  "RegistryArn": "string",  
  "RegistryName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### RegistryArn

The Amazon Resource name (ARN) of the updated registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: arn:(aws|aws-us-gov|aws-cn):glue:.\*

### RegistryName

The name of the updated registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#.]+

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400



## ConcurrentModificationException

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateSchema

Updates the description, compatibility setting, or version checkpoint for a schema set.

For updating the compatibility setting, the call will not validate compatibility for the entire set of schema versions with the new compatibility setting. If the value for `Compatibility` is provided, the `VersionNumber` (a checkpoint) is also required. The API will validate the checkpoint version number for consistency.

If the value for the `VersionNumber` (checkpoint) is provided, `Compatibility` is optional and this can be used to set/reset a checkpoint for the schema.

This update will happen only if the schema is in the `AVAILABLE` state.

## Request Syntax

```
{
  "Compatibility": "string",
  "Description": "string",
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionNumber": {
    "LatestVersion": boolean,
    "VersionNumber": number
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Compatibility

The new compatibility setting for the schema.

Type: String



```
"SchemaArn": "string",  
"SchemaName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [RegistryName](#)

The name of the registry that contains the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#.]+

### [SchemaArn](#)

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: arn:(aws|aws-us-gov|aws-cn):glue:.\*

### [SchemaName](#)

The name of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#.]+

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## AccessDeniedException

Access to a resource was denied.

HTTP Status Code: 400

## ConcurrentModificationException

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateSourceControlFromJob

Synchronizes a job to the source control repository. This operation takes the job artifacts from the AWS Glue internal stores and makes a commit to the remote repository that is configured on the job.

This API supports optional parameters which take in the repository information.

## Request Syntax

```
{
  "AuthStrategy": "string",
  "AuthToken": "string",
  "BranchName": "string",
  "CommitId": "string",
  "Folder": "string",
  "JobName": "string",
  "Provider": "string",
  "RepositoryName": "string",
  "RepositoryOwner": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AuthStrategy

The type of authentication, which can be an authentication token stored in AWS Secrets Manager, or a personal access token.

Type: String

Valid Values: PERSONAL\_ACCESS\_TOKEN | AWS\_SECRETS\_MANAGER

Required: No

### AuthToken

The value of the authorization token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **BranchName**

An optional branch in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **CommitId**

A commit ID for a commit in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Folder**

An optional folder in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **JobName**

The name of the AWS Glue job to be synchronized to or from the remote repository.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Provider

The provider for the remote repository. Possible values: GITHUB, AWS\_CODE\_COMMIT, GITLAB, BITBUCKET.

Type: String

Valid Values: GITHUB | GITLAB | BITBUCKET | AWS\_CODE\_COMMIT

Required: No

### RepositoryName

The name of the remote repository that contains the job artifacts. For BitBucket providers, `RepositoryName` should include `WorkspaceName`. Use the format `<WorkspaceName>/<RepositoryName>`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### RepositoryOwner

The owner of the remote repository that contains the job artifacts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Response Syntax

```
{  
  "JobName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobName

The name of the AWS Glue job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **AlreadyExistsException**

A resource to be created or added already exists.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## InternalServiceException

An internal service error occurred.

HTTP Status Code: 500

## InvalidInputException

The input provided was not valid.

HTTP Status Code: 400

## OperationTimeoutException

The operation timed out.

HTTP Status Code: 400

## ValidationException

A value could not be validated.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateTable

Updates a metadata table in the Data Catalog.

## Request Syntax

```
{
  "CatalogId": "string",
  "DatabaseName": "string",
  "SkipArchive": boolean,
  "TableInput": {
    "Description": "string",
    "LastAccessTime": number,
    "LastAnalyzedTime": number,
    "Name": "string",
    "Owner": "string",
    "Parameters": {
      "string" : "string"
    },
    "PartitionKeys": [
      {
        "Comment": "string",
        "Name": "string",
        "Parameters": {
          "string" : "string"
        },
        "Type": "string"
      }
    ],
    "Retention": number,
    "StorageDescriptor": {
      "AdditionalLocations": [ "string" ],
      "BucketColumns": [ "string" ],
      "Columns": [
        {
          "Comment": "string",
          "Name": "string",
          "Parameters": {
            "string" : "string"
          },
          "Type": "string"
        }
      ]
    },
  ],
}
```

```
"Compressed": boolean,
"InputFormat": "string",
"Location": "string",
"NumberOfBuckets": number,
"OutputFormat": "string",
"Parameters": {
  "string" : "string"
},
"SchemaReference": {
  "SchemaId": {
    "RegistryName": "string",
    "SchemaArn": "string",
    "SchemaName": "string"
  },
  "SchemaVersionId": "string",
  "SchemaVersionNumber": number
},
"SerdeInfo": {
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "SerializationLibrary": "string"
},
"SkewedInfo": {
  "SkewedColumnNames": [ "string" ],
  "SkewedColumnValueLocationMaps": {
    "string" : "string"
  },
  "SkewedColumnValues": [ "string" ]
},
"SortColumns": [
  {
    "Column": "string",
    "SortOrder": number
  }
],
"StoredAsSubDirectories": boolean
},
"TableType": "string",
"TargetTable": {
  "CatalogId": "string",
  "DatabaseName": "string",
  "Name": "string",
```

```
    "Region": "string",
  },
  "ViewExpandedText": "string",
  "ViewOriginalText": "string"
},
"TransactionId": "string",
"VersionId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CatalogId

The ID of the Data Catalog where the table resides. If none is provided, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database in which the table resides. For Hive compatibility, this name is entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### SkipArchive

By default, `UpdateTable` always creates an archived version of the table before updating it. However, if `skipArchive` is set to `true`, `UpdateTable` does not create the archived version.



### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

### **ResourceNotReadyException**

A resource was not ready for a transaction.

HTTP Status Code: 400

### **ResourceNumberLimitExceededException**

A resource numerical limit was exceeded.

HTTP Status Code: 400



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



Required: Yes

### TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableOptimizerConfiguration

A `TableOptimizerConfiguration` object representing the configuration of a table optimizer.

Type: [TableOptimizerConfiguration](#) object

Required: Yes

### Type

The type of table optimizer. Currently, the only valid value is `compaction`.

Type: String

Valid Values: `compaction`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Access to a resource was denied.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServerErrorException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateTrigger

Updates a trigger definition.

## Request Syntax

```
{
  "Name": "string",
  "TriggerUpdate": {
    "Actions": [
      {
        "Arguments": {
          "string": "string"
        },
        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
          "NotifyDelayAfter": number
        },
        "SecurityConfiguration": "string",
        "Timeout": number
      }
    ],
    "Description": "string",
    "EventBatchingCondition": {
      "BatchSize": number,
      "BatchWindow": number
    },
    "Name": "string",
    "Predicate": {
      "Conditions": [
        {
          "CrawlerName": "string",
          "CrawlState": "string",
          "JobName": "string",
          "LogicalOperator": "string",
          "State": "string"
        }
      ],
      "Logical": "string"
    },
    "Schedule": "string"
  }
}
```

```
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the trigger to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TriggerUpdate

The new values with which to update the trigger.

Type: [TriggerUpdate](#) object

Required: Yes

## Response Syntax

```
{
  "Trigger": {
    "Actions": [
      {
        "Arguments": {
          "string" : "string"
        },
        "CrawlerName": "string",
        "JobName": "string",
        "NotificationProperty": {
          "NotifyDelayAfter": number
        },
        "SecurityConfiguration": "string",
        "Timeout": number
      }
    ]
  }
}
```

```
    }
  ],
  "Description": "string",
  "EventBatchingCondition": {
    "BatchSize": number,
    "BatchWindow": number
  },
  "Id": "string",
  "Name": "string",
  "Predicate": {
    "Conditions": [
      {
        "CrawlerName": "string",
        "CrawlState": "string",
        "JobName": "string",
        "LogicalOperator": "string",
        "State": "string"
      }
    ],
    "Logical": "string"
  },
  "Schedule": "string",
  "State": "string",
  "Type": "string",
  "WorkflowName": "string"
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Trigger

The resulting trigger definition.

Type: [Trigger](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

## **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

## **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

## **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

## **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)



- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## DatabaseName

The name of the catalog database where the function to be updated is located.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## FunctionInput

A `FunctionInput` object that redefines the function in the Data Catalog.

Type: [UserDefinedFunctionInput](#) object

Required: Yes

## FunctionName

The name of the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### EntityNotFoundException

A specified entity does not exist

HTTP Status Code: 400

### **GlueEncryptionException**

An encryption operation failed.

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



component jobs. If you leave this parameter blank, there is no limit to the number of concurrent workflow runs.

Type: Integer

Required: No

### Name

Name of the workflow to be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{  
  "Name": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Name

The name of the workflow which was specified in input.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConcurrentModificationException**

Two processes are trying to modify a resource simultaneously.

HTTP Status Code: 400

### **EntityNotFoundException**

A specified entity does not exist

HTTP Status Code: 400

### **InternalServiceException**

An internal service error occurred.

HTTP Status Code: 500

### **InvalidInputException**

The input provided was not valid.

HTTP Status Code: 400

### **OperationTimeoutException**

The operation timed out.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# Data Types

The AWS Glue API contains several data types that various actions use. This section describes each data type in detail.

## Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [Action](#)
- [Aggregate](#)
- [AggregateOperation](#)
- [AmazonRedshiftAdvancedOption](#)
- [AmazonRedshiftNodeData](#)
- [AmazonRedshiftSource](#)
- [AmazonRedshiftTarget](#)
- [ApplyMapping](#)
- [AthenaConnectorSource](#)
- [AuditContext](#)
- [BackfillError](#)
- [BasicCatalogTarget](#)
- [BatchGetTableOptimizerEntry](#)
- [BatchGetTableOptimizerError](#)
- [BatchStopJobRunError](#)
- [BatchStopJobRunSuccessfulSubmission](#)
- [BatchTableOptimizer](#)
- [BatchUpdatePartitionFailureEntry](#)
- [BatchUpdatePartitionRequestEntry](#)
- [BinaryColumnStatisticsData](#)

- [Blueprint](#)
- [BlueprintDetails](#)
- [BlueprintRun](#)
- [BooleanColumnStatisticsData](#)
- [CatalogDeltaSource](#)
- [CatalogEntry](#)
- [CatalogHudiSource](#)
- [CatalogImportStatus](#)
- [CatalogKafkaSource](#)
- [CatalogKinesisSource](#)
- [CatalogSchemaChangePolicy](#)
- [CatalogSource](#)
- [CatalogTarget](#)
- [Classifier](#)
- [CloudWatchEncryption](#)
- [CodeGenConfigurationNode](#)
- [CodeGenEdge](#)
- [CodeGenNode](#)
- [CodeGenNodeArg](#)
- [Column](#)
- [ColumnError](#)
- [ColumnImportance](#)
- [ColumnRowFilter](#)
- [ColumnStatistics](#)
- [ColumnStatisticsData](#)
- [ColumnStatisticsError](#)
- [ColumnStatisticsTaskRun](#)
- [Condition](#)
- [ConfusionMatrix](#)
- [Connection](#)

- [ConnectionInput](#)
- [ConnectionPasswordEncryption](#)
- [ConnectionsList](#)
- [ConnectorDataSource](#)
- [ConnectorDataTarget](#)
- [Crawl](#)
- [Crawler](#)
- [CrawlerHistory](#)
- [CrawlerMetrics](#)
- [CrawlerNodeDetails](#)
- [CrawlerTargets](#)
- [CrawlsFilter](#)
- [CreateCsvClassifierRequest](#)
- [CreateGrokClassifierRequest](#)
- [CreateJsonClassifierRequest](#)
- [CreateXMLClassifierRequest](#)
- [CsvClassifier](#)
- [CustomCode](#)
- [CustomEntityType](#)
- [Database](#)
- [DatabaseIdentifier](#)
- [DatabaseInput](#)
- [DataCatalogEncryptionSettings](#)
- [DataLakePrincipal](#)
- [DataQualityAnalyzerResult](#)
- [DataQualityEvaluationRunAdditionalRunOptions](#)
- [DataQualityMetricValues](#)
- [DataQualityObservation](#)
- [DataQualityResult](#)
- [DataQualityResultDescription](#)

- [DataQualityResultFilterCriteria](#)
- [DataQualityRuleRecommendationRunDescription](#)
- [DataQualityRuleRecommendationRunFilter](#)
- [DataQualityRuleResult](#)
- [DataQualityRulesetEvaluationRunDescription](#)
- [DataQualityRulesetEvaluationRunFilter](#)
- [DataQualityRulesetFilterCriteria](#)
- [DataQualityRulesetListDetails](#)
- [DataQualityTargetTable](#)
- [DataSource](#)
- [Datatype](#)
- [DateColumnStatisticsData](#)
- [DecimalColumnStatisticsData](#)
- [DecimalNumber](#)
- [DeltaTarget](#)
- [DevEndpoint](#)
- [DevEndpointCustomLibraries](#)
- [DirectJDBCSource](#)
- [DirectKafkaSource](#)
- [DirectKinesisSource](#)
- [DirectSchemaChangePolicy](#)
- [DoubleColumnStatisticsData](#)
- [DQResultsPublishingOptions](#)
- [DQStopJobOnFailureOptions](#)
- [DropDuplicates](#)
- [DropFields](#)
- [DropNullFields](#)
- [DynamicTransform](#)
- [DynamoDBCatalogSource](#)
- [DynamoDBTarget](#)

- [Edge](#)
- [EncryptionAtRest](#)
- [EncryptionConfiguration](#)
- [ErrorDetail](#)
- [ErrorDetails](#)
- [EvaluateDataQuality](#)
- [EvaluateDataQualityMultiFrame](#)
- [EvaluationMetrics](#)
- [EventBatchingCondition](#)
- [ExecutionProperty](#)
- [ExportLabelsTaskRunProperties](#)
- [FederatedDatabase](#)
- [FederatedTable](#)
- [FillMissingValues](#)
- [Filter](#)
- [FilterExpression](#)
- [FilterValue](#)
- [FindMatchesMetrics](#)
- [FindMatchesParameters](#)
- [FindMatchesTaskRunProperties](#)
- [GetConnectionsFilter](#)
- [GluePolicy](#)
- [GlueSchema](#)
- [GlueStudioSchemaColumn](#)
- [GlueTable](#)
- [GovernedCatalogSource](#)
- [GovernedCatalogTarget](#)
- [GrokClassifier](#)
- [HudiTarget](#)
- [IcebergInput](#)

- [IcebergTarget](#)
- [ImportLabelsTaskRunProperties](#)
- [JDBCConectorOptions](#)
- [JDBCConectorSource](#)
- [JDBCConectorTarget](#)
- [JdbcTarget](#)
- [Job](#)
- [JobBookmarkEntry](#)
- [JobBookmarksEncryption](#)
- [JobCommand](#)
- [JobNodeDetails](#)
- [JobRun](#)
- [JobUpdate](#)
- [Join](#)
- [JoinColumn](#)
- [JsonClassifier](#)
- [KafkaStreamingSourceOptions](#)
- [KeySchemaElement](#)
- [KinesisStreamingSourceOptions](#)
- [LabelingSetGenerationTaskRunProperties](#)
- [LakeFormationConfiguration](#)
- [LastActiveDefinition](#)
- [LastCrawlInfo](#)
- [LineageConfiguration](#)
- [Location](#)
- [LongColumnStatisticsData](#)
- [Mapping](#)
- [MappingEntry](#)
- [Merge](#)
- [MetadataInfo](#)

- [MetadataKeyValuePair](#)
- [MetricBasedObservation](#)
- [MicrosoftSQLServerCatalogSource](#)
- [MicrosoftSQLServerCatalogTarget](#)
- [MLTransform](#)
- [MLUserDataEncryption](#)
- [MongoDBTarget](#)
- [MySQLCatalogSource](#)
- [MySQLCatalogTarget](#)
- [Node](#)
- [NotificationProperty](#)
- [NullCheckBoxList](#)
- [NullValueField](#)
- [OpenTableFormatInput](#)
- [Option](#)
- [OracleSQLCatalogSource](#)
- [OracleSQLCatalogTarget](#)
- [Order](#)
- [OtherMetadataValueListItem](#)
- [Partition](#)
- [PartitionError](#)
- [PartitionIndex](#)
- [PartitionIndexDescriptor](#)
- [PartitionInput](#)
- [PartitionValueList](#)
- [PhysicalConnectionRequirements](#)
- [PIIDetection](#)
- [PostgreSQLCatalogSource](#)
- [PostgreSQLCatalogTarget](#)
- [Predecessor](#)

- [Predicate](#)
- [PrincipalPermissions](#)
- [PropertyPredicate](#)
- [QuerySessionContext](#)
- [Recipe](#)
- [RecipeReference](#)
- [RecrawlPolicy](#)
- [RedshiftSource](#)
- [RedshiftTarget](#)
- [RegistryId](#)
- [RegistryListItem](#)
- [RelationalCatalogSource](#)
- [RenameField](#)
- [ResourceUri](#)
- [RunMetrics](#)
- [S3CatalogDeltaSource](#)
- [S3CatalogHudiSource](#)
- [S3CatalogSource](#)
- [S3CatalogTarget](#)
- [S3CsvSource](#)
- [S3DeltaCatalogTarget](#)
- [S3DeltaDirectTarget](#)
- [S3DeltaSource](#)
- [S3DirectSourceAdditionalOptions](#)
- [S3DirectTarget](#)
- [S3Encryption](#)
- [S3GlueParquetTarget](#)
- [S3HudiCatalogTarget](#)
- [S3HudiDirectTarget](#)
- [S3HudiSource](#)



- [S3JsonSource](#)
- [S3ParquetSource](#)
- [S3SourceAdditionalOptions](#)
- [S3Target](#)
- [Schedule](#)
- [SchemaChangePolicy](#)
- [SchemaColumn](#)
- [SchemaId](#)
- [SchemaListItem](#)
- [SchemaReference](#)
- [SchemaVersionErrorItem](#)
- [SchemaVersionListItem](#)
- [SchemaVersionNumber](#)
- [SecurityConfiguration](#)
- [Segment](#)
- [SelectFields](#)
- [SelectFromCollection](#)
- [SerDeInfo](#)
- [Session](#)
- [SessionCommand](#)
- [SkewedInfo](#)
- [SnowflakeNodeData](#)
- [SnowflakeSource](#)
- [SnowflakeTarget](#)
- [SortCriterion](#)
- [SourceControlDetails](#)
- [SparkConnectorSource](#)
- [SparkConnectorTarget](#)
- [SparkSQL](#)
- [Spigot](#)

- [SplitFields](#)
- [SqlAlias](#)
- [StartingEventBatchCondition](#)
- [Statement](#)
- [StatementOutput](#)
- [StatementOutputData](#)
- [StorageDescriptor](#)
- [StreamingDataPreviewOptions](#)
- [StringColumnStatisticsData](#)
- [SupportedDialect](#)
- [Table](#)
- [TableError](#)
- [TableIdentifier](#)
- [TableInput](#)
- [TableOptimizer](#)
- [TableOptimizerConfiguration](#)
- [TableOptimizerRun](#)
- [TableVersion](#)
- [TableVersionError](#)
- [TaskRun](#)
- [TaskRunFilterCriteria](#)
- [TaskRunProperties](#)
- [TaskRunSortCriteria](#)
- [TransformConfigParameter](#)
- [TransformEncryption](#)
- [TransformFilterCriteria](#)
- [TransformParameters](#)
- [TransformSortCriteria](#)
- [Trigger](#)
- [TriggerNodeDetails](#)

- [TriggerUpdate](#)
- [UnfilteredPartition](#)
- [Union](#)
- [UpdateCsvClassifierRequest](#)
- [UpdateGrokClassifierRequest](#)
- [UpdateJsonClassifierRequest](#)
- [UpdateXMLClassifierRequest](#)
- [UpsertRedshiftTargetOptions](#)
- [UserDefinedFunction](#)
- [UserDefinedFunctionInput](#)
- [ViewDefinition](#)
- [ViewRepresentation](#)
- [Workflow](#)
- [WorkflowGraph](#)
- [WorkflowRun](#)
- [WorkflowRunStatistics](#)
- [XMLClassifier](#)

# Action

Defines an action to be initiated by a trigger.

## Contents

### Arguments

The job arguments used when this trigger fires. For this job run, they replace the default arguments set in the job definition itself.

You can specify arguments here that your own job-execution script consumes, as well as arguments that AWS Glue itself consumes.

For information about how to specify and consume your own Job arguments, see the [Calling AWS Glue APIs in Python](#) topic in the developer guide.

For information about the key-value pairs that AWS Glue consumes to set up your job, see the [Special Parameters Used by AWS Glue](#) topic in the developer guide.

Type: String to string map

Required: No

### CrawlerName

The name of the crawler to be used with this action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobName

The name of a job to be run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **NotificationProperty**

Specifies configuration properties of a job run notification.

Type: [NotificationProperty](#) object

Required: No

### **SecurityConfiguration**

The name of the SecurityConfiguration structure to be used with this action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Timeout**

The JobRun timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours). This overrides the timeout value set in the parent job.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# Aggregate

Specifies a transform that groups rows by chosen fields and computes the aggregated value by specified function.

## Contents

### Aggs

Specifies the aggregate functions to be performed on specified fields.

Type: Array of [AggregateOperation](#) objects

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Required: Yes

### Groups

Specifies the fields to group by.

Type: Array of arrays of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF] | [^\\S\\x\\n"']`)\*

Required: Yes

### Inputs

Specifies the fields and rows to use as inputs for the aggregate transform.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]| [^\\r\\n]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AggregateOperation

Specifies the set of parameters needed to perform aggregation in the aggregate transform.

## Contents

### AggFunc

Specifies the aggregation function to apply.

Possible aggregation functions include: avg countDistinct, count, first, last, kurtosis, max, min, skewness, stddev\_samp, stddev\_pop, sum, sumDistinct, var\_samp, var\_pop

Type: String

Valid Values: avg | countDistinct | count | first | last | kurtosis | max | min | skewness | stddev\_samp | stddev\_pop | sum | sumDistinct | var\_samp | var\_pop

Required: Yes

### Column

Specifies the column on the data set on which the aggregation function will be applied.

Type: Array of strings

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]` | `[\^S\r\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AmazonRedshiftAdvancedOption

Specifies an optional value when connecting to the Redshift cluster.

## Contents

### Key

The key for the additional connection option.

Type: String

Required: No

### Value

The value for the additional connection option.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AmazonRedshiftNodeData

Specifies an Amazon Redshift node.

## Contents

### AccessType

The access type for the Redshift connection. Can be a direct connection or catalog connections.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### Action

Specifies how writing to a Redshift cluster will occur.

Type: String

Required: No

### AdvancedOptions

Optional values when connecting to the Redshift cluster.

Type: Array of [AmazonRedshiftAdvancedOption](#) objects

Required: No

### CatalogDatabase

The name of the AWS Glue Data Catalog database when working with a data catalog.

Type: [Option](#) object

Required: No

### CatalogRedshiftSchema

The Redshift schema name when working with a data catalog.

Type: String

Required: No

### **CatalogRedshiftTable**

The database table to read from.

Type: String

Required: No

### **CatalogTable**

The AWS Glue Data Catalog table name when working with a data catalog.

Type: [Option](#) object

Required: No

### **Connection**

The AWS Glue connection to the Redshift cluster.

Type: [Option](#) object

Required: No

### **CrawlerConnection**

Specifies the name of the connection that is associated with the catalog table used.

Type: String

Required: No

### **IamRole**

Optional. The role name use when connection to S3. The IAM role ill default to the role on the job when left blank.

Type: [Option](#) object

Required: No

### **MergeAction**

The action used when to detemine how a MERGE in a Redshift sink will be handled.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### **MergeClause**

The SQL used in a custom merge to deal with matching records.

Type: String

Required: No

### **MergeWhenMatched**

The action used when to determine how a MERGE in a Redshift sink will be handled when an existing record matches a new record.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### **MergeWhenNotMatched**

The action used when to determine how a MERGE in a Redshift sink will be handled when an existing record doesn't match a new record.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### **PostAction**

The SQL used before a MERGE or APPEND with upsert is run.

Type: String

Required: No

### **PreAction**

The SQL used before a MERGE or APPEND with upsert is run.

Type: String

Required: No

### SampleQuery

The SQL used to fetch the data from a Redshift sources when the SourceType is 'query'.

Type: String

Required: No

### Schema

The Redshift schema name when working with a direct connection.

Type: [Option](#) object

Required: No

### SelectedColumns

The list of column names used to determine a matching record when doing a MERGE or APPEND with upsert.

Type: Array of [Option](#) objects

Required: No

### SourceType

The source type to specify whether a specific table is the source or a custom query.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### StagingTable

The name of the temporary staging table that is used when doing a MERGE or APPEND with upsert.

Type: String





## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AmazonRedshiftSource

Specifies an Amazon Redshift source.

## Contents

### Data

Specifies the data of the Amazon Redshift source node.

Type: [AmazonRedshiftNodeData](#) object

Required: No

### Name

The name of the Amazon Redshift source.

Type: String

Pattern: (`[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]` | `[\^\r\n]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AmazonRedshiftTarget

Specifies an Amazon Redshift target.

## Contents

### Data

Specifies the data of the Amazon Redshift target node.

Type: [AmazonRedshiftNodeData](#) object

Required: No

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: No

### Name

The name of the Amazon Redshift target.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# ApplyMapping

Specifies a transform that maps data property keys in the data source to data property keys in the data target. You can rename keys, modify the data types for keys, and choose which keys to drop from the dataset.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Mapping

Specifies the mapping of data property keys in the data source to data property keys in the data target.

Type: Array of [Mapping](#) objects

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF] | [^\r\n])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AthenaConnectorSource

Specifies a connector to an Amazon Athena data source.

## Contents

### ConnectionName

The name of the connection that is associated with the connector.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### ConnectionType

The type of connection, such as `marketplace.athena` or `custom.athena`, designating a connection to an Amazon Athena data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### ConnectorName

The name of a connector that assists with accessing the data store in AWS Glue Studio.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### SchemaName

The name of the Cloudwatch log group to read from. For example, `/aws-glue/jobs/output`.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### ConnectionTable

The name of the table in the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n]`)\*

Required: No

### OutputSchemas

Specifies the data schema for the custom Athena source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# AuditContext

A structure containing the Lake Formation audit context.

## Contents

### **AdditionalAuditContext**

A string containing the additional audit context information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: No

### **AllColumnsRequested**

All columns request for audit.

Type: Boolean

Required: No

### **RequestedColumns**

The requested columns for audit.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# BackfillError

A list of errors that can occur when registering partition indexes for an existing table.

These errors give the details about why an index registration failed and provide a limited number of partitions in the response, so that you can fix the partitions at fault and try registering the index again. The most common set of errors that can occur are categorized as follows:

- **EncryptedPartitionError**: The partitions are encrypted.
- **InvalidPartitionTypeDataError**: The partition value doesn't match the data type for that partition column.
- **MissingPartitionValueError**: The partitions are encrypted.
- **UnsupportedPartitionCharacterError**: Characters inside the partition value are not supported. For example: U+0000 , U+0001, U+0002.
- **InternalError**: Any error which does not belong to other error codes.

## Contents

### Code

The error code for an error that occurred when registering partition indexes for an existing table.

Type: String

Valid Values: ENCRYPTED\_PARTITION\_ERROR | INTERNAL\_ERROR | INVALID\_PARTITION\_TYPE\_DATA\_ERROR | MISSING\_PARTITION\_VALUE\_ERROR | UNSUPPORTED\_PARTITION\_CHARACTER\_ERROR

Required: No

### Partitions

A list of a limited number of partitions in the response.

Type: Array of [PartitionValueList](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BasicCatalogTarget

Specifies a target that uses a AWS Glue Data Catalog table.

## Contents

### Database

The database that contains the table you want to use as the target. This database must already exist in the Data Catalog.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of your data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The table that defines the schema of your output data. This table must already exist in the Data Catalog.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetTableOptimizerEntry

Represents a table optimizer to retrieve in the `BatchGetTableOptimizer` operation.

## Contents

### **catalogId**

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **databaseName**

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### **tableName**

The name of the table.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### **type**

The type of table optimizer.

Type: String

Valid Values: `compaction`



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetTableOptimizerError

Contains details on one of the errors in the error list returned by the `BatchGetTableOptimizer` operation.

## Contents

### **catalogId**

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **databaseName**

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### **error**

An `ErrorDetail` object containing code and message details about the error.

Type: [ErrorDetail](#) object

Required: No

### **tableName**

The name of the table.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### **type**

The type of table optimizer.

Type: String

Valid Values: `compaction`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchStopJobRunError

Records an error that occurred when attempting to stop a specified job run.

## Contents

### ErrorDetail

Specifies details about the error that was encountered.

Type: [ErrorDetail](#) object

Required: No

### JobName

The name of the job definition that is used in the job run in question.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobRunId

The JobRunId of the job run in question.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchStopJobRunSuccessfulSubmission

Records a successful request to stop a specified JobRun.

## Contents

### JobName

The name of the job definition used in the job run that was stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobRunId

The JobRunId of the job run that was stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchTableOptimizer

Contains details for one of the table optimizers returned by the `BatchGetTableOptimizer` operation.

## Contents

### catalogId

The Catalog ID of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### databaseName

The name of the database in the catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### tableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### tableOptimizer

A `TableOptimizer` object that contains details on the configuration and last run of a table optimizer.

Type: [TableOptimizer](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# BatchUpdatePartitionFailureEntry

Contains information about a batch update partition error.

## Contents

### ErrorDetail

The details about the batch update partition error.

Type: [ErrorDetail](#) object

Required: No

### PartitionValueList

A list of values defining the partitions.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchUpdatePartitionRequestEntry

A structure that contains the values and structure used to update a partition.

## Contents

### PartitionInput

The structure used to update a partition.

Type: [PartitionInput](#) object

Required: Yes

### PartitionValueList

A list of values defining the partitions.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BinaryColumnStatisticsData

Defines column statistics supported for bit sequence data values.

## Contents

### AverageLength

The average bit sequence length in the column.

Type: Double

Valid Range: Minimum value of 0.0.

Required: Yes

### MaximumLength

The size of the longest bit sequence in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# Blueprint

The details of a blueprint.

## Contents

### BlueprintLocation

Specifies the path in Amazon S3 where the blueprint is published.

Type: String

Required: No

### BlueprintServiceLocation

Specifies a path in Amazon S3 where the blueprint is copied when you call `CreateBlueprint/UpdateBlueprint` to register the blueprint in AWS Glue.

Type: String

Required: No

### CreatedOn

The date and time the blueprint was registered.

Type: Timestamp

Required: No

### Description

The description of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### ErrorMessage

An error message.

Type: String

Required: No

### **LastActiveDefinition**

When there are multiple versions of a blueprint and the latest version has some errors, this attribute indicates the last successful blueprint definition that is available with the service.

Type: [LastActiveDefinition](#) object

Required: No

### **LastModifiedOn**

The date and time the blueprint was last modified.

Type: Timestamp

Required: No

### **Name**

The name of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

### **ParameterSpec**

A JSON string that indicates the list of parameter specifications for the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131072.

Required: No

### **Status**

The status of the blueprint registration.

- **Creating** — The blueprint registration is in progress.
- **Active** — The blueprint has been successfully registered.

- **Updating** — An update to the blueprint registration is in progress.
- **Failed** — The blueprint registration failed.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | FAILED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BlueprintDetails

The details of a blueprint.

## Contents

### BlueprintName

The name of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

### RunId

The run ID for this blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# BlueprintRun

The details of a blueprint run.

## Contents

### BlueprintName

The name of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\.\-_\A-Za-z0-9]+`

Required: No

### CompletedOn

The date and time that the blueprint run completed.

Type: Timestamp

Required: No

### ErrorMessage

Indicates any errors that are seen while running the blueprint.

Type: String

Required: No

### Parameters

The blueprint parameters as a string. You will have to provide a value for each key that is required from the parameter spec that is defined in the `Blueprint$ParameterSpec`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131072.

Required: No

## RoleArn

The role ARN. This role will be assumed by the AWS Glue service and will be used to create the workflow and other entities of a workflow.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `arn:aws[^:]*:iam:[0-9]*:role/.+`

Required: No

## RollbackErrorMessage

If there are any errors while creating the entities of a workflow, we try to roll back the created entities until that point and delete them. This attribute indicates the errors seen while trying to delete the entities that are created.

Type: String

Required: No

## RunId

The run ID for this blueprint run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## StartedOn

The date and time that the blueprint run started.

Type: Timestamp

Required: No

## State

The state of the blueprint run. Possible values are:

- **Running** — The blueprint run is in progress.
- **Succeeded** — The blueprint run completed successfully.
- **Failed** — The blueprint run failed and rollback is complete.
- **Rolling Back** — The blueprint run failed and rollback is in progress.

Type: String

Valid Values: RUNNING | SUCCEEDED | FAILED | ROLLING\_BACK

Required: No

## **WorkflowName**

The name of a workflow that is created as a result of a successful blueprint run. If a blueprint run has an error, there will not be a workflow created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BooleanColumnStatisticsData

Defines column statistics supported for Boolean data columns.

## Contents

### NumberOfFalses

The number of false values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfTrues

The number of true values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# CatalogDeltaSource

Specifies a Delta Lake data source that is registered in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Name

The name of the Delta Lake data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### AdditionalDeltaOptions

Specifies additional connection options.

Type: String to string map

Key Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)

Value Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)

Required: No

## OutputSchemas

Specifies the data schema for the Delta Lake source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CatalogEntry

Specifies a table definition in the AWS Glue Data Catalog.

## Contents

### DatabaseName

The database in which the table metadata resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the table in question.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CatalogHudiSource

Specifies a Hudi data source that is registered in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Name

The name of the Hudi data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### AdditionalHudiOptions

Specifies additional connection options.

Type: String to string map

Key Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)

Value Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)

Required: No

## OutputSchemas

Specifies the data schema for the Hudi source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CatalogImportStatus

A structure containing migration status information.

## Contents

### ImportCompleted

True if the migration has completed, or False otherwise.

Type: Boolean

Required: No

### ImportedBy

The name of the person who initiated the migration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ImportTime

The time that the migration was started.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CatalogKafkaSource

Specifies an Apache Kafka data store in the Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Name

The name of the data store.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])*`)

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### DataPreviewOptions

Specifies options related to data preview for viewing a sample of your data.

Type: [StreamingDataPreviewOptions](#) object

Required: No

## DetectSchema

Whether to automatically determine the schema from the incoming data.

Type: Boolean

Required: No

## StreamingOptions

Specifies the streaming options.

Type: [KafkaStreamingSourceOptions](#) object

Required: No

## WindowSize

The amount of time to spend processing each micro batch.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CatalogKinesisSource

Specifies a Kinesis data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### DataPreviewOptions

Additional options for data preview.

Type: [StreamingDataPreviewOptions](#) object

Required: No

## DetectSchema

Whether to automatically determine the schema from the incoming data.

Type: Boolean

Required: No

## StreamingOptions

Additional options for the Kinesis streaming data source.

Type: [KinesisStreamingSourceOptions](#) object

Required: No

## WindowSize

The amount of time to spend processing each micro batch.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CatalogSchemaChangePolicy

A policy that specifies update behavior for the crawler.

## Contents

### EnableUpdateCatalog

Whether to use the specified update behavior when the crawler finds a changed schema.

Type: Boolean

Required: No

### UpdateBehavior

The update behavior when the crawler finds a changed schema.

Type: String

Valid Values: UPDATE\_IN\_DATABASE | LOG

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CatalogSource

Specifies a data store in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | (`^S\\r\\n''`))\*

Required: Yes

### Name

The name of the data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | (`^r\\n`))\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | (`^S\\r\\n''`))\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CatalogTarget

Specifies an AWS Glue Data Catalog target.

## Contents

### DatabaseName

The name of the database to be synchronized.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Tables

A list of the tables to be synchronized.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### ConnectionName

The name of the connection for an Amazon S3-backed Data Catalog table to be a target of the crawl when using a Catalog connection type paired with a NETWORK Connection type.

Type: String

Required: No

### DLqEventQueueArn

A valid Amazon dead-letter SQS ARN. For example,  
`arn:aws:sqs:region:account:deadLetterQueue.`

Type: String

Required: No

### **EventQueueArn**

A valid Amazon SQS ARN. For example, `arn:aws:sqs:region:account:sqs`.

Type: String

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Classifier

Classifiers are triggered during a crawl task. A classifier checks whether a given file is in a format it can handle. If it is, the classifier creates a schema in the form of a `StructType` object that matches that data format.

You can use the standard classifiers that AWS Glue provides, or you can write your own classifiers to best categorize your data sources and specify the appropriate schemas to use for them. A classifier can be a grok classifier, an XML classifier, a JSON classifier, or a custom CSV classifier, as specified in one of the fields in the `Classifier` object.

## Contents

### CsvClassifier

A classifier for comma-separated values (CSV).

Type: [CsvClassifier](#) object

Required: No

### GrokClassifier

A classifier that uses `grok`.

Type: [GrokClassifier](#) object

Required: No

### JsonClassifier

A classifier for JSON content.

Type: [JsonClassifier](#) object

Required: No

### XMLClassifier

A classifier for XML content.

Type: [XMLClassifier](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CloudWatchEncryption

Specifies how Amazon CloudWatch data should be encrypted.

## Contents

### CloudWatchEncryptionMode

The encryption mode to use for CloudWatch data.

Type: String

Valid Values: DISABLED | SSE-KMS

Required: No

### KmsKeyArn

The Amazon Resource Name (ARN) of the KMS key to be used to encrypt the data.

Type: String

Pattern: arn:aws:kms:.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CodeGenConfigurationNode

CodeGenConfigurationNode enumerates all valid Node types. One and only one of its member variables can be populated.

## Contents

### Aggregate

Specifies a transform that groups rows by chosen fields and computes the aggregated value by specified function.

Type: [Aggregate](#) object

Required: No

### AmazonRedshiftSource

Specifies a target that writes to a data source in Amazon Redshift.

Type: [AmazonRedshiftSource](#) object

Required: No

### AmazonRedshiftTarget

Specifies a target that writes to a data target in Amazon Redshift.

Type: [AmazonRedshiftTarget](#) object

Required: No

### ApplyMapping

Specifies a transform that maps data property keys in the data source to data property keys in the data target. You can rename keys, modify the data types for keys, and choose which keys to drop from the dataset.

Type: [ApplyMapping](#) object

Required: No

### AthenaConnectorSource

Specifies a connector to an Amazon Athena data source.

Type: [AthenaConnectorSource](#) object

Required: No

### **CatalogDeltaSource**

Specifies a Delta Lake data source that is registered in the AWS Glue Data Catalog.

Type: [CatalogDeltaSource](#) object

Required: No

### **CatalogHudiSource**

Specifies a Hudi data source that is registered in the AWS Glue Data Catalog.

Type: [CatalogHudiSource](#) object

Required: No

### **CatalogKafkaSource**

Specifies an Apache Kafka data store in the Data Catalog.

Type: [CatalogKafkaSource](#) object

Required: No

### **CatalogKinesisSource**

Specifies a Kinesis data source in the AWS Glue Data Catalog.

Type: [CatalogKinesisSource](#) object

Required: No

### **CatalogSource**

Specifies a data store in the AWS Glue Data Catalog.

Type: [CatalogSource](#) object

Required: No

### **CatalogTarget**

Specifies a target that uses a AWS Glue Data Catalog table.

Type: [BasicCatalogTarget](#) object

Required: No

### **ConnectorDataSource**

Specifies a source generated with standard connection options.

Type: [ConnectorDataSource](#) object

Required: No

### **ConnectorDataTarget**

Specifies a target generated with standard connection options.

Type: [ConnectorDataTarget](#) object

Required: No

### **CustomCode**

Specifies a transform that uses custom code you provide to perform the data transformation. The output is a collection of DynamicFrames.

Type: [CustomCode](#) object

Required: No

### **DirectJDBCSource**

Specifies the direct JDBC source connection.

Type: [DirectJDBCSource](#) object

Required: No

### **DirectKafkaSource**

Specifies an Apache Kafka data store.

Type: [DirectKafkaSource](#) object

Required: No

### **DirectKinesisSource**

Specifies a direct Amazon Kinesis data source.

Type: [DirectKinesisSource](#) object

Required: No

### **DropDuplicates**

Specifies a transform that removes rows of repeating data from a data set.

Type: [DropDuplicates](#) object

Required: No

### **DropFields**

Specifies a transform that chooses the data property keys that you want to drop.

Type: [DropFields](#) object

Required: No

### **DropNullFields**

Specifies a transform that removes columns from the dataset if all values in the column are 'null'. By default, AWS Glue Studio will recognize null objects, but some values such as empty strings, strings that are "null", -1 integers or other placeholders such as zeros, are not automatically recognized as nulls.

Type: [DropNullFields](#) object

Required: No

### **DynamicTransform**

Specifies a custom visual transform created by a user.

Type: [DynamicTransform](#) object

Required: No

### **DynamoDBCatalogSource**

Specifies a DynamoDBC Catalog data store in the AWS Glue Data Catalog.

Type: [DynamoDBCatalogSource](#) object

Required: No

## EvaluateDataQuality

Specifies your data quality evaluation criteria.

Type: [EvaluateDataQuality](#) object

Required: No

## EvaluateDataQualityMultiFrame

Specifies your data quality evaluation criteria. Allows multiple input data and returns a collection of Dynamic Frames.

Type: [EvaluateDataQualityMultiFrame](#) object

Required: No

## FillMissingValues

Specifies a transform that locates records in the dataset that have missing values and adds a new field with a value determined by imputation. The input data set is used to train the machine learning model that determines what the missing value should be.

Type: [FillMissingValues](#) object

Required: No

## Filter

Specifies a transform that splits a dataset into two, based on a filter condition.

Type: [Filter](#) object

Required: No

## GovernedCatalogSource

Specifies a data source in a governed Data Catalog.

Type: [GovernedCatalogSource](#) object

Required: No

## GovernedCatalogTarget

Specifies a data target that writes to a governed catalog.

Type: [GovernedCatalogTarget](#) object

Required: No

### **JDBCConnectorSource**

Specifies a connector to a JDBC data source.

Type: [JDBCConnectorSource](#) object

Required: No

### **JDBCConnectorTarget**

Specifies a data target that writes to Amazon S3 in Apache Parquet columnar storage.

Type: [JDBCConnectorTarget](#) object

Required: No

### **Join**

Specifies a transform that joins two datasets into one dataset using a comparison phrase on the specified data property keys. You can use inner, outer, left, right, left semi, and left anti joins.

Type: [Join](#) object

Required: No

### **Merge**

Specifies a transform that merges a `DynamicFrame` with a staging `DynamicFrame` based on the specified primary keys to identify records. Duplicate records (records with the same primary keys) are not de-duplicated.

Type: [Merge](#) object

Required: No

### **MicrosoftSQLServerCatalogSource**

Specifies a Microsoft SQL server data source in the AWS Glue Data Catalog.

Type: [MicrosoftSQLServerCatalogSource](#) object

Required: No

## MicrosoftSQLServerCatalogTarget

Specifies a target that uses Microsoft SQL.

Type: [MicrosoftSQLServerCatalogTarget](#) object

Required: No

## MySQLCatalogSource

Specifies a MySQL data source in the AWS Glue Data Catalog.

Type: [MySQLCatalogSource](#) object

Required: No

## MySQLCatalogTarget

Specifies a target that uses MySQL.

Type: [MySQLCatalogTarget](#) object

Required: No

## OracleSQLCatalogSource

Specifies an Oracle data source in the AWS Glue Data Catalog.

Type: [OracleSQLCatalogSource](#) object

Required: No

## OracleSQLCatalogTarget

Specifies a target that uses Oracle SQL.

Type: [OracleSQLCatalogTarget](#) object

Required: No

## PIIDetection

Specifies a transform that identifies, removes or masks PII data.

Type: [PIIDetection](#) object

Required: No

## PostgreSQLCatalogSource

Specifies a PostgreSQL data source in the AWS Glue Data Catalog.

Type: [PostgreSQLCatalogSource](#) object

Required: No

## PostgreSQLCatalogTarget

Specifies a target that uses Postgres SQL.

Type: [PostgreSQLCatalogTarget](#) object

Required: No

## Recipe

Specifies a AWS Glue DataBrew recipe node.

Type: [Recipe](#) object

Required: No

## RedshiftSource

Specifies an Amazon Redshift data store.

Type: [RedshiftSource](#) object

Required: No

## RedshiftTarget

Specifies a target that uses Amazon Redshift.

Type: [RedshiftTarget](#) object

Required: No

## RelationalCatalogSource

Specifies a relational catalog data store in the AWS Glue Data Catalog.

Type: [RelationalCatalogSource](#) object

Required: No



## RenameField

Specifies a transform that renames a single data property key.

Type: [RenameField](#) object

Required: No

## S3CatalogDeltaSource

Specifies a Delta Lake data source that is registered in the AWS Glue Data Catalog. The data source must be stored in Amazon S3.

Type: [S3CatalogDeltaSource](#) object

Required: No

## S3CatalogHudiSource

Specifies a Hudi data source that is registered in the AWS Glue Data Catalog. The data source must be stored in Amazon S3.

Type: [S3CatalogHudiSource](#) object

Required: No

## S3CatalogSource

Specifies an Amazon S3 data store in the AWS Glue Data Catalog.

Type: [S3CatalogSource](#) object

Required: No

## S3CatalogTarget

Specifies a data target that writes to Amazon S3 using the AWS Glue Data Catalog.

Type: [S3CatalogTarget](#) object

Required: No

## S3CsvSource

Specifies a command-separated value (CSV) data store stored in Amazon S3.

Type: [S3CsvSource](#) object

Required: No

### **S3DeltaCatalogTarget**

Specifies a target that writes to a Delta Lake data source in the AWS Glue Data Catalog.

Type: [S3DeltaCatalogTarget](#) object

Required: No

### **S3DeltaDirectTarget**

Specifies a target that writes to a Delta Lake data source in Amazon S3.

Type: [S3DeltaDirectTarget](#) object

Required: No

### **S3DeltaSource**

Specifies a Delta Lake data source stored in Amazon S3.

Type: [S3DeltaSource](#) object

Required: No

### **S3DirectTarget**

Specifies a data target that writes to Amazon S3.

Type: [S3DirectTarget](#) object

Required: No

### **S3GlueParquetTarget**

Specifies a data target that writes to Amazon S3 in Apache Parquet columnar storage.

Type: [S3GlueParquetTarget](#) object

Required: No

### **S3HudiCatalogTarget**

Specifies a target that writes to a Hudi data source in the AWS Glue Data Catalog.

Type: [S3HudiCatalogTarget](#) object

Required: No

### **S3HudiDirectTarget**

Specifies a target that writes to a Hudi data source in Amazon S3.

Type: [S3HudiDirectTarget](#) object

Required: No

### **S3HudiSource**

Specifies a Hudi data source stored in Amazon S3.

Type: [S3HudiSource](#) object

Required: No

### **S3JsonSource**

Specifies a JSON data store stored in Amazon S3.

Type: [S3JsonSource](#) object

Required: No

### **S3ParquetSource**

Specifies an Apache Parquet data store stored in Amazon S3.

Type: [S3ParquetSource](#) object

Required: No

### **SelectFields**

Specifies a transform that chooses the data property keys that you want to keep.

Type: [SelectFields](#) object

Required: No

### **SelectFromCollection**

Specifies a transform that chooses one `DynamicFrame` from a collection of `DynamicFrames`. The output is the selected `DynamicFrame`

Type: [SelectFromCollection](#) object

Required: No

### **SnowflakeSource**

Specifies a Snowflake data source.

Type: [SnowflakeSource](#) object

Required: No

### **SnowflakeTarget**

Specifies a target that writes to a Snowflake data source.

Type: [SnowflakeTarget](#) object

Required: No

### **SparkConnectorSource**

Specifies a connector to an Apache Spark data source.

Type: [SparkConnectorSource](#) object

Required: No

### **SparkConnectorTarget**

Specifies a target that uses an Apache Spark connector.

Type: [SparkConnectorTarget](#) object

Required: No

### **SparkSQL**

Specifies a transform where you enter a SQL query using Spark SQL syntax to transform the data. The output is a single `DynamicFrame`.

Type: [SparkSQL](#) object

Required: No

### **Spigot**

Specifies a transform that writes samples of the data to an Amazon S3 bucket.

Type: [Spigot](#) object

Required: No

## SplitFields

Specifies a transform that splits data property keys into two `DynamicFrames`. The output is a collection of `DynamicFrames`: one with selected data property keys, and one with the remaining data property keys.

Type: [SplitFields](#) object

Required: No

## Union

Specifies a transform that combines the rows from two or more datasets into a single result.

Type: [Union](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeGenEdge

Represents a directional edge in a directed acyclic graph (DAG).

## Contents

### Source

The ID of the node at which the edge starts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[A-Za-z_][A-Za-z0-9_]*`

Required: Yes

### Target

The ID of the node at which the edge ends.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[A-Za-z_][A-Za-z0-9_]*`

Required: Yes

### TargetParameter

The target of the edge.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeGenNode

Represents a node in a directed acyclic graph (DAG)

## Contents

### Args

Properties of the node, in the form of name-value pairs.

Type: Array of [CodeGenNodeArg](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: Yes

### Id

A node identifier that is unique within the node's graph.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[A-Za-z_][A-Za-z0-9_]*`

Required: Yes

### NodeType

The type of node that this is.

Type: String

Required: Yes

### LineNumber

The line number of the node.

Type: Integer

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeGenNodeArg

An argument or property of a node.

## Contents

### Name

The name of the argument or property.

Type: String

Required: Yes

### Value

The value of the argument or property.

Type: String

Required: Yes

### Param

True if the value is used as a parameter.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Column

A column in a Table.

## Contents

### Name

The name of the Column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Comment

A free-form text comment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Parameters

These key-value pairs define properties associated with the column.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

## Type

The data type of the Column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131072.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnError

Encapsulates a column name that failed and the reason for failure.

## Contents

### ColumnName

The name of the column that failed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Error

An error message with the reason for the failure of an operation.

Type: [ErrorDetail](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnImportance

A structure containing the column name and column importance score for a column.

Column importance helps you understand how columns contribute to your model, by identifying which columns in your records are more important than others.

## Contents

### ColumnName

The name of a column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Importance

The column importance score for the column, as a decimal.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnRowFilter

A filter that uses both column-level and row-level filtering.

## Contents

### ColumnName

A string containing the name of the column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### RowFilterExpression

A string containing the row-level filter expression.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnStatistics

Represents the generated column-level statistics for a table or partition.

## Contents

### AnalyzedTime

The timestamp of when column statistics were generated.

Type: Timestamp

Required: Yes

### ColumnName

Name of column which statistics belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### ColumnType

The data type of the column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 20000.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### StatisticsData

A `ColumnStatisticData` object that contains the statistics data values.

Type: [ColumnStatisticsData](#) object

Required: Yes



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnStatisticsData

Contains the individual types of column statistics data. Only one data object should be set and indicated by the Type attribute.

## Contents

### Type

The type of column statistics data.

Type: String

Valid Values: BOOLEAN | DATE | DECIMAL | DOUBLE | LONG | STRING | BINARY

Required: Yes

### BinaryColumnStatisticsData

Binary column statistics data.

Type: [BinaryColumnStatisticsData](#) object

Required: No

### BooleanColumnStatisticsData

Boolean column statistics data.

Type: [BooleanColumnStatisticsData](#) object

Required: No

### DateColumnStatisticsData

Date column statistics data.

Type: [DateColumnStatisticsData](#) object

Required: No

### DecimalColumnStatisticsData

Decimal column statistics data. UnscaledValues within are Base64-encoded binary objects storing big-endian, two's complement representations of the decimal's unscaled value.

Type: [DecimalColumnStatisticsData](#) object

Required: No

### **DoubleColumnStatisticsData**

Double column statistics data.

Type: [DoubleColumnStatisticsData](#) object

Required: No

### **LongColumnStatisticsData**

Long column statistics data.

Type: [LongColumnStatisticsData](#) object

Required: No

### **StringColumnStatisticsData**

String column statistics data.

Type: [StringColumnStatisticsData](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnStatisticsError

Encapsulates a ColumnStatistics object that failed and the reason for failure.

## Contents

### ColumnStatistics

The ColumnStatistics of the column.

Type: [ColumnStatistics](#) object

Required: No

### Error

An error message with the reason for the failure of an operation.

Type: [ErrorDetail](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ColumnStatisticsTaskRun

The object that shows the details of the column stats run.

## Contents

### CatalogID

The ID of the Data Catalog where the table resides. If none is supplied, the AWS account ID is used by default.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ColumnNameList

A list of the column names. If none is supplied, all column names for the table will be used by default.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ColumnStatisticsTaskRunId

The identifier for the particular column statistics task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

**CreationTime**

The time that this task was created.

Type: Timestamp

Required: No

**CustomerId**

The AWS account ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 12.

Required: No

**DatabaseName**

The database where the table resides.

Type: String

Required: No

**DPUSeconds**

The calculated DPU usage in seconds for all autoscaled workers.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

**EndTime**

The end time of the task.

Type: Timestamp

Required: No

**ErrorMessage**

The error message for the job.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **LastUpdated**

The last point in time when this task was modified.

Type: Timestamp

Required: No

### **NumberOfWorkers**

The number of workers used to generate column statistics. The job is preconfigured to autoscale up to 25 instances.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **Role**

The IAM role that the service assumes to generate statistics.

Type: String

Required: No

### **SampleSize**

The percentage of rows used to generate statistics. If none is supplied, the entire table will be used to generate stats.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

## SecurityConfiguration

Name of the security configuration that is used to encrypt CloudWatch logs for the column stats task run.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

## StartTime

The start time of the task.

Type: Timestamp

Required: No

## Status

The status of the task run.

Type: String

Valid Values: STARTING | RUNNING | SUCCEEDED | FAILED | STOPPED

Required: No

## TableName

The name of the table for which column statistics is generated.

Type: String

Required: No

## WorkerType

The type of workers being used for generating stats. The default is g.1x.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Condition

Defines a condition under which a trigger fires.

## Contents

### CrawlerName

The name of the crawler to which this condition applies.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CrawlState

The state of the crawler to which this condition applies.

Type: String

Valid Values: RUNNING | CANCELLING | CANCELLED | SUCCEEDED | FAILED | ERROR

Required: No

### JobName

The name of the job whose JobRuns this condition applies to, and on which this trigger waits.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### LogicalOperator

A logical operator.

Type: String

Valid Values: EQUALS

Required: No

### State

The condition state. Currently, the only job states that a trigger can listen for are SUCCEEDED, STOPPED, FAILED, and TIMEOUT. The only crawler states that a trigger can listen for are SUCCEEDED, FAILED, and CANCELLED.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT | ERROR | WAITING

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConfusionMatrix

The confusion matrix shows you what your transform is predicting accurately and what types of errors it is making.

For more information, see [Confusion matrix](#) in Wikipedia.

## Contents

### NumFalseNegatives

The number of matches in the data that the transform didn't find, in the confusion matrix for your transform.

Type: Long

Required: No

### NumFalsePositives

The number of nonmatches in the data that the transform incorrectly classified as a match, in the confusion matrix for your transform.

Type: Long

Required: No

### NumTrueNegatives

The number of nonmatches in the data that the transform correctly rejected, in the confusion matrix for your transform.

Type: Long

Required: No

### NumTruePositives

The number of matches in the data that the transform correctly found, in the confusion matrix for your transform.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Connection

Defines a connection to a data source.

## Contents

### ConnectionProperties

These key-value pairs define parameters for the connection:

- **HOST** - The host URI: either the fully qualified domain name (FQDN) or the IPv4 address of the database host.
- **PORT** - The port number, between 1024 and 65535, of the port on which the database host is listening for database connections.
- **USER\_NAME** - The name under which to log in to the database. The value string for **USER\_NAME** is "USERNAME".
- **PASSWORD** - A password, if one is used, for the user name.
- **ENCRYPTED\_PASSWORD** - When you enable connection password protection by setting **ConnectionPasswordEncryption** in the Data Catalog encryption settings, this field stores the encrypted password.
- **JDBC\_DRIVER\_JAR\_URI** - The Amazon Simple Storage Service (Amazon S3) path of the JAR file that contains the JDBC driver to use.
- **JDBC\_DRIVER\_CLASS\_NAME** - The class name of the JDBC driver to use.
- **JDBC\_ENGINE** - The name of the JDBC engine to use.
- **JDBC\_ENGINE\_VERSION** - The version of the JDBC engine to use.
- **CONFIG\_FILES** - (Reserved for future use.)
- **INSTANCE\_ID** - The instance ID to use.
- **JDBC\_CONNECTION\_URL** - The URL for connecting to a JDBC data source.
- **JDBC\_ENFORCE\_SSL** - A Boolean string (true, false) specifying whether Secure Sockets Layer (SSL) with hostname matching is enforced for the JDBC connection on the client. The default is false.
- **CUSTOM\_JDBC\_CERT** - An Amazon S3 location specifying the customer's root certificate. AWS Glue uses this root certificate to validate the customer's certificate when connecting to the customer database. AWS Glue only handles X.509 certificates. The certificate provided must be DER-encoded and supplied in Base64 encoding PEM format.

- `SKIP_CUSTOM_JDBC_CERT_VALIDATION` - By default, this is `false`. AWS Glue validates the Signature algorithm and Subject Public Key Algorithm for the customer certificate. The only permitted algorithms for the Signature algorithm are `SHA256withRSA`, `SHA384withRSA` or `SHA512withRSA`. For the Subject Public Key Algorithm, the key length must be at least 2048. You can set the value of this property to `true` to skip AWS Glue's validation of the customer certificate.
- `CUSTOM_JDBC_CERT_STRING` - A custom JDBC certificate string which is used for domain match or distinguished name match to prevent a man-in-the-middle attack. In Oracle database, this is used as the `SSL_SERVER_CERT_DN`; in Microsoft SQL Server, this is used as the `hostNameInCertificate`.
- `CONNECTION_URL` - The URL for connecting to a general (non-JDBC) data source.
- `SECRET_ID` - The secret ID used for the secret manager of credentials.
- `CONNECTOR_URL` - The connector URL for a `MARKETPLACE` or `CUSTOM` connection.
- `CONNECTOR_TYPE` - The connector type for a `MARKETPLACE` or `CUSTOM` connection.
- `CONNECTOR_CLASS_NAME` - The connector class name for a `MARKETPLACE` or `CUSTOM` connection.
- `KAFKA_BOOTSTRAP_SERVERS` - A comma-separated list of host and port pairs that are the addresses of the Apache Kafka brokers in a Kafka cluster to which a Kafka client will connect to and bootstrap itself.
- `KAFKA_SSL_ENABLED` - Whether to enable or disable SSL on an Apache Kafka connection. Default value is `"true"`.
- `KAFKA_CUSTOM_CERT` - The Amazon S3 URL for the private CA cert file (.pem format). The default is an empty string.
- `KAFKA_SKIP_CUSTOM_CERT_VALIDATION` - Whether to skip the validation of the CA cert file or not. AWS Glue validates for three algorithms: `SHA256withRSA`, `SHA384withRSA` and `SHA512withRSA`. Default value is `"false"`.
- `KAFKA_CLIENT_KEYSTORE` - The Amazon S3 location of the client keystore file for Kafka client side authentication (Optional).
- `KAFKA_CLIENT_KEYSTORE_PASSWORD` - The password to access the provided keystore (Optional).
- `KAFKA_CLIENT_KEY_PASSWORD` - A keystore can consist of multiple keys, so this is the password to access the client key to be used with the Kafka server side key (Optional).

- `ENCRYPTED_KAFKA_CLIENT_KEYSTORE_PASSWORD` - The encrypted version of the Kafka client keystore password (if the user has the AWS Glue encrypt passwords setting selected).
- `ENCRYPTED_KAFKA_CLIENT_KEY_PASSWORD` - The encrypted version of the Kafka client key password (if the user has the AWS Glue encrypt passwords setting selected).
- `KAFKA_SASL_MECHANISM` - "SCRAM-SHA-512", "GSSAPI", "AWS\_MSK\_IAM", or "PLAIN". These are the supported [SASL Mechanisms](#).
- `KAFKA_SASL_PLAIN_USERNAME` - A plaintext username used to authenticate with the "PLAIN" mechanism.
- `KAFKA_SASL_PLAIN_PASSWORD` - A plaintext password used to authenticate with the "PLAIN" mechanism.
- `ENCRYPTED_KAFKA_SASL_PLAIN_PASSWORD` - The encrypted version of the Kafka SASL PLAIN password (if the user has the AWS Glue encrypt passwords setting selected).
- `KAFKA_SASL_SCRAM_USERNAME` - A plaintext username used to authenticate with the "SCRAM-SHA-512" mechanism.
- `KAFKA_SASL_SCRAM_PASSWORD` - A plaintext password used to authenticate with the "SCRAM-SHA-512" mechanism.
- `ENCRYPTED_KAFKA_SASL_SCRAM_PASSWORD` - The encrypted version of the Kafka SASL SCRAM password (if the user has the AWS Glue encrypt passwords setting selected).
- `KAFKA_SASL_SCRAM_SECRETS_ARN` - The Amazon Resource Name of a secret in AWS Secrets Manager.
- `KAFKA_SASL_GSSAPI_KEYTAB` - The S3 location of a Kerberos keytab file. A keytab stores long-term keys for one or more principals. For more information, see [MIT Kerberos Documentation: Keytab](#).
- `KAFKA_SASL_GSSAPI_KRB5_CONF` - The S3 location of a Kerberos `krb5.conf` file. A `krb5.conf` stores Kerberos configuration information, such as the location of the KDC server. For more information, see [MIT Kerberos Documentation: krb5.conf](#).
- `KAFKA_SASL_GSSAPI_SERVICE` - The Kerberos service name, as set with `sasl.kerberos.service.name` in your [Kafka Configuration](#).
- `KAFKA_SASL_GSSAPI_PRINCIPAL` - The name of the Kerberos principal used by AWS Glue. For more information, see [Kafka Documentation: Configuring Kafka Brokers](#).

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.



Valid Keys: HOST | PORT | USERNAME | PASSWORD | ENCRYPTED\_PASSWORD  
| JDBC\_DRIVER\_JAR\_URI | JDBC\_DRIVER\_CLASS\_NAME | JDBC\_ENGINE  
| JDBC\_ENGINE\_VERSION | CONFIG\_FILES | INSTANCE\_ID |  
JDBC\_CONNECTION\_URL | JDBC\_ENFORCE\_SSL | CUSTOM\_JDBC\_CERT |  
SKIP\_CUSTOM\_JDBC\_CERT\_VALIDATION | CUSTOM\_JDBC\_CERT\_STRING |  
CONNECTION\_URL | KAFKA\_BOOTSTRAP\_SERVERS | KAFKA\_SSL\_ENABLED  
| KAFKA\_CUSTOM\_CERT | KAFKA\_SKIP\_CUSTOM\_CERT\_VALIDATION |  
KAFKA\_CLIENT\_KEYSTORE | KAFKA\_CLIENT\_KEYSTORE\_PASSWORD |  
KAFKA\_CLIENT\_KEY\_PASSWORD | ENCRYPTED\_KAFKA\_CLIENT\_KEYSTORE\_PASSWORD  
| ENCRYPTED\_KAFKA\_CLIENT\_KEY\_PASSWORD | SECRET\_ID | CONNECTOR\_URL  
| CONNECTOR\_TYPE | CONNECTOR\_CLASS\_NAME | KAFKA\_SASL\_MECHANISM  
| KAFKA\_SASL\_PLAIN\_USERNAME | KAFKA\_SASL\_PLAIN\_PASSWORD |  
ENCRYPTED\_KAFKA\_SASL\_PLAIN\_PASSWORD | KAFKA\_SASL\_SCRAM\_USERNAME  
| KAFKA\_SASL\_SCRAM\_PASSWORD | KAFKA\_SASL\_SCRAM\_SECRETS\_ARN |  
ENCRYPTED\_KAFKA\_SASL\_SCRAM\_PASSWORD | KAFKA\_SASL\_GSSAPI\_KEYTAB  
| KAFKA\_SASL\_GSSAPI\_KRB5\_CONF | KAFKA\_SASL\_GSSAPI\_SERVICE |  
KAFKA\_SASL\_GSSAPI\_PRINCIPAL

Value Length Constraints: Maximum length of 1024.

Required: No

### **ConnectionType**

The type of the connection. Currently, SFTP is not supported.

Type: String

Valid Values: JDBC | SFTP | MONGODB | KAFKA | NETWORK | MARKETPLACE | CUSTOM

Required: No

### **CreationTime**

The time that this connection definition was created.

Type: Timestamp

Required: No

### **Description**

The description of the connection.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **LastUpdatedBy**

The user, group, or role that last updated this connection definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **LastUpdatedTime**

The last time that this connection definition was updated.

Type: Timestamp

Required: No

### **MatchCriteria**

A list of criteria that can be used in selecting this connection.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Name**

The name of the connection definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### PhysicalConnectionRequirements

A map of physical connection requirements, such as virtual private cloud (VPC) and SecurityGroup, that are needed to make this connection successfully.

Type: [PhysicalConnectionRequirements](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConnectionInput

A structure that is used to specify a connection to create or update.

## Contents

### ConnectionProperties

These key-value pairs define parameters for the connection.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Valid Keys: HOST | PORT | USERNAME | PASSWORD | ENCRYPTED\_PASSWORD | JDBC\_DRIVER\_JAR\_URI | JDBC\_DRIVER\_CLASS\_NAME | JDBC\_ENGINE | JDBC\_ENGINE\_VERSION | CONFIG\_FILES | INSTANCE\_ID | JDBC\_CONNECTION\_URL | JDBC\_ENFORCE\_SSL | CUSTOM\_JDBC\_CERT | SKIP\_CUSTOM\_JDBC\_CERT\_VALIDATION | CUSTOM\_JDBC\_CERT\_STRING | CONNECTION\_URL | KAFKA\_BOOTSTRAP\_SERVERS | KAFKA\_SSL\_ENABLED | KAFKA\_CUSTOM\_CERT | KAFKA\_SKIP\_CUSTOM\_CERT\_VALIDATION | KAFKA\_CLIENT\_KEYSTORE | KAFKA\_CLIENT\_KEYSTORE\_PASSWORD | KAFKA\_CLIENT\_KEY\_PASSWORD | ENCRYPTED\_KAFKA\_CLIENT\_KEYSTORE\_PASSWORD | ENCRYPTED\_KAFKA\_CLIENT\_KEY\_PASSWORD | SECRET\_ID | CONNECTOR\_URL | CONNECTOR\_TYPE | CONNECTOR\_CLASS\_NAME | KAFKA\_SASL\_MECHANISM | KAFKA\_SASL\_PLAIN\_USERNAME | KAFKA\_SASL\_PLAIN\_PASSWORD | ENCRYPTED\_KAFKA\_SASL\_PLAIN\_PASSWORD | KAFKA\_SASL\_SCRAM\_USERNAME | KAFKA\_SASL\_SCRAM\_PASSWORD | KAFKA\_SASL\_SCRAM\_SECRETS\_ARN | ENCRYPTED\_KAFKA\_SASL\_SCRAM\_PASSWORD | KAFKA\_SASL\_GSSAPI\_KEYTAB | KAFKA\_SASL\_GSSAPI\_KRB5\_CONF | KAFKA\_SASL\_GSSAPI\_SERVICE | KAFKA\_SASL\_GSSAPI\_PRINCIPAL

Value Length Constraints: Maximum length of 1024.

Required: Yes

### ConnectionType

The type of the connection. Currently, these types are supported:

- **JDBC** - Designates a connection to a database through Java Database Connectivity (JDBC).

JDBC Connections use the following ConnectionParameters.

- Required: All of (HOST, PORT, JDBC\_ENGINE) or JDBC\_CONNECTION\_URL.
  - Required: All of (USERNAME, PASSWORD) or SECRET\_ID.
  - Optional: JDBC\_ENFORCE\_SSL, CUSTOM\_JDBC\_CERT, CUSTOM\_JDBC\_CERT\_STRING, SKIP\_CUSTOM\_JDBC\_CERT\_VALIDATION. These parameters are used to configure SSL with JDBC.
- **KAFKA** - Designates a connection to an Apache Kafka streaming platform.

KAFKA Connections use the following ConnectionParameters.

- Required: KAFKA\_BOOTSTRAP\_SERVERS.
  - Optional: KAFKA\_SSL\_ENABLED, KAFKA\_CUSTOM\_CERT, KAFKA\_SKIP\_CUSTOM\_CERT\_VALIDATION. These parameters are used to configure SSL with KAFKA.
  - Optional: KAFKA\_CLIENT\_KEYSTORE, KAFKA\_CLIENT\_KEYSTORE\_PASSWORD, KAFKA\_CLIENT\_KEY\_PASSWORD, ENCRYPTED\_KAFKA\_CLIENT\_KEYSTORE\_PASSWORD, ENCRYPTED\_KAFKA\_CLIENT\_KEY\_PASSWORD. These parameters are used to configure TLS client configuration with SSL in KAFKA.
  - Optional: KAFKA\_SASL\_MECHANISM. Can be specified as SCRAM-SHA-512, GSSAPI, or AWS\_MSK\_IAM.
  - Optional: KAFKA\_SASL\_SCRAM\_USERNAME, KAFKA\_SASL\_SCRAM\_PASSWORD, ENCRYPTED\_KAFKA\_SASL\_SCRAM\_PASSWORD. These parameters are used to configure SASL/SCRAM-SHA-512 authentication with KAFKA.
  - Optional: KAFKA\_SASL\_GSSAPI\_KEYTAB, KAFKA\_SASL\_GSSAPI\_KRB5\_CONF, KAFKA\_SASL\_GSSAPI\_SERVICE, KAFKA\_SASL\_GSSAPI\_PRINCIPAL. These parameters are used to configure SASL/GSSAPI authentication with KAFKA.
- **MONGODB** - Designates a connection to a MongoDB document database.

MONGODB Connections use the following ConnectionParameters.

- Required: CONNECTION\_URL.
  - Required: All of (USERNAME, PASSWORD) or SECRET\_ID.
- **NETWORK** - Designates a network connection to a data source within an Amazon Virtual Private Cloud environment (Amazon VPC).

NETWORK Connections do not require ConnectionParameters. Instead, provide a PhysicalConnectionRequirements.

- MARKETPLACE - Uses configuration settings contained in a connector purchased from AWS Marketplace to read from and write to data stores that are not natively supported by AWS Glue.

MARKETPLACE Connections use the following ConnectionParameters.

- Required: CONNECTOR\_TYPE, CONNECTOR\_URL, CONNECTOR\_CLASS\_NAME, CONNECTION\_URL.
- Required for JDBC CONNECTOR\_TYPE connections: All of (USERNAME, PASSWORD) or SECRET\_ID.
- CUSTOM - Uses configuration settings contained in a custom connector to read from and write to data stores that are not natively supported by AWS Glue.

SFTP is not supported.

For more information about how optional ConnectionProperties are used to configure features in AWS Glue, consult [AWS Glue connection properties](#).

For more information about how optional ConnectionProperties are used to configure features in AWS Glue Studio, consult [Using connectors and connections](#).

Type: String

Valid Values: JDBC | SFTP | MONGODB | KAFKA | NETWORK | MARKETPLACE | CUSTOM

Required: Yes

## Name

The name of the connection. Connection will not function as expected without a name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Description

The description of the connection.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## MatchCriteria

A list of criteria that can be used in selecting this connection.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## PhysicalConnectionRequirements

A map of physical connection requirements, such as virtual private cloud (VPC) and `SecurityGroup`, that are needed to successfully make this connection.

Type: [PhysicalConnectionRequirements](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# ConnectionPasswordEncryption

The data structure used by the Data Catalog to encrypt the password as part of `CreateConnection` or `UpdateConnection` and store it in the `ENCRYPTED_PASSWORD` field in the connection properties. You can enable catalog encryption or only password encryption.

When a `CreationConnection` request arrives containing a password, the Data Catalog first encrypts the password using your AWS KMS key. It then encrypts the whole connection object again if catalog encryption is also enabled.

This encryption requires that you set AWS KMS key permissions to enable or restrict access on the password key according to your security requirements. For example, you might want only administrators to have decrypt permission on the password key.

## Contents

### ReturnConnectionPasswordEncrypted

When the `ReturnConnectionPasswordEncrypted` flag is set to "true", passwords remain encrypted in the responses of `GetConnection` and `GetConnections`. This encryption takes effect independently from catalog encryption.

Type: Boolean

Required: Yes

### AwsKmsKeyId

An AWS KMS key that is used to encrypt the connection password.

If connection password protection is enabled, the caller of `CreateConnection` and `UpdateConnection` needs at least `kms:Encrypt` permission on the specified AWS KMS key, to encrypt passwords before storing them in the Data Catalog.

You can set the decrypt permission to enable or restrict access on the password key according to your security requirements.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConnectionsList

Specifies the connections used by a job.

## Contents

### Connections

A list of connections used by the job.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConnectorDataSource

Specifies a source generated with standard connection options.

## Contents

### ConnectionType

The `connectionType`, as provided to the underlying AWS Glue library. This node type supports the following connection types:

- `opensearch`
- `azuresql`
- `azurecosmos`
- `bigquery`
- `saphana`
- `teradata`
- `vertica`

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF] | [^\\S\\r\\n"']`)\*

Required: Yes

### Data

A map specifying connection options for the node. You can find standard connection options for the corresponding connection type in the [Connection parameters](#) section of the AWS Glue documentation.

Type: String to string map

Required: Yes

### Name

The name of this source node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

## OutputSchemas

Specifies the data schema for this source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConnectorDataTarget

Specifies a target generated with standard connection options.

## Contents

### ConnectionType

The `connectionType`, as provided to the underlying AWS Glue library. This node type supports the following connection types:

- `opensearch`
- `azuresql`
- `azurecosmos`
- `bigquery`
- `saphana`
- `teradata`
- `vertica`

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF] | [^\\S\\r\\n"']`)\*

Required: Yes

### Data

A map specifying connection options for the node. You can find standard connection options for the corresponding connection type in the [Connection parameters](#) section of the AWS Glue documentation.

Type: String to string map

Required: Yes

### Name

The name of this target node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n])*`

Required: Yes

## Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Crawl

The details of a crawl in the workflow.

## Contents

### CompletedOn

The date and time on which the crawl completed.

Type: Timestamp

Required: No

### ErrorMessage

The error message associated with the crawl.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u00DC-\u00FF\u00r\u00n\u00t]*`

Required: No

### LogGroup

The log group associated with the crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_\#A-Za-z0-9]+`

Required: No

### LogStream

The log stream associated with the crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.



Pattern: [^:]\*

Required: No

### **StartedOn**

The date and time on which the crawl started.

Type: Timestamp

Required: No

### **State**

The state of the crawler.

Type: String

Valid Values: RUNNING | CANCELLING | CANCELLED | SUCCEEDED | FAILED | ERROR

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Crawler

Specifies a crawler program that examines a data source and uses classifiers to try to determine its schema. If successful, the crawler records metadata concerning the data source in the AWS Glue Data Catalog.

## Contents

### Classifiers

A list of UTF-8 strings that specify the custom classifiers that are associated with the crawler.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Configuration

Crawler configuration information. This versioned JSON string allows users to specify aspects of a crawler's behavior. For more information, see [Setting crawler configuration options](#).

Type: String

Required: No

### CrawlElapsedTime

If the crawler is running, contains the total time elapsed since the last crawl began.

Type: Long

Required: No

### CrawlerSecurityConfiguration

The name of the SecurityConfiguration structure to be used by this crawler.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### **CreationTime**

The time that the crawler was created.

Type: Timestamp

Required: No

### **DatabaseName**

The name of the database in which the crawler's output is stored.

Type: String

Required: No

### **Description**

A description of the crawler.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **LakeFormationConfiguration**

Specifies whether the crawler should use AWS Lake Formation credentials for the crawler instead of the IAM role credentials.

Type: [LakeFormationConfiguration](#) object

Required: No

### **LastCrawl**

The status of the last crawl, and potentially error information if an error occurred.

Type: [LastCrawlInfo](#) object

Required: No

## LastUpdated

The time that the crawler was last updated.

Type: Timestamp

Required: No

## LineageConfiguration

A configuration that specifies whether data lineage is enabled for the crawler.

Type: [LineageConfiguration](#) object

Required: No

## Name

The name of the crawler.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## RecrawlPolicy

A policy that specifies whether to crawl the entire dataset again, or to crawl only folders that were added since the last crawler run.

Type: [RecrawlPolicy](#) object

Required: No

## Role

The Amazon Resource Name (ARN) of an IAM role that's used to access customer resources, such as Amazon Simple Storage Service (Amazon S3) data.

Type: String

Required: No

## Schedule

For scheduled crawlers, the schedule when the crawler runs.

Type: [Schedule](#) object

Required: No

## SchemaChangePolicy

The policy that specifies update and delete behaviors for the crawler.

Type: [SchemaChangePolicy](#) object

Required: No

## State

Indicates whether the crawler is running, or whether a run is pending.

Type: String

Valid Values: READY | RUNNING | STOPPING

Required: No

## TablePrefix

The prefix added to the names of tables that are created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

## Targets

A collection of targets to crawl.

Type: [CrawlerTargets](#) object

Required: No

## Version

The version of the crawler.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CrawlerHistory

Contains the information for a run of a crawler.

## Contents

### CrawlId

A UUID identifier for each crawl.

Type: String

Required: No

### DPUHour

The number of data processing units (DPU) used in hours for the crawl.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

### EndTime

The date and time on which the crawl ended.

Type: Timestamp

Required: No

### ErrorMessage

If an error occurred, the error message associated with the crawl.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LogGroup

The log group associated with the crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_\/#A-Za-z0-9]+`

Required: No

### **LogStream**

The log stream associated with the crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\^:]*`

Required: No

### **MessagePrefix**

The prefix for a CloudWatch message about this crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0-\u00FF\uD800-\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **StartTime**

The date and time on which the crawl started.

Type: Timestamp

Required: No

### **State**

The state of the crawl.

Type: String

Valid Values: RUNNING | COMPLETED | FAILED | STOPPED



Required: No

## Summary

A run summary for the specific crawl in JSON. Contains the catalog tables and partitions that were added, updated, or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CrawlerMetrics

Metrics for a specified crawler.

## Contents

### CrawlerName

The name of the crawler.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### LastRuntimeSeconds

The duration of the crawler's most recent run, in seconds.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

### MedianRuntimeSeconds

The median duration of this crawler's runs, in seconds.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

### StillEstimating

True if the crawler is still estimating how long it will take to complete this run.

Type: Boolean

Required: No

## **TablesCreated**

The number of tables created by this crawler.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## **TablesDeleted**

The number of tables deleted by this crawler.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## **TablesUpdated**

The number of tables updated by this crawler.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## **TimeLeftSeconds**

The estimated time left to complete a running crawl.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CrawlerNodeDetails

The details of a Crawler node present in the workflow.

## Contents

### Crawls

A list of crawls represented by the crawl node.

Type: Array of [Crawl](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CrawlerTargets

Specifies data stores to crawl.

## Contents

### CatalogTargets

Specifies AWS Glue Data Catalog targets.

Type: Array of [CatalogTarget](#) objects

Required: No

### DeltaTargets

Specifies Delta data store targets.

Type: Array of [DeltaTarget](#) objects

Required: No

### DynamoDBTargets

Specifies Amazon DynamoDB targets.

Type: Array of [DynamoDBTarget](#) objects

Required: No

### HudiTargets

Specifies Apache Hudi data store targets.

Type: Array of [HudiTarget](#) objects

Required: No

### IcebergTargets

Specifies Apache Iceberg data store targets.

Type: Array of [IcebergTarget](#) objects

Required: No

## JdbcTargets

Specifies JDBC targets.

Type: Array of [JdbcTarget](#) objects

Required: No

## MongoDBTargets

Specifies Amazon DocumentDB or MongoDB targets.

Type: Array of [MongoDBTarget](#) objects

Required: No

## S3Targets

Specifies Amazon Simple Storage Service (Amazon S3) targets.

Type: Array of [S3Target](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CrawlsFilter

A list of fields, comparators and value that you can use to filter the crawler runs for a specified crawler.

## Contents

### FieldName

A key used to filter the crawler runs for a specified crawler. Valid values for each of the field names are:

- `CRAWL_ID`: A string representing the UUID identifier for a crawl.
- `STATE`: A string representing the state of the crawl.
- `START_TIME` and `END_TIME`: The epoch timestamp in milliseconds.
- `DPU_HOUR`: The number of data processing unit (DPU) hours used for the crawl.

Type: String

Valid Values: `CRAWL_ID` | `STATE` | `START_TIME` | `END_TIME` | `DPU_HOUR`

Required: No

### FieldValue

The value provided for comparison on the crawl field.

Type: String

Required: No

### FilterOperator

A defined comparator that operates on the value. The available operators are:

- `GT`: Greater than.
- `GE`: Greater than or equal to.
- `LT`: Less than.
- `LE`: Less than or equal to.
- `EQ`: Equal to.
- `NE`: Not equal to.



Type: String

Valid Values: GT | GE | LT | LE | EQ | NE

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CreateCsvClassifierRequest

Specifies a custom CSV classifier for `CreateClassifier` to create.

## Contents

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### AllowSingleColumn

Enables the processing of files that contain only one column.

Type: Boolean

Required: No

### ContainsHeader

Indicates whether the CSV file contains a header.

Type: String

Valid Values: UNKNOWN | PRESENT | ABSENT

Required: No

### CustomDatatypeConfigured

Enables the configuration of custom datatypes.

Type: Boolean

Required: No

### CustomDatatypes

Creates a list of supported custom datatypes.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Delimiter**

A custom symbol to denote what separates each column entry in the row.

Type: String

Length Constraints: Fixed length of 1.

Pattern: `[\^\r\n]`

Required: No

### **DisableValueTrimming**

Specifies not to trim values before identifying the type of column values. The default value is true.

Type: Boolean

Required: No

### **Header**

A list of strings representing column names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **QuoteSymbol**

A custom symbol to denote what combines content into a single column value. Must be different from the column delimiter.

Type: String

Length Constraints: Fixed length of 1.

Pattern: [^\r\n]

Required: No

## Serde

Sets the SerDe for processing CSV in the classifier, which will be applied in the Data Catalog. Valid values are `OpenCSVSerde`, `LazySimpleSerDe`, and `None`. You can specify the `None` value when you want the crawler to do the detection.

Type: String

Valid Values: `OpenCSVSerde` | `LazySimpleSerDe` | `None`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CreateGrokClassifierRequest

Specifies a grok classifier for `CreateClassifier` to create.

## Contents

### Classification

An identifier of the data format that the classifier matches, such as Twitter, JSON, Omniture logs, Amazon CloudWatch Logs, and so on.

Type: String

Required: Yes

### GrokPattern

The grok pattern used by this classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\t]*`

Required: Yes

### Name

The name of the new classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CustomPatterns

Optional custom grok patterns used by this classifier.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16000.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CreateJsonClassifierRequest

Specifies a JSON classifier for `CreateClassifier` to create.

## Contents

### JsonPath

A `JsonPath` string defining the JSON data for the classifier to classify. AWS Glue supports a subset of `JsonPath`, as described in [Writing JsonPath Custom Classifiers](#).

Type: String

Required: Yes

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CreateXMLClassifierRequest

Specifies an XML classifier for `CreateClassifier` to create.

## Contents

### Classification

An identifier of the data format that the classifier matches.

Type: String

Required: Yes

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RowTag

The XML tag designating the element that contains each record in an XML document being parsed. This can't identify a self-closing element (closed by `/>`). An empty row element that contains only attributes can be parsed as long as it ends with a closing tag (for example, `<row item_a="A" item_b="B"></row>` is okay, but `<row item_a="A" item_b="B" />` is not).

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CsvClassifier

A classifier for custom CSV content.

## Contents

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### AllowSingleColumn

Enables the processing of files that contain only one column.

Type: Boolean

Required: No

### ContainsHeader

Indicates whether the CSV file contains a header.

Type: String

Valid Values: UNKNOWN | PRESENT | ABSENT

Required: No

### CreationTime

The time that this classifier was registered.

Type: Timestamp

Required: No

## CustomDatatypeConfigured

Enables the custom datatype to be configured.

Type: Boolean

Required: No

## CustomDatatypes

A list of custom datatypes including "BINARY", "BOOLEAN", "DATE", "DECIMAL", "DOUBLE", "FLOAT", "INT", "LONG", "SHORT", "STRING", "TIMESTAMP".

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Delimiter

A custom symbol to denote what separates each column entry in the row.

Type: String

Length Constraints: Fixed length of 1.

Pattern: `[^\r\n]`

Required: No

## DisableValueTrimming

Specifies not to trim values before identifying the type of column values. The default value is `true`.

Type: Boolean

Required: No

## Header

A list of strings representing column names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **LastUpdated**

The time that this classifier was last updated.

Type: Timestamp

Required: No

### **QuoteSymbol**

A custom symbol to denote what combines content into a single column value. It must be different from the column delimiter.

Type: String

Length Constraints: Fixed length of 1.

Pattern: `[^\r\n]`

Required: No

### **Serde**

Sets the SerDe for processing CSV in the classifier, which will be applied in the Data Catalog. Valid values are `OpenCSVSerde`, `LazySimpleSerDe`, and `None`. You can specify the `None` value when you want the crawler to do the detection.

Type: String

Valid Values: `OpenCSVSerde` | `LazySimpleSerDe` | `None`

Required: No

### **Version**

The version of this classifier.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomCode

Specifies a transform that uses custom code you provide to perform the data transformation. The output is a collection of DynamicFrames.

## Contents

### ClassName

The name defined for the custom code node class.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

### Code

The custom code that is used to perform the data transformation.

Type: String

Pattern: `[\\s\\S]*`

Required: Yes

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

## OutputSchemas

Specifies the data schema for the custom code transform.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomEntityType

An object representing a custom pattern for detecting sensitive data across the columns and rows of your structured data.

## Contents

### Name

A name for the custom pattern that allows it to be retrieved or deleted later. This name must be unique per AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### RegexString

A regular expression string that is used for detecting sensitive data in a custom pattern.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### ContextWords

A list of context words. If none of these context words are found within the vicinity of the regular expression the data will not be detected as sensitive data.

If no context words are passed only a regular expression is checked.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Minimum length of 1. Maximum length of 255.



Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Database

The Database object represents a logical grouping of tables that might reside in a Hive metastore or an RDBMS.

## Contents

### Name

The name of the database. For Hive compatibility, this is folded to lowercase when it is stored.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CatalogId

The ID of the Data Catalog in which the database resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CreateTableDefaultPermissions

Creates a set of default permissions on the table for principals. Used by AWS Lake Formation. Not used in the normal course of AWS Glue operations.

Type: Array of [PrincipalPermissions](#) objects

Required: No

### CreateTime

The time at which the metadata database was created in the catalog.

Type: Timestamp

Required: No

## Description

A description of the database.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## FederatedDatabase

A FederatedDatabase structure that references an entity outside the AWS Glue Data Catalog.

Type: [FederatedDatabase](#) object

Required: No

## LocationUri

The location of the database (for example, an HDFS path).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## Parameters

These key-value pairs define parameters and properties of the database.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

## TargetDatabase

A `DatabaseIdentifier` structure that describes a target database for resource linking.

Type: [DatabaseIdentifier](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Databaseldentifier

A structure that describes a target database for resource linking.

## Contents

### CatalogId

The ID of the Data Catalog in which the database resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Region

Region of the target database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DatabaseInput

The structure used to create or update a database.

## Contents

### Name

The name of the database. For Hive compatibility, this is folded to lowercase when it is stored.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CreateTableDefaultPermissions

Creates a set of default permissions on the table for principals. Used by AWS Lake Formation. Not used in the normal course of AWS Glue operations.

Type: Array of [PrincipalPermissions](#) objects

Required: No

### Description

A description of the database.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### FederatedDatabase

A FederatedDatabase structure that references an entity outside the AWS Glue Data Catalog.

Type: [FederatedDatabase](#) object

Required: No

### LocationUri

The location of the database (for example, an HDFS path).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### Parameters

These key-value pairs define parameters and properties of the database.

These key-value pairs define parameters and properties of the database.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

### TargetDatabase

A `DatabaseIdentifier` structure that describes a target database for resource linking.

Type: [DatabaseIdentifier](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataCatalogEncryptionSettings

Contains configuration information for maintaining Data Catalog security.

## Contents

### ConnectionPasswordEncryption

When connection password protection is enabled, the Data Catalog uses a customer-provided key to encrypt the password as part of `CreateConnection` or `UpdateConnection` and store it in the `ENCRYPTED_PASSWORD` field in the connection properties. You can enable catalog encryption or only password encryption.

Type: [ConnectionPasswordEncryption](#) object

Required: No

### EncryptionAtRest

Specifies the encryption-at-rest configuration for the Data Catalog.

Type: [EncryptionAtRest](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataLakePrincipal

The AWS Lake Formation principal.

## Contents

### DataLakePrincipalIdentifier

An identifier for the AWS Lake Formation principal.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityAnalyzerResult

Describes the result of the evaluation of a data quality analyzer.

## Contents

### Description

A description of the data quality analyzer.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### EvaluatedMetrics

A map of metrics associated with the evaluation of the analyzer.

Type: String to double map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### EvaluationMessage

An evaluation message.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### Name

The name of the data quality analyzer.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityEvaluationRunAdditionalRunOptions

Additional run options you can specify for an evaluation run.

## Contents

### CloudWatchMetricsEnabled

Whether or not to enable CloudWatch metrics.

Type: Boolean

Required: No

### ResultsS3Prefix

Prefix for Amazon S3 to store results.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityMetricValues

Describes the data quality metric value according to the analysis of historical data.

## Contents

### ActualValue

The actual value of the data quality metric.

Type: Double

Required: No

### ExpectedValue

The expected value of the data quality metric according to the analysis of historical data.

Type: Double

Required: No

### LowerLimit

The lower limit of the data quality metric value according to the analysis of historical data.

Type: Double

Required: No

### UpperLimit

The upper limit of the data quality metric value according to the analysis of historical data.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DataQualityObservation

Describes the observation generated after evaluating the rules and analyzers.

## Contents

### Description

A description of the data quality observation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### MetricBasedObservation

An object of type `MetricBasedObservation` representing the observation that is based on evaluated data quality metrics.

Type: [MetricBasedObservation](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityResult

Describes a data quality result.

## Contents

### AnalyzerResults

A list of `DataQualityAnalyzerResult` objects representing the results for each analyzer.

Type: Array of [DataQualityAnalyzerResult](#) objects

Array Members: Minimum number of 0 items. Maximum number of 2000 items.

Required: No

### CompletedOn

The date and time when this data quality run completed.

Type: Timestamp

Required: No

### DataSource

The table associated with the data quality result, if any.

Type: [DataSource](#) object

Required: No

### EvaluationContext

In the context of a job in AWS Glue Studio, each node in the canvas is typically assigned some sort of name and data quality nodes will have names. In the case of multiple nodes, the `evaluationContext` can differentiate the nodes.

Type: String

Required: No

### JobName

The job name associated with the data quality result, if any.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **JobRunId**

The job run ID associated with the data quality result, if any.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Observations**

A list of `DataQualityObservation` objects representing the observations generated after evaluating the rules and analyzers.

Type: Array of [DataQualityObservation](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **ResultId**

A unique result ID for the data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **RuleResults**

A list of `DataQualityRuleResult` objects representing the results for each rule.

Type: Array of [DataQualityRuleResult](#) objects

Array Members: Minimum number of 0 items. Maximum number of 2000 items.

Required: No

### **RulesetEvaluationRunId**

The unique run ID for the ruleset evaluation for this data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **RulesetName**

The name of the ruleset associated with the data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Score**

An aggregate data quality score. Represents the ratio of rules that passed to the total number of rules.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

### **StartedOn**

The date and time when this data quality run started.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityResultDescription

Describes a data quality result.

## Contents

### DataSource

The table name associated with the data quality result.

Type: [DataSource](#) object

Required: No

### JobName

The job name associated with the data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobRunId

The job run ID associated with the data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ResultId

The unique result ID for this data quality result.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **StartedOn**

The time that the run started for this data quality result.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityResultFilterCriteria

Criteria used to return data quality results.

## Contents

### DataSource

Filter results by the specified data source. For example, retrieving all results for an AWS Glue table.

Type: [DataSource](#) object

Required: No

### JobName

Filter results by the specified job name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobRunId

Filter results by the specified job run ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### StartedAfter

Filter results by runs that started after this time.

Type: Timestamp



Required: No

## StartedBefore

Filter results by runs that started before this time.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityRuleRecommendationRunDescription

Describes the result of a data quality rule recommendation run.

## Contents

### DataSource

The data source (AWS Glue table) associated with the recommendation run.

Type: [DataSource](#) object

Required: No

### RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### StartedOn

The date and time when this run started.

Type: Timestamp

Required: No

### Status

The status for this run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityRuleRecommendationRunFilter

A filter for listing data quality recommendation runs.

## Contents

### DataSource

Filter based on a specified data source (AWS Glue table).

Type: [DataSource](#) object

Required: Yes

### StartedAfter

Filter based on time for results started after provided time.

Type: Timestamp

Required: No

### StartedBefore

Filter based on time for results started before provided time.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityRuleResult

Describes the result of the evaluation of a data quality rule.

## Contents

### Description

A description of the data quality rule.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### EvaluatedMetrics

A map of metrics associated with the evaluation of the rule.

Type: String to double map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### EvaluationMessage

An evaluation message.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### Name

The name of the data quality rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Result

A pass or fail status for the rule.

Type: String

Valid Values: PASS | FAIL | ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityRulesetEvaluationRunDescription

Describes the result of a data quality ruleset evaluation run.

## Contents

### DataSource

The data source (an AWS Glue table) associated with the run.

Type: [DataSource](#) object

Required: No

### RunId

The unique run identifier associated with this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### StartedOn

The date and time when the run started.

Type: Timestamp

Required: No

### Status

The status for this run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DataQualityRulesetEvaluationRunFilter

The filter criteria.

## Contents

### DataSource

Filter based on a data source (an AWS Glue table) associated with the run.

Type: [DataSource](#) object

Required: Yes

### StartedAfter

Filter results by runs that started after this time.

Type: Timestamp

Required: No

### StartedBefore

Filter results by runs that started before this time.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityRulesetFilterCriteria

The criteria used to filter data quality rulesets.

## Contents

### CreatedAfter

Filter on rulesets created after this date.

Type: Timestamp

Required: No

### CreatedBefore

Filter on rulesets created before this date.

Type: Timestamp

Required: No

### Description

The description of the ruleset filter criteria.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LastModifiedAfter

Filter on rulesets last modified after this date.

Type: Timestamp

Required: No

### LastModifiedBefore

Filter on rulesets last modified before this date.

Type: Timestamp

Required: No

## Name

The name of the ruleset filter criteria.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## TargetTable

The name and database name of the target table.

Type: [DataQualityTargetTable](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityRulesetListDetails

Describes a data quality ruleset returned by `GetDataQualityRuleset`.

## Contents

### CreatedOn

The date and time the data quality ruleset was created.

Type: Timestamp

Required: No

### Description

A description of the data quality ruleset.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LastModifiedOn

The date and time the data quality ruleset was last modified.

Type: Timestamp

Required: No

### Name

The name of the data quality ruleset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## RecommendationRunId

When a ruleset was created from a recommendation run, this run ID is generated to link the two together.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## RuleCount

The number of rules in the ruleset.

Type: Integer

Required: No

## TargetTable

An object representing an AWS Glue table.

Type: [DataQualityTargetTable](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityTargetTable

An object representing an AWS Glue table.

## Contents

### DatabaseName

The name of the database where the AWS Glue table exists.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the AWS Glue table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CatalogId

The catalog id where the AWS Glue table exists.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataSource

A data source (an AWS Glue table) for which you want data quality results.

## Contents

### GlueTable

An AWS Glue table.

Type: [GlueTable](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Datatype

A structure representing the datatype of the value.

## Contents

### Id

The datatype of the value.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Label

A label assigned to the datatype.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DateColumnStatisticsData

Defines column statistics supported for timestamp data columns.

## Contents

### NumberOfDistinctValues

The number of distinct values in a column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### MaximumValue

The highest value in the column.

Type: Timestamp

Required: No

### MinimumValue

The lowest value in the column.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DecimalColumnStatisticsData

Defines column statistics supported for fixed-point number data columns.

## Contents

### NumberOfDistinctValues

The number of distinct values in a column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### MaximumValue

The highest value in the column.

Type: [DecimalNumber](#) object

Required: No

### MinimumValue

The lowest value in the column.

Type: [DecimalNumber](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DecimalNumber

Contains a numeric value in decimal format.

## Contents

### Scale

The scale that determines where the decimal point falls in the unscaled value.

Type: Integer

Required: Yes

### UnscaledValue

The unscaled numeric value.

Type: Base64-encoded binary data object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeltaTarget

Specifies a Delta data store to crawl one or more Delta tables.

## Contents

### ConnectionName

The name of the connection to use to connect to the Delta table target.

Type: String

Required: No

### CreateNativeDeltaTable

Specifies whether the crawler will create native tables, to allow integration with query engines that support querying of the Delta transaction log directly.

Type: Boolean

Required: No

### DeltaTables

A list of the Amazon S3 paths to the Delta tables.

Type: Array of strings

Required: No

### WriteManifest

Specifies whether to write the manifest files to the Delta table path.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DevEndpoint

A development endpoint where a developer can remotely debug extract, transform, and load (ETL) scripts.

## Contents

### Arguments

A map of arguments used to configure the DevEndpoint.

Valid arguments are:

- `--enable-glue-datacatalog`: `""`

You can specify a version of Python support for development endpoints by using the `Arguments` parameter in the `CreateDevEndpoint` or `UpdateDevEndpoint` APIs. If no arguments are provided, the version defaults to Python 2.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Required: No

### AvailabilityZone

The AWS Availability Zone where this DevEndpoint is located.

Type: String

Required: No

### CreatedTimestamp

The point in time at which this DevEndpoint was created.

Type: Timestamp

Required: No

### EndpointName


The name of the DevEndpoint.

Type: String

Required: No

### ExtraJarsS3Path

The path to one or more Java `.jar` files in an S3 bucket that should be loaded in your DevEndpoint.

 **Note**


You can only use pure Java/Scala libraries with a DevEndpoint.

Type: String

Required: No

### ExtraPythonLibsS3Path

The paths to one or more Python libraries in an Amazon S3 bucket that should be loaded in your DevEndpoint. Multiple values must be complete paths separated by a comma.

 **Note**

You can only use pure Python libraries with a DevEndpoint. Libraries that rely on C extensions, such as the [pandas](#) Python data analysis library, are not currently supported.

Type: String

Required: No

### FailureReason

The reason for a current failure in this DevEndpoint.

Type: String

Required: No

### GlueVersion

Glue version determines the versions of Apache Spark and Python that AWS Glue supports. The Python version indicates the version supported for running your ETL scripts on development endpoints.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Development endpoints that are created without specifying a Glue version default to Glue 0.9.

You can specify a version of Python support for development endpoints by using the `Arguments` parameter in the `CreateDevEndpoint` or `UpdateDevEndpoint` APIs. If no arguments are provided, the version defaults to Python 2.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### **LastModifiedTimestamp**

The point in time at which this `DevEndpoint` was last modified.

Type: Timestamp

Required: No

### **LastUpdateStatus**

The status of the last update.

Type: String

Required: No

### **NumberOfNodes**

The number of AWS Glue Data Processing Units (DPUs) allocated to this `DevEndpoint`.

Type: Integer

Required: No

### **NumberOfWorkers**

The number of workers of a defined `workerType` that are allocated to the development endpoint.

The maximum number of workers you can define are 299 for G.1X, and 149 for G.2X.

Type: Integer

Required: No

### **PrivateAddress**

A private IP address to access the DevEndpoint within a VPC if the DevEndpoint is created within one. The PrivateAddress field is present only when you create the DevEndpoint within your VPC.

Type: String

Required: No

### **PublicAddress**

The public IP address used by this DevEndpoint. The PublicAddress field is present only when you create a non-virtual private cloud (VPC) DevEndpoint.

Type: String

Required: No

### **PublicKey**

The public key to be used by this DevEndpoint for authentication. This attribute is provided for backward compatibility because the recommended attribute to use is public keys.

Type: String

Required: No

### **PublicKeys**

A list of public keys to be used by the DevEndpoints for authentication. Using this attribute is preferred over a single public key because the public keys allow you to have a different private key per client.

#### **Note**

If you previously created an endpoint with a public key, you must remove that key to be able to set a list of public keys. Call the UpdateDevEndpoint API operation with the

public key content in the `deletePublicKeys` attribute, and the list of new keys in the `addPublicKeys` attribute.

Type: Array of strings

Array Members: Maximum number of 5 items.

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) of the IAM role used in this `DevEndpoint`.

Type: String

Pattern: `arn:aws:iam::\d{12}:role/.*`

Required: No

### **SecurityConfiguration**

The name of the `SecurityConfiguration` structure to be used with this `DevEndpoint`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **SecurityGroupIds**

A list of security group identifiers used in this `DevEndpoint`.

Type: Array of strings

Required: No

### **Status**

The current status of this `DevEndpoint`.

Type: String

Required: No

### **SubnetId**

The subnet ID for this DevEndpoint.

Type: String

Required: No

### **VpcId**

The ID of the virtual private cloud (VPC) used by this DevEndpoint.

Type: String

Required: No

### **WorkerType**

The type of predefined worker that is allocated to the development endpoint. Accepts a value of Standard, G.1X, or G.2X.

- For the Standard worker type, each worker provides 4 vCPU, 16 GB of memory and a 50GB disk, and 2 executors per worker.
- For the G.1X worker type, each worker maps to 1 DPU (4 vCPU, 16 GB of memory, 64 GB disk), and provides 1 executor per worker. We recommend this worker type for memory-intensive jobs.
- For the G.2X worker type, each worker maps to 2 DPU (8 vCPU, 32 GB of memory, 128 GB disk), and provides 1 executor per worker. We recommend this worker type for memory-intensive jobs.

Known issue: when a development endpoint is created with the G.2X WorkerType configuration, the Spark drivers for the development endpoint will run on 4 vCPU, 16 GB of memory, and a 64 GB disk.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

### **YarnEndpointAddress**

The YARN endpoint address used by this DevEndpoint.

Type: String

Required: No

### **ZeppelinRemoteSparkInterpreterPort**

The Apache Zeppelin port for the remote Apache Spark interpreter.

Type: Integer

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DevEndpointCustomLibraries

Custom libraries to be loaded into a development endpoint.

## Contents

### ExtraJarsS3Path

The path to one or more Java `.jar` files in an S3 bucket that should be loaded in your DevEndpoint.

#### Note

You can only use pure Java/Scala libraries with a DevEndpoint.

Type: String

Required: No

### ExtraPythonLibsS3Path

The paths to one or more Python libraries in an Amazon Simple Storage Service (Amazon S3) bucket that should be loaded in your DevEndpoint. Multiple values must be complete paths separated by a comma.

#### Note

You can only use pure Python libraries with a DevEndpoint. Libraries that rely on C extensions, such as the [pandas](#) Python data analysis library, are not currently supported.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DirectJDBCSource

Specifies the direct JDBC source connection.

## Contents

### ConnectionName

The connection name of the JDBC source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### ConnectionType

The connection type of the JDBC source.

Type: String

Valid Values: `sqlserver` | `mysql` | `oracle` | `postgresql` | `redshift`

Required: Yes

### Database

The database of the JDBC source connection.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Name

The name of the JDBC source connection.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

## Table

The table of the JDBC source connection.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

## RedshiftTmpDir

The temp directory of the JDBC Redshift source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DirectKafkaSource

Specifies an Apache Kafka data store.

## Contents

### Name

The name of the data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF] | [^\\r\\n]`)\*

Required: Yes

### DataPreviewOptions

Specifies options related to data preview for viewing a sample of your data.

Type: [StreamingDataPreviewOptions](#) object

Required: No

### DetectSchema

Whether to automatically determine the schema from the incoming data.

Type: Boolean

Required: No

### StreamingOptions

Specifies the streaming options.

Type: [KafkaStreamingSourceOptions](#) object

Required: No

### WindowSize

The amount of time to spend processing each micro batch.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DirectKinesisSource

Specifies a direct Amazon Kinesis data source.

## Contents

### Name

The name of the data source.

Type: String

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]` | `[\^\r\n]`)\*

Required: Yes

### DataPreviewOptions

Additional options for data preview.

Type: [StreamingDataPreviewOptions](#) object

Required: No

### DetectSchema

Whether to automatically determine the schema from the incoming data.

Type: Boolean

Required: No

### StreamingOptions

Additional options for the Kinesis streaming data source.

Type: [KinesisStreamingSourceOptions](#) object

Required: No

### WindowSize

The amount of time to spend processing each micro batch.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DirectSchemaChangePolicy

A policy that specifies update behavior for the crawler.

## Contents

### Database

Specifies the database that the schema change policy applies to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### EnableUpdateCatalog

Whether to use the specified update behavior when the crawler finds a changed schema.

Type: Boolean

Required: No

### Table

Specifies the table in the database that the schema change policy applies to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### UpdateBehavior

The update behavior when the crawler finds a changed schema.

Type: String

Valid Values: UPDATE\_IN\_DATABASE | LOG

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DoubleColumnStatisticsData

Defines column statistics supported for floating-point number data columns.

## Contents

### NumberOfDistinctValues

The number of distinct values in a column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### MaximumValue

The highest value in the column.

Type: Double

Required: No

### MinimumValue

The lowest value in the column.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DQResultsPublishingOptions

Options to configure how your data quality evaluation results are published.

## Contents

### CloudWatchMetricsEnabled

Enable metrics for your data quality results.

Type: Boolean

Required: No

### EvaluationContext

The context of the evaluation.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### ResultsPublishingEnabled

Enable publishing for your data quality results.

Type: Boolean

Required: No

### ResultsS3Prefix

The Amazon S3 prefix prepended to the results.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\\S\\r\\n"' ])\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DQStopJobOnFailureOptions

Options to configure how your job will stop if your data quality evaluation fails.

## Contents

### StopJobOnFailureTiming

When to stop job if your data quality evaluation fails. Options are Immediate or AfterDataLoad.

Type: String

Valid Values: Immediate | AfterDataLoad

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DropDuplicates

Specifies a transform that removes rows of repeating data from a data set.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: ([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])\*

Required: Yes

### Columns

The name of the columns to be merged or removed if repeating.

Type: Array of arrays of strings

Pattern: [A-Za-z0-9\_-]\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DropFields

Specifies a transform that chooses the data property keys that you want to drop.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### Paths

A JSON path to a variable in the data structure.

Type: Array of arrays of strings

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DropNullFields

Specifies a transform that removes columns from the dataset if all values in the column are 'null'. By default, AWS Glue Studio will recognize null objects, but some values such as empty strings, strings that are "null", -1 integers or other placeholders such as zeros, are not automatically recognized as nulls.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: ([\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF] | [^\r\n])\*

Required: Yes

### NullCheckBoxList

A structure that represents whether certain values are recognized as null values for removal.

Type: [NullCheckBoxList](#) object

Required: No

### NullTextList

A structure that specifies a list of NullValueField structures that represent a custom null value such as zero or other value being used as a null placeholder unique to the dataset.

The `DropNullFields` transform removes custom null values only if both the value of the null placeholder and the datatype match the data.

Type: Array of [NullValueField](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DynamicTransform

Specifies the set of parameters needed to perform the dynamic transform.

## Contents

### FunctionName

Specifies the name of the function of the dynamic transform.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Inputs

Specifies the inputs for the dynamic transform that are required.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

Specifies the name of the dynamic transform.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Path

Specifies the path of the dynamic transform source and config files.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### **TransformName**

Specifies the name of the dynamic transform as it appears in the AWS Glue Studio visual editor.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### **OutputSchemas**

Specifies the data schema for the dynamic transform.

Type: Array of [GlueSchema](#) objects

Required: No

### **Parameters**

Specifies the parameters of the dynamic transform.

Type: Array of [TransformConfigParameter](#) objects

Required: No

### **Version**

This field is not used and will be deprecated in future release.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DynamoDBCatalogSource

Specifies a DynamoDB data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DynamoDBTarget

Specifies an Amazon DynamoDB table to crawl.

## Contents

### Path

The name of the DynamoDB table to crawl.

Type: String

Required: No

### scanAll

Indicates whether to scan all the records, or to sample rows from the table. Scanning all the records can take a long time when the table is not a high throughput table.

A value of `true` means to scan all records, while a value of `false` means to sample the records. If no value is specified, the value defaults to `true`.

Type: Boolean

Required: No

### scanRate

The percentage of the configured read capacity units to use by the AWS Glue crawler. Read capacity units is a term defined by DynamoDB, and is a numeric value that acts as rate limiter for the number of reads that can be performed on that table per second.

The valid values are null or a value between 0.1 to 1.5. A null value is used when user does not provide a value, and defaults to 0.5 of the configured Read Capacity Unit (for provisioned tables), or 0.25 of the max configured Read Capacity Unit (for tables using on-demand mode).

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Edge

An edge represents a directed connection between two AWS Glue components that are part of the workflow the edge belongs to.

## Contents

### DestinationId

The unique of the node within the workflow where the edge ends.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### SourceId

The unique of the node within the workflow where the edge starts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EncryptionAtRest

Specifies the encryption-at-rest configuration for the Data Catalog.

## Contents

### CatalogEncryptionMode

The encryption-at-rest mode for encrypting Data Catalog data.

Type: String

Valid Values: DISABLED | SSE-KMS | SSE-KMS-WITH-SERVICE-ROLE

Required: Yes

### CatalogEncryptionServiceRole

The role that AWS Glue assumes to encrypt and decrypt the Data Catalog objects on the caller's behalf.

Type: String

Pattern: `^arn:aws(-[cn|us-gov|iso(-[bef])?]):iam::[0-9]{12}:role/.+`

Required: No

### SseAwsKmsKeyId

The ID of the AWS KMS key to use for encryption at rest.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EncryptionConfiguration

Specifies an encryption configuration.

## Contents

### CloudWatchEncryption

The encryption configuration for Amazon CloudWatch.

Type: [CloudWatchEncryption](#) object

Required: No

### JobBookmarksEncryption

The encryption configuration for job bookmarks.

Type: [JobBookmarksEncryption](#) object

Required: No

### S3Encryption

The encryption configuration for Amazon Simple Storage Service (Amazon S3) data.

Type: Array of [S3Encryption](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ErrorDetail

Contains details about an error.

## Contents

### ErrorCode

The code associated with this error.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ErrorMessage

A message describing the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ErrorDetails

An object containing error details.

## Contents

### ErrorCode

The error code for an error.

Type: String

Required: No

### ErrorMessage

The error message for an error.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EvaluateDataQuality

Specifies your data quality evaluation criteria.

## Contents

### Inputs

The inputs of your data quality evaluation.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the data quality evaluation.

Type: String

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### Ruleset

The ruleset for your data quality evaluation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: `([\u0020-\u007E\r\s\n])*`

Required: Yes

### Output

The output of your data quality evaluation.

Type: String

Valid Values: PrimaryInput | EvaluationResults

Required: No

### **PublishingOptions**

Options to configure how your results are published.

Type: [DQResultsPublishingOptions](#) object

Required: No

### **StopJobOnFailureOptions**

Options to configure how your job will stop if your data quality evaluation fails.

Type: [DQStopJobOnFailureOptions](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EvaluateDataQualityMultiFrame

Specifies your data quality evaluation criteria.

## Contents

### Inputs

The inputs of your data quality evaluation. The first input in this list is the primary data source.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Name

The name of the data quality evaluation.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])\*

Required: Yes

### Ruleset

The ruleset for your data quality evaluation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65536.

Pattern: ([\u0020-\u007E\r\s\n])\*

Required: Yes

### AdditionalDataSources

The aliases of all data sources except primary.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n]`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: No

### AdditionalOptions

Options to configure runtime behavior of the transform.

Type: String to string map

Valid Keys: `performanceTuning.caching` | `observations.scope`

Required: No

### PublishingOptions

Options to configure how your results are published.

Type: [DQResultsPublishingOptions](#) object

Required: No

### StopJobOnFailureOptions

Options to configure how your job will stop if your data quality evaluation fails.

Type: [DQStopJobOnFailureOptions](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EvaluationMetrics

Evaluation metrics provide an estimate of the quality of your machine learning transform.

## Contents

### TransformType

The type of machine learning transform.

Type: String

Valid Values: FIND\_MATCHES

Required: Yes

### FindMatchesMetrics

The evaluation metrics for the find matches algorithm.

Type: [FindMatchesMetrics](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EventBatchingCondition

Batch condition that must be met (specified number of events received or batch time window expired) before EventBridge event trigger fires.

## Contents

### BatchSize

Number of events that must be received from Amazon EventBridge before EventBridge event trigger fires.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### BatchWindow

Window of time in seconds after which EventBridge event trigger fires. Window starts when first event is received.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 900.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExecutionProperty

An execution property of a job.

## Contents

### MaxConcurrentRuns

The maximum number of concurrent runs allowed for the job. The default is 1. An error is returned when this threshold is reached. The maximum value you can specify is controlled by a service limit.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ExportLabelsTaskRunProperties

Specifies configuration properties for an exporting labels task run.

## Contents

### OutputS3Path

The Amazon Simple Storage Service (Amazon S3) path where you will export the labels.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FederatedDatabase

A database that points to an entity outside the AWS Glue Data Catalog.

## Contents

### ConnectionName

The name of the connection to the external metastore.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Identifier

A unique identifier for the federated database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FederatedTable

A table that points to an entity outside the AWS Glue Data Catalog.

## Contents

### ConnectionName

The name of the connection to the external metastore.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseIdentifier

A unique identifier for the federated database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Identifier

A unique identifier for the federated table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FillMissingValues

Specifies a transform that locates records in the dataset that have missing values and adds a new field with a value determined by imputation. The input data set is used to train the machine learning model that determines what the missing value should be.

## Contents

### ImputedPath

A JSON path to a variable in the data structure for the dataset that is imputed.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### FilledPath

A JSON path to a variable in the data structure for the dataset that is filled.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Filter

Specifies a transform that splits a dataset into two, based on a filter condition.

## Contents

### Filters

Specifies a filter expression.

Type: Array of [FilterExpression](#) objects

Required: Yes

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### LogicalOperator

The operator used to filter rows by comparing the key value to a specified value.

Type: String

Valid Values: AND | OR

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# FilterExpression

Specifies a filter expression.

## Contents

### Operation

The type of operation to perform in the expression.

Type: String

Valid Values: EQ | LT | GT | LTE | GTE | REGEX | ISNULL

Required: Yes

### Values

A list of filter values.

Type: Array of [FilterValue](#) objects

Required: Yes

### Negated

Whether the expression is to be negated.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FilterValue

Represents a single entry in the list of values for a `FilterExpression`.

## Contents

### Type

The type of filter value.

Type: String

Valid Values: COLUMNEXTRACTED | CONSTANT

Required: Yes

### Value

The value to be associated.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FindMatchesMetrics

The evaluation metrics for the find matches algorithm. The quality of your machine learning transform is measured by getting your transform to predict some matches and comparing the results to known matches from the same dataset. The quality metrics are based on a subset of your data, so they are not precise.

## Contents

### AreaUnderPRCurve

The area under the precision/recall curve (AUPRC) is a single number measuring the overall quality of the transform, that is independent of the choice made for precision vs. recall. Higher values indicate that you have a more attractive precision vs. recall tradeoff.

For more information, see [Precision and recall](#) in Wikipedia.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

### ColumnImportances

A list of `ColumnImportance` structures containing column importance metrics, sorted in order of descending importance.

Type: Array of [ColumnImportance](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

### ConfusionMatrix

The confusion matrix shows you what your transform is predicting accurately and what types of errors it is making.

For more information, see [Confusion matrix](#) in Wikipedia.

Type: [ConfusionMatrix](#) object

Required: No

## F1

The maximum F1 metric indicates the transform's accuracy between 0 and 1, where 1 is the best accuracy.

For more information, see [F1 score](#) in Wikipedia.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

## Precision

The precision metric indicates when often your transform is correct when it predicts a match. Specifically, it measures how well the transform finds true positives from the total true positives possible.

For more information, see [Precision and recall](#) in Wikipedia.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

## Recall

The recall metric indicates that for an actual match, how often your transform predicts the match. Specifically, it measures how well the transform finds true positives from the total records in the source data.

For more information, see [Precision and recall](#) in Wikipedia.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FindMatchesParameters

The parameters to configure the find matches transform.

## Contents

### AccuracyCostTradeoff

The value that is selected when tuning your transform for a balance between accuracy and cost. A value of 0.5 means that the system balances accuracy and cost concerns. A value of 1.0 means a bias purely for accuracy, which typically results in a higher cost, sometimes substantially higher. A value of 0.0 means a bias purely for cost, which results in a less accurate FindMatches transform, sometimes with unacceptable accuracy.

Accuracy measures how well the transform finds true positives and true negatives. Increasing accuracy requires more machine resources and cost. But it also results in increased recall.

Cost measures how many compute resources, and thus money, are consumed to run the transform.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

### EnforceProvidedLabels

The value to switch on or off to force the output to match the provided labels from users. If the value is `True`, the `find matches` transform forces the output to match the provided labels. The results override the normal conflation results. If the value is `False`, the `find matches` transform does not ensure all the labels provided are respected, and the results rely on the trained model.

Note that setting this value to true may increase the conflation execution time.

Type: Boolean

Required: No

### PrecisionRecallTradeoff

The value selected when tuning your transform for a balance between precision and recall. A value of 0.5 means no preference; a value of 1.0 means a bias purely for precision, and a value

of 0.0 means a bias for recall. Because this is a tradeoff, choosing values close to 1.0 means very low recall, and choosing values close to 0.0 results in very low precision.

The precision metric indicates how often your model is correct when it predicts a match.

The recall metric indicates that for an actual match, how often your model predicts the match.

Type: Double

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

Required: No

### **PrimaryKeyColumnName**

The name of a column that uniquely identifies rows in the source table. Used to help identify matching records.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FindMatchesTaskRunProperties

Specifies configuration properties for a Find Matches task run.

## Contents

### JobId

The job ID for the Find Matches task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobName

The name assigned to the job for the Find Matches task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### JobRunId

The job run ID for the Find Matches task run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GetConnectionsFilter

Filters the connection definitions that are returned by the GetConnections API operation.

## Contents

### ConnectionType

The type of connections to return. Currently, SFTP is not supported.

Type: String

Valid Values: JDBC | SFTP | MONGODB | KAFKA | NETWORK | MARKETPLACE | CUSTOM

Required: No

### MatchCriteria

A criteria string that must match the criteria recorded in the connection definition for that connection definition to be returned.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GluePolicy

A structure for returning a resource policy.

## Contents

### CreateTime

The date and time at which the policy was created.

Type: Timestamp

Required: No

### PolicyHash

Contains the hash value associated with this policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### PolicyInJson

Contains the requested policy document, in JSON format.

Type: String

Length Constraints: Minimum length of 2.

Required: No

### UpdateTime

The date and time at which the policy was last updated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GlueSchema

Specifies a user-defined schema when a schema cannot be determined by AWS Glue.

## Contents

### Columns

Specifies the column definitions that make up a AWS Glue schema.

Type: Array of [GlueStudioSchemaColumn](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GlueStudioSchemaColumn

Specifies a single column in a AWS Glue schema definition.

## Contents

### Name

The name of the column in the AWS Glue Studio schema.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Type

The hive type for this column in the AWS Glue Studio schema.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131072.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GlueTable

The database and table in the AWS Glue Data Catalog that is used for input or output data.

## Contents

### DatabaseName

A database name in the AWS Glue Data Catalog.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

A table name in the AWS Glue Data Catalog.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### AdditionalOptions

Additional options for the table. Currently there are two keys supported:

- `pushDownPredicate`: to filter on partitions without having to list and read all the files in your dataset.
- `catalogPartitionPredicate`: to use server-side partition pruning using partition indexes in the AWS Glue Data Catalog.

Type: String to string map

Map Entries: Maximum number of 10 items.

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Minimum length of 0. Maximum length of 2048.

Value Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **CatalogId**

A unique identifier for the AWS Glue Data Catalog.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **ConnectionName**

The name of the connection to the AWS Glue Data Catalog.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# GovernedCatalogSource

Specifies the data store in the governed AWS Glue Data Catalog.

## Contents

### Database

The database to read from.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Name

The name of the data store.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])*`)

Required: Yes

### Table

The database table to read from.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### AdditionalOptions

Specifies additional connection options.

Type: [S3SourceAdditionalOptions](#) object

Required: No

## PartitionPredicate

Partitions satisfying this predicate are deleted. Files within the retention period in these partitions are not deleted. Set to "" – empty by default.

Type: String

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]` | `[\S\r\n"' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GovernedCatalogTarget

Specifies a data target that writes to Amazon S3 using the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

### PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: No

### SchemaChangePolicy

A policy that specifies update behavior for the governed catalog.

Type: [CatalogSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GrokClassifier

A classifier that uses grok patterns.

## Contents

### Classification

An identifier of the data format that the classifier matches, such as Twitter, JSON, Omniture logs, and so on.

Type: String

Required: Yes

### GrokPattern

The grok pattern applied to a data store by this classifier. For more information, see built-in patterns in [Writing Custom Classifiers](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\t]*`

Required: Yes

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CreationTime

The time that this classifier was registered.

Type: Timestamp

Required: No

### CustomPatterns

Optional custom grok patterns defined by this classifier. For more information, see custom patterns in [Writing Custom Classifiers](#).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16000.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LastUpdated

The time that this classifier was last updated.

Type: Timestamp

Required: No

### Version

The version of this classifier.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HudiTarget

Specifies an Apache Hudi data source.

## Contents

### ConnectionName

The name of the connection to use to connect to the Hudi target. If your Hudi files are stored in buckets that require VPC authorization, you can set their connection properties here.

Type: String

Required: No

### Exclusions

A list of glob patterns used to exclude from the crawl. For more information, see [Catalog Tables with a Crawler](#).

Type: Array of strings

Required: No

### MaximumTraversalDepth

The maximum depth of Amazon S3 paths that the crawler can traverse to discover the Hudi metadata folder in your Amazon S3 path. Used to limit the crawler run time.

Type: Integer

Required: No

### Paths

An array of Amazon S3 location strings for Hudi, each indicating the root folder with which the metadata files for a Hudi table resides. The Hudi folder may be located in a child folder of the root folder.

The crawler will scan all folders underneath a path for a Hudi folder.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# IcebergInput

A structure that defines an Apache Iceberg metadata table to create in the catalog.

## Contents

### MetadataOperation

A required metadata operation. Can only be set to CREATE.

Type: String

Valid Values: CREATE

Required: Yes

### Version

The table version for the Iceberg table. Defaults to 2.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IcebergTarget

Specifies an Apache Iceberg data source where Iceberg tables are stored in Amazon S3.

## Contents

### ConnectionName

The name of the connection to use to connect to the Iceberg target.

Type: String

Required: No

### Exclusions

A list of glob patterns used to exclude from the crawl. For more information, see [Catalog Tables with a Crawler](#).

Type: Array of strings

Required: No

### MaximumTraversalDepth

The maximum depth of Amazon S3 paths that the crawler can traverse to discover the Iceberg metadata folder in your Amazon S3 path. Used to limit the crawler run time.

Type: Integer

Required: No

### Paths

One or more Amazon S3 paths that contains Iceberg metadata folders as `s3://bucket/prefix`.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ImportLabelsTaskRunProperties

Specifies configuration properties for an importing labels task run.

## Contents

### InputS3Path

The Amazon Simple Storage Service (Amazon S3) path from where you will import the labels.

Type: String

Required: No

### Replace

Indicates whether to overwrite your existing labels.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JDBCConectorOptions

Additional connection options for the connector.

## Contents

### DataTypeMapping

Custom data type mapping that builds a mapping from a JDBC data type to an AWS Glue data type. For example, the option `"dataTypeMapping":{"FLOAT":"STRING"}` maps data fields of JDBC type `FLOAT` into the Java `String` type by calling the `ResultSet.getString()` method of the driver, and uses it to build the AWS Glue record. The `ResultSet` object is implemented by each driver, so the behavior is specific to the driver you use. Refer to the documentation for your JDBC driver to understand how the driver performs the conversions.

Type: String to string map

Valid Keys: ARRAY | BIGINT | BINARY | BIT | BLOB | BOOLEAN | CHAR | CLOB | DATALINK | DATE | DECIMAL | DISTINCT | DOUBLE | FLOAT | INTEGER | JAVA\_OBJECT | LONGNVARCHAR | LONGVARBINARY | LONGVARCHAR | NCHAR | NCLOB | NULL | NUMERIC | NVARCHAR | OTHER | REAL | REF | REF\_CURSOR | ROWID | SMALLINT | SQLXML | STRUCT | TIME | TIME\_WITH\_TIMEZONE | TIMESTAMP | TIMESTAMP\_WITH\_TIMEZONE | TINYINT | VARBINARY | VARCHAR

Valid Values: DATE | STRING | TIMESTAMP | INT | FLOAT | LONG | BIGDECIMAL | BYTE | SHORT | DOUBLE

Required: No

### FilterPredicate

Extra condition clause to filter data from source. For example:

```
BillingCity='Mountain View'
```

When using a query instead of a table name, you should validate that the query works with the specified `filterPredicate`.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: No

### **JobBookmarkKeys**

The name of the job bookmark keys on which to sort.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### **JobBookmarkKeysSortOrder**

Specifies an ascending or descending sort order.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### **LowerBound**

The minimum value of `partitionColumn` that is used to decide partition stride.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **NumPartitions**

The number of partitions. This value, along with `lowerBound` (inclusive) and `upperBound` (exclusive), form partition strides for generated `WHERE` clause expressions that are used to split the `partitionColumn`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

## PartitionColumn

The name of an integer column that is used for partitioning. This option works only when it's included with `lowerBound`, `upperBound`, and `numPartitions`. This option works the same way as in the Spark SQL JDBC reader.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

## UpperBound

The maximum value of `partitionColumn` that is used to decide partition stride.

Type: Long

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JDBCConectorSource

Specifies a connector to a JDBC data source.

## Contents

### ConnectionName

The name of the connection that is associated with the connector.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### ConnectionType

The type of connection, such as `marketplace.jdbc` or `custom.jdbc`, designating a connection to a JDBC data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### ConnectorName

The name of a connector that assists with accessing the data store in AWS Glue Studio.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String



Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### AdditionalOptions

Additional connection options for the connector.

Type: [JDBCConnectorOptions](#) object

Required: No

### ConnectionTable

The name of the table in the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n]`)\*

Required: No

### OutputSchemas

Specifies the data schema for the custom JDBC source.

Type: Array of [GlueSchema](#) objects

Required: No

### Query

The table or SQL query to get the data from. You can specify either `ConnectionTable` or `query`, but not both.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\s]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JDBCConectorTarget

Specifies a data target that writes to Amazon S3 in Apache Parquet columnar storage.

## Contents

### ConnectionName

The name of the connection that is associated with the connector.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### ConnectionTable

The name of the table in the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n]`)\*

Required: Yes

### ConnectionType

The type of connection, such as `marketplace.jdbc` or `custom.jdbc`, designating a connection to a JDBC data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### ConnectorName

The name of a connector that will be used.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: Yes

## Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

## Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n]`)\*

Required: Yes

## AdditionalOptions

Additional connection options for the connector.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: No

## OutputSchemas

Specifies the data schema for the JDBC target.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JdbcTarget

Specifies a JDBC data store to crawl.

## Contents

### ConnectionName

The name of the connection to use to connect to the JDBC target.

Type: String

Required: No

### EnableAdditionalMetadata

Specify a value of RAWTYPES or COMMENTS to enable additional metadata in table responses. RAWTYPES provides the native-level datatype. COMMENTS provides comments associated with a column or table in the database.

If you do not need additional metadata, keep the field empty.

Type: Array of strings

Valid Values: COMMENTS | RAWTYPES

Required: No

### Exclusions

A list of glob patterns used to exclude from the crawl. For more information, see [Catalog Tables with a Crawler](#).

Type: Array of strings

Required: No

### Path

The path of the JDBC target.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Job

Specifies a job definition.

## Contents

### AllocatedCapacity

This field is deprecated. Use `MaxCapacity` instead.

The number of AWS Glue data processing units (DPUs) allocated to runs of this job. You can allocate a minimum of 2 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

Type: Integer

Required: No

### CodeGenConfigurationNodes

The representation of a directed acyclic graph on which both the Glue Studio visual component and Glue Studio code generation is based.

Type: String to [CodeGenConfigurationNode](#) object map

Key Pattern: `[A-Za-z0-9_-]*`

Required: No

### Command

The `JobCommand` that runs this job.

Type: [JobCommand](#) object

Required: No

### Connections

The connections used for this job.

Type: [ConnectionsList](#) object



Required: No

### CreatedOn

The time and date that this job definition was created.

Type: Timestamp

Required: No

### DefaultArguments

The default arguments for every run of this job, specified as name-value pairs.

You can specify arguments here that your own job-execution script consumes, as well as arguments that AWS Glue itself consumes.

Job arguments may be logged. Do not pass plaintext secrets as arguments. Retrieve secrets from a AWS Glue Connection, AWS Secrets Manager or other secret management mechanism if you intend to keep them within the Job.

For information about how to specify and consume your own Job arguments, see the [Calling AWS Glue APIs in Python](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Spark jobs, see the [Special Parameters Used by AWS Glue](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Ray jobs, see [Using job parameters in Ray jobs](#) in the developer guide.

Type: String to string map

Required: No

### Description

A description of the job.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## ExecutionClass

Indicates whether the job is run with a standard or flexible execution class. The standard execution class is ideal for time-sensitive workloads that require fast job startup and dedicated resources.

The flexible execution class is appropriate for time-insensitive jobs whose start and completion times may vary.

Only jobs with AWS Glue version 3.0 and above and command type `glueetl` will be allowed to set `ExecutionClass` to `FLEX`. The flexible execution class is available for Spark jobs.

Type: String

Length Constraints: Maximum length of 16.

Valid Values: `FLEX` | `STANDARD`

Required: No

## ExecutionProperty

An `ExecutionProperty` specifying the maximum number of concurrent runs allowed for this job.

Type: [ExecutionProperty](#) object

Required: No

## GlueVersion

In Spark jobs, `GlueVersion` determines the versions of Apache Spark and Python that AWS Glue available in a job. The Python version indicates the version supported for jobs of type Spark.

Ray jobs should set `GlueVersion` to `4.0` or greater. However, the versions of Ray, Python and additional libraries available in your Ray job are determined by the `Runtime` parameter of the Job command.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Jobs that are created without specifying a Glue version default to Glue 0.9.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### **LastModifiedOn**

The last point in time when this job definition was modified.

Type: Timestamp

Required: No

### **LogUri**

This field is reserved for future use.

Type: String

Required: No

### **MaxCapacity**

For Glue version 1.0 or earlier jobs, using the standard worker type, the number of AWS Glue data processing units (DPUs) that can be allocated when this job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

For Glue version 2.0 or later jobs, you cannot specify a `MaximumCapacity`. Instead, you should specify a `WorkerType` and the `NumberOfWorkers`.

Do not set `MaxCapacity` if using `WorkerType` and `NumberOfWorkers`.

The value that can be allocated for `MaxCapacity` depends on whether you are running a Python shell job, an Apache Spark ETL job, or an Apache Spark streaming ETL job:

- When you specify a Python shell job (`JobCommand.Name="pythonshell"`), you can allocate either 0.0625 or 1 DPU. The default is 0.0625 DPU.
- When you specify an Apache Spark ETL job (`JobCommand.Name="glueetl"`) or Apache Spark streaming ETL job (`JobCommand.Name="gluestreaming"`), you can allocate from 2 to 100 DPUs. The default is 10 DPUs. This job type cannot have a fractional DPU allocation.

Type: Double

Required: No

### MaxRetries

The maximum number of times to retry this job after a JobRun fails.

Type: Integer

Required: No

### Name

The name you assign to this job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### NonOverridableArguments

Arguments for this job that are not overridden when providing job arguments in a job run, specified as name-value pairs.

Type: String to string map

Required: No

### NotificationProperty

Specifies configuration properties of a job notification.

Type: [NotificationProperty](#) object

Required: No

### NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when a job runs.

Type: Integer

Required: No

## Role

The name or Amazon Resource Name (ARN) of the IAM role associated with this job.

Type: String

Required: No

## SecurityConfiguration

The name of the SecurityConfiguration structure to be used with this job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## SourceControlDetails

The details for a source control configuration for a job, allowing synchronization of job artifacts to or from a remote repository.

Type: [SourceControlDetails](#) object

Required: No

## Timeout

The job timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## WorkerType

The type of predefined worker that is allocated when a job runs. Accepts a value of G.1X, G.2X, G.4X, G.8X or G.025X for Spark jobs. Accepts the value Z.2X for Ray jobs.

- For the G.1X worker type, each worker maps to 1 DPU (4 vCPUs, 16 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend

this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.

- For the G.2X worker type, each worker maps to 2 DPU (8 vCPUs, 32 GB of memory) with 128GB disk (approximately 77GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.4X worker type, each worker maps to 4 DPU (16 vCPUs, 64 GB of memory) with 256GB disk (approximately 235GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs in the following AWS Regions: US East (Ohio), US East (N. Virginia), US West (Oregon), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), Canada (Central), Europe (Frankfurt), Europe (Ireland), and Europe (Stockholm).
- For the G.8X worker type, each worker maps to 8 DPU (32 vCPUs, 128 GB of memory) with 512GB disk (approximately 487GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs, in the same AWS Regions as supported for the G.4X worker type.
- For the G.025X worker type, each worker maps to 0.25 DPU (2 vCPUs, 4 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for low volume streaming jobs. This worker type is only available for AWS Glue version 3.0 streaming jobs.
- For the Z.2X worker type, each worker maps to 2 M-DPU (8vCPUs, 64 GB of memory) with 128 GB disk (approximately 120GB free), and provides up to 8 Ray workers based on the autoscaler.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobBookmarkEntry

Defines a point that a job can resume processing.

## Contents

### Attempt

The attempt ID number.

Type: Integer

Required: No

### JobBookmark

The bookmark itself.

Type: String

Required: No

### JobName

The name of the job in question.

Type: String

Required: No

### PreviousRunId

The unique run identifier associated with the previous job run.

Type: String

Required: No

### Run

The run ID number.

Type: Integer

Required: No



## RunId

The run ID number.

Type: String

Required: No

## Version

The version of the job.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobBookmarksEncryption

Specifies how job bookmark data should be encrypted.

## Contents

### JobBookmarksEncryptionMode

The encryption mode to use for job bookmarks data.

Type: String

Valid Values: DISABLED | CSE-KMS

Required: No

### KmsKeyArn

The Amazon Resource Name (ARN) of the KMS key to be used to encrypt the data.

Type: String

Pattern: arn:aws:kms:.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobCommand

Specifies code that runs when a job is run.

## Contents

### Name

The name of the job command. For an Apache Spark ETL job, this must be `glueetl`. For a Python shell job, it must be `pythonshell`. For an Apache Spark streaming ETL job, this must be `gluestreaming`. For a Ray job, this must be `glueray`.

Type: String

Required: No

### PythonVersion

The Python version being used to run a Python shell job. Allowed values are 2 or 3.

Type: String

Pattern: `^([2-3]|3[.]9)$`

Required: No

### Runtime

In Ray jobs, Runtime is used to specify the versions of Ray, Python and additional libraries available in your environment. This field is not used in other job types. For supported runtime environment values, see [Supported Ray runtime environments](#) in the AWS Glue Developer Guide.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `.*`

Required: No

### ScriptLocation

Specifies the Amazon Simple Storage Service (Amazon S3) path to a script that runs a job.

Type: String

Length Constraints: Maximum length of 400000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobNodeDetails

The details of a Job node present in the workflow.

## Contents

### JobRuns

The information for the job runs represented by the job node.

Type: Array of [JobRun](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobRun

Contains information about a job run.

## Contents

### AllocatedCapacity

This field is deprecated. Use `MaxCapacity` instead.

The number of AWS Glue data processing units (DPUs) allocated to this JobRun. From 2 to 100 DPUs can be allocated; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

Type: Integer

Required: No

### Arguments

The job arguments associated with this run. For this job run, they replace the default arguments set in the job definition itself.

You can specify arguments here that your own job-execution script consumes, as well as arguments that AWS Glue itself consumes.

Job arguments may be logged. Do not pass plaintext secrets as arguments. Retrieve secrets from a AWS Glue Connection, AWS Secrets Manager or other secret management mechanism if you intend to keep them within the Job.

For information about how to specify and consume your own Job arguments, see the [Calling AWS Glue APIs in Python](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Spark jobs, see the [Special Parameters Used by AWS Glue](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Ray jobs, see [Using job parameters in Ray jobs](#) in the developer guide.

Type: String to string map

Required: No

### **Attempt**

The number of the attempt to run this job.

Type: Integer

Required: No

### **CompletedOn**

The date and time that this job run completed.

Type: Timestamp

Required: No

### **DPUSecods**

This field can be set for either job runs with execution class FLEX or when Auto Scaling is enabled, and represents the total time each executor ran during the lifecycle of a job run in seconds, multiplied by a DPU factor (1 for G.1X, 2 for G.2X, or 0.25 for G.025X workers). This value may be different than the `executionEngineRuntime * MaxCapacity` as in the case of Auto Scaling jobs, as the number of executors running at a given time may be less than the `MaxCapacity`. Therefore, it is possible that the value of `DPUSecods` is less than `executionEngineRuntime * MaxCapacity`.

Type: Double

Required: No

### **ErrorMessage**

An error message associated with this job run.

Type: String

Required: No

### **ExecutionClass**

Indicates whether the job is run with a standard or flexible execution class. The standard execution-class is ideal for time-sensitive workloads that require fast job startup and dedicated resources.

The flexible execution class is appropriate for time-insensitive jobs whose start and completion times may vary.

Only jobs with AWS Glue version 3.0 and above and command type `glueetl` will be allowed to set `ExecutionClass` to `FLEX`. The flexible execution class is available for Spark jobs.

Type: String

Length Constraints: Maximum length of 16.

Valid Values: `FLEX` | `STANDARD`

Required: No

### **ExecutionTime**

The amount of time (in seconds) that the job run consumed resources.

Type: Integer

Required: No

### **GlueVersion**

In Spark jobs, `GlueVersion` determines the versions of Apache Spark and Python that AWS Glue available in a job. The Python version indicates the version supported for jobs of type Spark.

Ray jobs should set `GlueVersion` to `4.0` or greater. However, the versions of Ray, Python and additional libraries available in your Ray job are determined by the `Runtime` parameter of the Job command.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Jobs that are created without specifying a Glue version default to Glue 0.9.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`



Required: No

## Id

The ID of this job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## JobName

The name of the job definition being used in this run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## JobRunState

The current state of the job run. For more information about the statuses of jobs that have terminated abnormally, see [AWS Glue Job Run Statuses](#).

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT | ERROR | WAITING

Required: No

## LastModifiedOn

The last time that this job run was modified.

Type: Timestamp

Required: No

## LogGroupName

The name of the log group for secure logging that can be server-side encrypted in Amazon CloudWatch using AWS KMS. This name can be `/aws-glue/jobs/`, in which case the default encryption is `NONE`. If you add a role name and SecurityConfiguration name (in other words, `/aws-glue/jobs-yourRoleName-yourSecurityConfigurationName/`), then that security configuration is used to encrypt the log group.

Type: String

Required: No

## MaxCapacity

For Glue version 1.0 or earlier jobs, using the standard worker type, the number of AWS Glue data processing units (DPUs) that can be allocated when this job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

For Glue version 2.0+ jobs, you cannot specify a `MaximumCapacity`. Instead, you should specify a `WorkerType` and the `NumberOfWorkers`.

Do not set `MaxCapacity` if using `WorkerType` and `NumberOfWorkers`.

The value that can be allocated for `MaxCapacity` depends on whether you are running a Python shell job, an Apache Spark ETL job, or an Apache Spark streaming ETL job:

- When you specify a Python shell job (`JobCommand.Name="pythonshell"`), you can allocate either 0.0625 or 1 DPU. The default is 0.0625 DPU.
- When you specify an Apache Spark ETL job (`JobCommand.Name="glueetl"`) or Apache Spark streaming ETL job (`JobCommand.Name="gluestreaming"`), you can allocate from 2 to 100 DPUs. The default is 10 DPUs. This job type cannot have a fractional DPU allocation.

Type: Double

Required: No

## NotificationProperty

Specifies configuration properties of a job run notification.

Type: [NotificationProperty](#) object

Required: No

### **NumberOfWorkers**

The number of workers of a defined `workerType` that are allocated when a job runs.

Type: Integer

Required: No

### **PredecessorRuns**

A list of predecessors to this job run.

Type: Array of [Predecessor](#) objects

Required: No

### **PreviousRunId**

The ID of the previous run of this job. For example, the `JobRunId` specified in the `StartJobRun` action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **SecurityConfiguration**

The name of the `SecurityConfiguration` structure to be used with this job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **StartedOn**

The date and time at which this job run was started.

Type: Timestamp

Required: No

### Timeout

The JobRun timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters TIMEOUT status. This value overrides the timeout value set in the parent job.

Streaming jobs do not have a timeout. The default for non-streaming jobs is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### TriggerName

The name of the trigger that started this job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### WorkerType

The type of predefined worker that is allocated when a job runs. Accepts a value of G.1X, G.2X, G.4X, G.8X or G.025X for Spark jobs. Accepts the value Z.2X for Ray jobs.

- For the G.1X worker type, each worker maps to 1 DPU (4 vCPUs, 16 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G.2X worker type, each worker maps to 2 DPU (8 vCPUs, 32 GB of memory) with 128GB disk (approximately 77GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.

- For the G.4X worker type, each worker maps to 4 DPU (16 vCPUs, 64 GB of memory) with 256GB disk (approximately 235GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs in the following AWS Regions: US East (Ohio), US East (N. Virginia), US West (Oregon), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), Canada (Central), Europe (Frankfurt), Europe (Ireland), and Europe (Stockholm).
- For the G.8X worker type, each worker maps to 8 DPU (32 vCPUs, 128 GB of memory) with 512GB disk (approximately 487GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs, in the same AWS Regions as supported for the G.4X worker type.
- For the G.025X worker type, each worker maps to 0.25 DPU (2 vCPUs, 4 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for low volume streaming jobs. This worker type is only available for AWS Glue version 3.0 streaming jobs.
- For the Z.2X worker type, each worker maps to 2 M-DPU (8vCPUs, 64 GB of memory) with 128 GB disk (approximately 120GB free), and provides up to 8 Ray workers based on the autoscaler.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobUpdate

Specifies information used to update an existing job definition. The previous job definition is completely overwritten by this information.

## Contents

### AllocatedCapacity

This field is deprecated. Use `MaxCapacity` instead.

The number of AWS Glue data processing units (DPUs) to allocate to this job. You can allocate a minimum of 2 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

Type: Integer

Required: No

### CodeGenConfigurationNodes

The representation of a directed acyclic graph on which both the Glue Studio visual component and Glue Studio code generation is based.

Type: String to [CodeGenConfigurationNode](#) object map

Key Pattern: `[A-Za-z0-9_-]*`

Required: No

### Command

The `JobCommand` that runs this job (required).

Type: [JobCommand](#) object

Required: No

### Connections

The connections used for this job.

Type: [ConnectionsList](#) object

Required: No

## DefaultArguments

The default arguments for every run of this job, specified as name-value pairs.

You can specify arguments here that your own job-execution script consumes, as well as arguments that AWS Glue itself consumes.

Job arguments may be logged. Do not pass plaintext secrets as arguments. Retrieve secrets from a AWS Glue Connection, AWS Secrets Manager or other secret management mechanism if you intend to keep them within the Job.

For information about how to specify and consume your own Job arguments, see the [Calling AWS Glue APIs in Python](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Spark jobs, see the [Special Parameters Used by AWS Glue](#) topic in the developer guide.

For information about the arguments you can provide to this field when configuring Ray jobs, see [Using job parameters in Ray jobs](#) in the developer guide.

Type: String to string map

Required: No

## Description

Description of the job being defined.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## ExecutionClass

Indicates whether the job is run with a standard or flexible execution class. The standard execution-class is ideal for time-sensitive workloads that require fast job startup and dedicated resources.

The flexible execution class is appropriate for time-insensitive jobs whose start and completion times may vary.

Only jobs with AWS Glue version 3.0 and above and command type `glueetl` will be allowed to set `ExecutionClass` to FLEX. The flexible execution class is available for Spark jobs.

Type: String

Length Constraints: Maximum length of 16.

Valid Values: FLEX | STANDARD

Required: No

### ExecutionProperty

An `ExecutionProperty` specifying the maximum number of concurrent runs allowed for this job.

Type: [ExecutionProperty](#) object

Required: No

### GlueVersion

In Spark jobs, `GlueVersion` determines the versions of Apache Spark and Python that AWS Glue available in a job. The Python version indicates the version supported for jobs of type Spark.

Ray jobs should set `GlueVersion` to `4.0` or greater. However, the versions of Ray, Python and additional libraries available in your Ray job are determined by the `Runtime` parameter of the Job command.

For more information about the available AWS Glue versions and corresponding Spark and Python versions, see [Glue version](#) in the developer guide.

Jobs that are created without specifying a Glue version default to Glue 0.9.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No



## LogUri

This field is reserved for future use.

Type: String

Required: No

## MaxCapacity

For Glue version 1.0 or earlier jobs, using the standard worker type, the number of AWS Glue data processing units (DPUs) that can be allocated when this job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

For Glue version 2.0+ jobs, you cannot specify a `MaximumCapacity`. Instead, you should specify a `WorkerType` and the `NumberOfWorkers`.

Do not set `MaxCapacity` if using `WorkerType` and `NumberOfWorkers`.

The value that can be allocated for `MaxCapacity` depends on whether you are running a Python shell job, an Apache Spark ETL job, or an Apache Spark streaming ETL job:

- When you specify a Python shell job (`JobCommand.Name="pythonshell"`), you can allocate either 0.0625 or 1 DPU. The default is 0.0625 DPU.
- When you specify an Apache Spark ETL job (`JobCommand.Name="glueetl"`) or Apache Spark streaming ETL job (`JobCommand.Name="gluestreaming"`), you can allocate from 2 to 100 DPUs. The default is 10 DPUs. This job type cannot have a fractional DPU allocation.

Type: Double

Required: No

## MaxRetries

The maximum number of times to retry this job if it fails.

Type: Integer

Required: No

## NonOverridableArguments

Arguments for this job that are not overridden when providing job arguments in a job run, specified as name-value pairs.

Type: String to string map

Required: No

### **NotificationProperty**

Specifies the configuration properties of a job notification.

Type: [NotificationProperty](#) object

Required: No

### **NumberOfWorkers**

The number of workers of a defined `workerType` that are allocated when a job runs.

Type: Integer

Required: No

### **Role**

The name or Amazon Resource Name (ARN) of the IAM role associated with this job (required).

Type: String

Required: No

### **SecurityConfiguration**

The name of the `SecurityConfiguration` structure to be used with this job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **SourceControlDetails**

The details for a source control configuration for a job, allowing synchronization of job artifacts to or from a remote repository.

Type: [SourceControlDetails](#) object

Required: No

## Timeout

The job timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters TIMEOUT status. The default is 2,880 minutes (48 hours).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## WorkerType

The type of predefined worker that is allocated when a job runs. Accepts a value of G.1X, G.2X, G.4X, G.8X or G.025X for Spark jobs. Accepts the value Z.2X for Ray jobs.

- For the G . 1X worker type, each worker maps to 1 DPU (4 vCPUs, 16 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G . 2X worker type, each worker maps to 2 DPU (8 vCPUs, 32 GB of memory) with 128GB disk (approximately 77GB free), and provides 1 executor per worker. We recommend this worker type for workloads such as data transforms, joins, and queries, to offers a scalable and cost effective way to run most jobs.
- For the G . 4X worker type, each worker maps to 4 DPU (16 vCPUs, 64 GB of memory) with 256GB disk (approximately 235GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs in the following AWS Regions: US East (Ohio), US East (N. Virginia), US West (Oregon), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), Canada (Central), Europe (Frankfurt), Europe (Ireland), and Europe (Stockholm).
- For the G . 8X worker type, each worker maps to 8 DPU (32 vCPUs, 128 GB of memory) with 512GB disk (approximately 487GB free), and provides 1 executor per worker. We recommend this worker type for jobs whose workloads contain your most demanding transforms, aggregations, joins, and queries. This worker type is available only for AWS Glue version 3.0 or later Spark ETL jobs, in the same AWS Regions as supported for the G . 4X worker type.
- For the G . 025X worker type, each worker maps to 0.25 DPU (2 vCPUs, 4 GB of memory) with 84GB disk (approximately 34GB free), and provides 1 executor per worker. We recommend

this worker type for low volume streaming jobs. This worker type is only available for AWS Glue version 3.0 streaming jobs.

- For the Z.2X worker type, each worker maps to 2 M-DPU (8vCPUs, 64 GB of memory) with 128 GB disk (approximately 120GB free), and provides up to 8 Ray workers based on the autoscaler.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Join

Specifies a transform that joins two datasets into one dataset using a comparison phrase on the specified data property keys. You can use inner, outer, left, right, left semi, and left anti joins.

## Contents

### Columns

A list of the two columns to be joined.

Type: Array of [JoinColumn](#) objects

Array Members: Fixed number of 2 items.

Required: Yes

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 2 items.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### JoinType

Specifies the type of join to be performed on the datasets.

Type: String

Valid Values: `equijoin | left | right | outer | leftsemi | leftanti`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]| [^\\r\\n]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JoinColumn

Specifies a column to be joined.

## Contents

### From

The column to be joined.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'])*`)

Required: Yes

### Keys

The key of the column to be joined.

Type: Array of arrays of strings

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'])*`)

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JsonClassifier

A classifier for JSON content.

## Contents

### JsonPath

A JsonPath string defining the JSON data for the classifier to classify. AWS Glue supports a subset of JsonPath, as described in [Writing JsonPath Custom Classifiers](#).

Type: String

Required: Yes

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CreationTime

The time that this classifier was registered.

Type: Timestamp

Required: No

### LastUpdated

The time that this classifier was last updated.

Type: Timestamp

Required: No

### Version

The version of this classifier.



Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KafkaStreamingSourceOptions

Additional options for streaming.

## Contents

### AddRecordTimestamp

When this option is set to 'true', the data output will contain an additional column named "\_\_src\_timestamp" that indicates the time when the corresponding record received by the topic. The default value is 'false'. This option is supported in AWS Glue version 4.0 or later.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### Assign

The specific TopicPartitions to consume. You must specify at least one of "topicName", "assign" or "subscribePattern".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### BootstrapServers

A list of bootstrap server URLs, for example, as `b-1.vpc-test-2.o4q88o.c6.kafka.us-east-1.amazonaws.com:9094`. This option must be specified in the API call or defined in the table metadata in the Data Catalog.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## Classification

An optional classification.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## ConnectionName

The name of the connection.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## Delimiter

Specifies the delimiter character.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## EmitConsumerLagMetrics

When this option is set to 'true', for each batch, it will emit the metrics for the duration between the oldest record received by the topic and the time it arrives in AWS Glue to CloudWatch. The metric's name is "glue.driver.streaming.maxConsumerLagInMs". The default value is 'false'. This option is supported in AWS Glue version 4.0 or later.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### EndingOffsets

The end point when a batch query is ended. Possible values are either "latest" or a JSON string that specifies an ending offset for each TopicPartition.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

### IncludeHeaders

Whether to include the Kafka headers. When the option is set to "true", the data output will contain an additional column named "glue\_streaming\_kafka\_headers" with type `Array[Struct(key: String, value: String)]`. The default value is "false". This option is available in AWS Glue version 3.0 or later only.

Type: Boolean

Required: No

### MaxOffsetsPerTrigger

The rate limit on the maximum number of offsets that are processed per trigger interval. The specified total number of offsets is proportionally split across topicPartitions of different volumes. The default value is null, which means that the consumer reads all offsets until the known latest offset.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### MinPartitions

The desired minimum number of partitions to read from Kafka. The default value is null, which means that the number of spark partitions is equal to the number of Kafka partitions.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **NumRetries**

The number of times to retry before failing to fetch Kafka offsets. The default value is 3.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **PollTimeoutMs**

The timeout in milliseconds to poll data from Kafka in Spark job executors. The default value is 512.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **RetryIntervalMs**

The time in milliseconds to wait before retrying to fetch Kafka offsets. The default value is 10.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **SecurityProtocol**

The protocol used to communicate with brokers. The possible values are "SSL" or "PLAINTEXT".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## StartingOffsets

The starting position in the Kafka topic to read data from. The possible values are "earliest" or "latest". The default value is "latest".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## StartingTimestamp

The timestamp of the record in the Kafka topic to start reading data from. The possible values are a timestamp string in UTC format of the pattern `yyyy-mm-ddTHH:MM:SSZ` (where Z represents a UTC timezone offset with a +/-). For example: "2023-04-04T08:00:00+08:00".

Only one of StartingTimestamp or StartingOffsets must be set.

Type: Timestamp

Required: No

## SubscribePattern

A Java regex string that identifies the topic list to subscribe to. You must specify at least one of "topicName", "assign" or "subscribePattern".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## TopicName

The topic name as specified in Apache Kafka. You must specify at least one of "topicName", "assign" or "subscribePattern".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KeySchemaElement

A partition key pair consisting of a name and a type.

## Contents

### Name

The name of a partition key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Type

The type of a partition key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131072.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# KinesisStreamingSourceOptions

Additional options for the Amazon Kinesis streaming data source.

## Contents

### AddIdleTimeBetweenReads

Adds a time delay between two consecutive `getRecords` operations. The default value is `"False"`. This option is only configurable for Glue version 2.0 and above.

Type: Boolean

Required: No

### AddRecordTimestamp

When this option is set to `'true'`, the data output will contain an additional column named `"__src_timestamp"` that indicates the time when the corresponding record received by the stream. The default value is `'false'`. This option is supported in AWS Glue version 4.0 or later.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### AvoidEmptyBatches

Avoids creating an empty microbatch job by checking for unread data in the Kinesis data stream before the batch is started. The default value is `"False"`.

Type: Boolean

Required: No

### Classification

An optional classification.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### **Delimiter**

Specifies the delimiter character.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### **DescribeShardInterval**

The minimum time interval between two ListShards API calls for your script to consider resharding. The default value is 1s.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **EmitConsumerLagMetrics**

When this option is set to 'true', for each batch, it will emit the metrics for the duration between the oldest record received by the stream and the time it arrives in AWS Glue to CloudWatch. The metric's name is "glue.driver.streaming.maxConsumerLagInMs". The default value is 'false'. This option is supported in AWS Glue version 4.0 or later.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### **EndpointUrl**

The URL of the Kinesis endpoint.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### **IdleTimeBetweenReadsInMs**

The minimum time delay between two consecutive `getRecords` operations, specified in ms. The default value is `1000`. This option is only configurable for Glue version 2.0 and above.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **MaxFetchRecordsPerShard**

The maximum number of records to fetch per shard in the Kinesis data stream per microbatch. Note: The client can exceed this limit if the streaming job has already read extra records from Kinesis (in the same `get-records` call). If `MaxFetchRecordsPerShard` needs to be strict then it needs to be a multiple of `MaxRecordPerRead`. The default value is `100000`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **MaxFetchTimeInMs**

The maximum time spent for the job executor to read records for the current batch from the Kinesis data stream, specified in milliseconds (ms). Multiple `GetRecords` API calls may be made within this time. The default value is `1000`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **MaxRecordPerRead**

The maximum number of records to fetch from the Kinesis data stream in each `getRecords` operation. The default value is `10000`.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **MaxRetryIntervalMs**

The maximum cool-off time period (specified in ms) between two retries of a Kinesis Data Streams API call. The default value is 10000.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **NumRetries**

The maximum number of retries for Kinesis Data Streams API requests. The default value is 3.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **RetryIntervalMs**

The cool-off time period (specified in ms) before retrying the Kinesis Data Streams API call. The default value is 1000.

Type: Long

Valid Range: Minimum value of 0.

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) of the role to assume using AWS Security Token Service (AWS STS). This role must have permissions for describe or read record operations for the Kinesis data stream. You must use this parameter when accessing a data stream in a different account. Used in conjunction with "awsSTSSessionName".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### **RoleSessionName**

An identifier for the session assuming the role using AWS STS. You must use this parameter when accessing a data stream in a different account. Used in conjunction with "awsSTSRoleARN".

Type: String

Pattern: ([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'])\*

Required: No

### **StartingPosition**

The starting position in the Kinesis data stream to read data from. The possible values are "latest", "trim\_horizon", "earliest", or a timestamp string in UTC format in the pattern yyyy-mm-ddTHH:MM:SSZ (where Z represents a UTC timezone offset with a +/-). For example: "2023-04-04T08:00:00-04:00". The default value is "latest".

Note: Using a value that is a timestamp string in UTC format for "startingPosition" is supported only for AWS Glue version 4.0 or later.

Type: String

Valid Values: latest | trim\_horizon | earliest | timestamp

Required: No

### **StartingTimestamp**

The timestamp of the record in the Kinesis data stream to start reading data from. The possible values are a timestamp string in UTC format of the pattern yyyy-mm-ddTHH:MM:SSZ (where Z represents a UTC timezone offset with a +/-). For example: "2023-04-04T08:00:00+08:00".

Type: Timestamp

Required: No

### **StreamArn**

The Amazon Resource Name (ARN) of the Kinesis data stream.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])`)\*

Required: No

## StreamName

The name of the Kinesis data stream.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingSetGenerationTaskRunProperties

Specifies configuration properties for a labeling set generation task run.

## Contents

### OutputS3Path

The Amazon Simple Storage Service (Amazon S3) path where you will generate the labeling set.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LakeFormationConfiguration

Specifies AWS Lake Formation configuration settings for the crawler.

## Contents

### AccountId

Required for cross account crawls. For same account crawls as the target data, this can be left as null.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 12.

Required: No

### UseLakeFormationCredentials

Specifies whether to use AWS Lake Formation credentials for the crawler instead of the IAM role credentials.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LastActiveDefinition

When there are multiple versions of a blueprint and the latest version has some errors, this attribute indicates the last successful blueprint definition that is available with the service.

## Contents

### BlueprintLocation

Specifies a path in Amazon S3 where the blueprint is published by the AWS Glue developer.

Type: String

Required: No

### BlueprintServiceLocation

Specifies a path in Amazon S3 where the blueprint is copied when you create or update the blueprint.

Type: String

Required: No

### Description

The description of the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### LastModifiedOn

The date and time the blueprint was last modified.

Type: Timestamp

Required: No

### ParameterSpec

A JSON string specifying the parameters for the blueprint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131072.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LastCrawlInfo

Status and error information about the most recent crawl.

## Contents

### ErrorMessage

If an error occurred, the error information about the last crawl.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LogGroup

The log group for the last crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\.\-_\/#A-Za-z0-9]+`

Required: No

### LogStream

The log stream for the last crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `[\^:]*`

Required: No

### MessagePrefix

The prefix for a message about this crawl.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## StartTime

The time at which the crawl started.

Type: Timestamp

Required: No

## Status

Status of the last crawl.

Type: String

Valid Values: SUCCEEDED | CANCELLED | FAILED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LineageConfiguration

Specifies data lineage configuration settings for the crawler.

## Contents

### CrawlerLineageSettings

Specifies whether data lineage is enabled for the crawler. Valid values are:

- **ENABLE**: enables data lineage for the crawler
- **DISABLE**: disables data lineage for the crawler

Type: String

Valid Values: ENABLE | DISABLE

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Location

The location of resources.

## Contents

### DynamoDB

An Amazon DynamoDB table location.

Type: Array of [CodeGenNodeArg](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### Jdbc

A JDBC location.

Type: Array of [CodeGenNodeArg](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### S3

An Amazon Simple Storage Service (Amazon S3) location.

Type: Array of [CodeGenNodeArg](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# LongColumnStatisticsData

Defines column statistics supported for integer data columns.

## Contents

### NumberOfDistinctValues

The number of distinct values in a column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### MaximumValue

The highest value in the column.

Type: Long

Required: No

### MinimumValue

The lowest value in the column.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Mapping

Specifies the mapping of data property keys.

## Contents

### Children

Only applicable to nested data structures. If you want to change the parent structure, but also one of its children, you can fill out this data structure. It is also Mapping, but its FromPath will be the parent's FromPath plus the FromPath from this structure.

For the children part, suppose you have the structure:

```
{ "FromPath": "OuterStructure", "ToKey": "OuterStructure", "ToType":  
"Struct", "Dropped": false, "Children": [{ "FromPath": "inner", "ToKey":  
"inner", "ToType": "Double", "Dropped": false, }] }
```

You can specify a Mapping that looks like:

```
{ "FromPath": "OuterStructure", "ToKey": "OuterStructure", "ToType":  
"Struct", "Dropped": false, "Children": [{ "FromPath": "inner", "ToKey":  
"inner", "ToType": "Double", "Dropped": false, }] }
```

Type: Array of [Mapping](#) objects

Required: No

### Dropped

If true, then the column is removed.

Type: Boolean

Required: No

### FromPath

The table or column to be modified.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: No

### FromType

The type of the data to be modified.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### ToKey

After the apply mapping, what the name of the column should be. Can be the same as `FromPath`.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

### ToType

The data type that the data is to be modified to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# MappingEntry

Defines a mapping.

## Contents

### SourcePath

The source path.

Type: String

Required: No

### SourceTable

The name of the source table.

Type: String

Required: No

### SourceType

The source type.

Type: String

Required: No

### TargetPath

The target path.

Type: String

Required: No

### TargetTable

The target table.

Type: String

Required: No

## TargetType

The target type.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Merge

Specifies a transform that merges a `DynamicFrame` with a staging `DynamicFrame` based on the specified primary keys to identify records. Duplicate records (records with the same primary keys) are not de-duplicated.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 2 items.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### PrimaryKeys

The list of primary key fields to match records from the source and staging dynamic frames.

Type: Array of arrays of strings

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`

Required: Yes

### Source

The source `DynamicFrame` that will be merged with a staging `DynamicFrame`.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MetadataInfo

A structure containing metadata information for a schema version.

## Contents

### CreatedTime

The time at which the entry was created.

Type: String

Required: No

### MetadataValue

The metadata key's corresponding value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: [a-zA-Z0-9+-. \_./@]+

Required: No

### OtherMetadataValueList

Other metadata belonging to the same metadata key.

Type: Array of [OtherMetadataValueListItem](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MetadataKeyValuePair

A structure containing a key value pair for metadata.

## Contents

### MetadataKey

A metadata key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9+-. \_./@]+

Required: No

### MetadataValue

A metadata key's corresponding value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: [a-zA-Z0-9+-. \_./@]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetricBasedObservation

Describes the metric based observation generated based on evaluated data quality metrics.

## Contents

### MetricName

The name of the data quality metric used for generating the observation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### MetricValues

An object of type `DataQualityMetricValues` representing the analysis of the data quality metric value.

Type: [DataQualityMetricValues](#) object

Required: No

### NewRules

A list of new data quality rules generated as part of the observation based on the data quality metric value.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MicrosoftSQLServerCatalogSource

Specifies a Microsoft SQL server data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MicrosoftSQLServerCatalogTarget

Specifies a target that uses Microsoft SQL.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String



Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MLTransform

A structure for a machine learning transform.

## Contents

### CreatedOn

A timestamp. The time and date that this machine learning transform was created.

Type: Timestamp

Required: No

### Description

A user-defined, long-form description text for the machine learning transform. Descriptions are not guaranteed to be unique and can be changed at any time.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### EvaluationMetrics

An `EvaluationMetrics` object. Evaluation metrics provide an estimate of the quality of your machine learning transform.

Type: [EvaluationMetrics](#) object

Required: No

### GlueVersion

This value determines which version of AWS Glue this machine learning transform is compatible with. Glue 1.0 is recommended for most customers. If the value is not set, the Glue compatibility defaults to Glue 0.9. For more information, see [AWS Glue Versions](#) in the developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### **InputRecordTables**

A list of AWS Glue table definitions used by the transform.

Type: Array of [GlueTable](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

### **LabelCount**

A count identifier for the labeling files generated by AWS Glue for this transform. As you create a better transform, you can iteratively download, label, and upload the labeling file.

Type: Integer

Required: No

### **LastModifiedOn**

A timestamp. The last point in time when this machine learning transform was modified.

Type: Timestamp

Required: No

### **MaxCapacity**

The number of AWS Glue data processing units (DPUs) that are allocated to task runs for this transform. You can allocate from 2 to 100 DPUs; the default is 10. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB of memory. For more information, see the [AWS Glue pricing page](#).

`MaxCapacity` is a mutually exclusive option with `NumberOfWorkers` and `WorkerType`.

- If either `NumberOfWorkers` or `WorkerType` is set, then `MaxCapacity` cannot be set.
- If `MaxCapacity` is set then neither `NumberOfWorkers` or `WorkerType` can be set.
- If `WorkerType` is set, then `NumberOfWorkers` is required (and vice versa).
- `MaxCapacity` and `NumberOfWorkers` must both be at least 1.

When the `WorkerType` field is set to a value other than `Standard`, the `MaxCapacity` field is set automatically and becomes read-only.

Type: Double

Required: No

### MaxRetries

The maximum number of times to retry after an `MLTaskRun` of the machine learning transform fails.

Type: Integer

Required: No

### Name

A user-defined name for the machine learning transform. Names are not guaranteed unique and can be changed at any time.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### NumberOfWorkers

The number of workers of a defined `workerType` that are allocated when a task of the transform runs.

If `WorkerType` is set, then `NumberOfWorkers` is required (and vice versa).

Type: Integer

Required: No

### Parameters

A `TransformParameters` object. You can use parameters to tune (customize) the behavior of the machine learning transform by specifying what data it learns from and your preference on various tradeoffs (such as precision vs. recall, or accuracy vs. cost).

Type: [TransformParameters](#) object

Required: No

### Role

The name or Amazon Resource Name (ARN) of the IAM role with the required permissions. The required permissions include both AWS Glue service role permissions to AWS Glue resources, and Amazon S3 permissions required by the transform.

- This role needs AWS Glue service role permissions to allow access to resources in AWS Glue. See [Attach a Policy to IAM Users That Access AWS Glue](#).
- This role needs permission to your Amazon Simple Storage Service (Amazon S3) sources, targets, temporary directory, scripts, and any libraries used by the task run for this transform.

Type: String

Required: No

### Schema

A map of key-value pairs representing the columns and data types that this transform can run against. Has an upper bound of 100 columns.

Type: Array of [SchemaColumn](#) objects

Array Members: Maximum number of 100 items.

Required: No

### Status

The current status of the machine learning transform.

Type: String

Valid Values: NOT\_READY | READY | DELETING

Required: No

### Timeout

The timeout in minutes of the machine learning transform.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### TransformEncryption

The encryption-at-rest settings of the transform that apply to accessing user data. Machine learning transforms can access user data encrypted in Amazon S3 using KMS.

Type: [TransformEncryption](#) object

Required: No

### TransformId

The unique transform ID that is generated for the machine learning transform. The ID is guaranteed to be unique and does not change.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### WorkerType

The type of predefined worker that is allocated when a task of this transform runs. Accepts a value of Standard, G.1X, or G.2X.

- For the Standard worker type, each worker provides 4 vCPU, 16 GB of memory and a 50GB disk, and 2 executors per worker.
- For the G.1X worker type, each worker provides 4 vCPU, 16 GB of memory and a 64GB disk, and 1 executor per worker.
- For the G.2X worker type, each worker provides 8 vCPU, 32 GB of memory and a 128GB disk, and 1 executor per worker.

MaxCapacity is a mutually exclusive option with NumberOfWorkers and WorkerType.

- If either NumberOfWorkers or WorkerType is set, then MaxCapacity cannot be set.
- If MaxCapacity is set then neither NumberOfWorkers or WorkerType can be set.
- If WorkerType is set, then NumberOfWorkers is required (and vice versa).

- `MaxCapacity` and `NumberOfWorkers` must both be at least 1.

Type: String

Valid Values: Standard | G.1X | G.2X | G.025X | G.4X | G.8X | Z.2X

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MLUserDataEncryption

The encryption-at-rest settings of the transform that apply to accessing user data.

## Contents

### MLUserDataEncryptionMode

The encryption mode applied to user data. Valid values are:

- **DISABLED**: encryption is disabled
- **SSEKMS**: use of server-side encryption with AWS Key Management Service (SSE-KMS) for user data stored in Amazon S3.

Type: String

Valid Values: DISABLED | SSE-KMS

Required: Yes

### KmsKeyId

The ID for the customer-provided KMS key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MongoDBTarget

Specifies an Amazon DocumentDB or MongoDB data store to crawl.

## Contents

### ConnectionName

The name of the connection to use to connect to the Amazon DocumentDB or MongoDB target.

Type: String

Required: No

### Path

The path of the Amazon DocumentDB or MongoDB target (database/collection).

Type: String

Required: No

### ScanAll

Indicates whether to scan all the records, or to sample rows from the table. Scanning all the records can take a long time when the table is not a high throughput table.

A value of `true` means to scan all records, while a value of `false` means to sample the records. If no value is specified, the value defaults to `true`.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MySQLCatalogSource

Specifies a MySQL data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MySQLCatalogTarget

Specifies a target that uses MySQL.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Node

A node represents an AWS Glue component (trigger, crawler, or job) on a workflow graph.

## Contents

### CrawlerDetails

Details of the crawler when the node represents a crawler.

Type: [CrawlerNodeDetails](#) object

Required: No

### JobDetails

Details of the Job when the node represents a Job.

Type: [JobNodeDetails](#) object

Required: No

### Name

The name of the AWS Glue component represented by the node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### TriggerDetails

Details of the Trigger when the node represents a Trigger.

Type: [TriggerNodeDetails](#) object

Required: No

### Type

The type of AWS Glue component represented by the node.

Type: String

Valid Values: CRAWLER | JOB | TRIGGER

Required: No

## Uniqueld

The unique Id assigned to the node within the workflow.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# NotificationProperty

Specifies configuration properties of a notification.

## Contents

### NotifyDelayAfter

After a job run starts, the number of minutes to wait before sending a job run delay notification.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NullCheckBoxList

Represents whether certain values are recognized as null values for removal.

## Contents

### IsEmpty

Specifies that an empty string is considered as a null value.

Type: Boolean

Required: No

### IsNegOne

Specifies that an integer value of -1 is considered as a null value.

Type: Boolean

Required: No

### IsNullString

Specifies that a value spelling out the word 'null' is considered as a null value.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NullValueField

Represents a custom null value such as a zeros or other value being used as a null placeholder unique to the dataset.

## Contents

### Datatype

The datatype of the value.

Type: [Datatype](#) object

Required: Yes

### Value

The value of the null placeholder.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OpenTableFormatInput

A structure representing an open format table.

## Contents

### IcebergInput

Specifies an IcebergInput structure that defines an Apache Iceberg metadata table.

Type: [IcebergInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Option

Specifies an option value.

## Contents

### Description

Specifies the description of the option.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'])*`)

Required: No

### Label

Specifies the label of the option.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'])*`)

Required: No

### Value

Specifies the value of the option.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'])*`)

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OracleSQLCatalogSource

Specifies an Oracle data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# OracleSQLCatalogTarget

Specifies a target that uses Oracle SQL.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Order

Specifies the sort order of a sorted column.

## Contents

### Column

The name of the column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### SortOrder

Indicates that the column is sorted in ascending order (`= 1`), or in descending order (`= 0`).

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OtherMetadataValueListItem

A structure containing other metadata for a schema version belonging to the same metadata key.

## Contents

### CreatedTime

The time at which the entry was created.

Type: String

Required: No

### MetadataValue

The metadata key's corresponding value for the other metadata belonging to the same metadata key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: [a-zA-Z0-9+-. \_./@]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Partition

Represents a slice of table data.

## Contents

### CatalogId

The ID of the Data Catalog in which the partition resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CreationTime

The time at which the partition was created.

Type: Timestamp

Required: No

### DatabaseName

The name of the catalog database in which to create the partition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### LastAccessTime

The last time at which the partition was accessed.

Type: Timestamp

Required: No

## LastAnalyzedTime

The last time at which column statistics were computed for this partition.

Type: Timestamp

Required: No

## Parameters

These key-value pairs define partition parameters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

## StorageDescriptor

Provides information about the physical location where the partition is stored.

Type: [StorageDescriptor](#) object

Required: No

## TableName

The name of the database table in which to create the partition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Values

The values of the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PartitionError

Contains information about a partition error.

## Contents

### ErrorDetail

The details about the partition error.

Type: [ErrorDetail](#) object

Required: No

### PartitionValues

The values that define the partition.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# PartitionIndex

A structure for a partition index.

## Contents

### IndexName

The name of the partition index.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Keys

The keys for the partition index.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



Required: Yes

## BackfillErrors

A list of errors that can occur when registering partition indexes for an existing table.

Type: Array of [BackfillError](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PartitionInput

The structure used to create and update a partition.

## Contents

### LastAccessTime

The last time at which the partition was accessed.

Type: Timestamp

Required: No

### LastAnalyzedTime

The last time at which column statistics were computed for this partition.

Type: Timestamp

Required: No

### Parameters

These key-value pairs define partition parameters.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

### StorageDescriptor

Provides information about the physical location where the partition is stored.

Type: [StorageDescriptor](#) object

Required: No

## Values

The values of the partition. Although this parameter is not required by the SDK, you must specify this parameter for a valid input.

The values for the keys for the new partition must be passed as an array of String objects that must be ordered in the same order as the partition keys appearing in the Amazon S3 prefix. Otherwise AWS Glue will add the values to the wrong keys.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PartitionValueList

Contains a list of values defining partitions.

## Contents

### Values

The list of values.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PhysicalConnectionRequirements

Specifies the physical requirements for a connection.

## Contents

### AvailabilityZone

The connection's Availability Zone. This field is redundant because the specified subnet implies the Availability Zone to be used. Currently the field must be populated, but it will be deprecated in the future.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### SecurityGroupIdList

The security group ID list used by the connection.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### SubnetId

The subnet ID used by the connection.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# PIIDetection

Specifies a transform that identifies, removes or masks PII data.

## Contents

### EntityTypesToDetect

Indicates the types of entities the PIIDetection transform will identify as PII data.

PII type entities include: PERSON\_NAME, DATE, USA\_SNN, EMAIL, USA\_ITIN, USA\_PASSPORT\_NUMBER, PHONE\_NUMBER, BANK\_ACCOUNT, IP\_ADDRESS, MAC\_ADDRESS, USA\_CPT\_CODE, USA\_HCPCS\_CODE, USA\_NATIONAL\_DRUG\_CODE, USA\_MEDICARE\_BENEFICIARY\_IDENTIFIER, USA\_HEALTH\_INSURANCE\_CLAIM\_NUMBER, CREDIT\_CARD, USA\_NATIONAL\_PROVIDER\_IDENTIFIER, USA

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The node ID inputs to the transform.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

## PiiType

Indicates the type of PII Detection transform.

Type: String

Valid Values: RowAudit | RowMasking | ColumnAudit | ColumnMasking

Required: Yes

## MaskValue

Indicates the value that will replace the detected entity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: [\*A-Za-z0-9\_-]\*

Required: No

## OutputColumnName

Indicates the output column name that will contain any entity type detected in that row.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])\*

Required: No

## SampleFraction

Indicates the fraction of the data to sample when scanning for PII entities.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

## ThresholdFraction

Indicates the fraction of the data that must be met in order for a column to be identified as PII data.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PostgreSQLCatalogSource

Specifies a PostgreSQL data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PostgreSQLCatalogTarget

Specifies a target that uses Postgres SQL.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Predecessor

A job run that was used in the predicate of a conditional trigger that triggered this job run.

## Contents

### JobName

The name of the job definition used by the predecessor job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### RunId

The job-run ID of the predecessor job run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Predicate

Defines the predicate of the trigger, which determines when it fires.

## Contents

### Conditions

A list of the conditions that determine when the trigger will fire.

Type: Array of [Condition](#) objects

Required: No

### Logical

An optional field if only one condition is listed. If multiple conditions are listed, then this field is required.

Type: String

Valid Values: AND | ANY

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PrincipalPermissions

Permissions granted to a principal.

## Contents

### Permissions

The permissions that are granted to the principal.

Type: Array of strings

Valid Values: ALL | SELECT | ALTER | DROP | DELETE | INSERT |  
CREATE\_DATABASE | CREATE\_TABLE | DATA\_LOCATION\_ACCESS

Required: No

### Principal

The principal who is granted permissions.

Type: [DataLakePrincipal](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyPredicate

Defines a property predicate.

## Contents

### Comparator

The comparator used to compare this property to others.

Type: String

Valid Values: EQUALS | GREATER\_THAN | LESS\_THAN | GREATER\_THAN\_EQUALS | LESS\_THAN\_EQUALS

Required: No

### Key

The key of the property.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Value

The value of the property.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# QuerySessionContext

A structure used as a protocol between query engines and Lake Formation or AWS Glue. Contains both a Lake Formation generated authorization identifier and information from the request's authorization context.

## Contents

### AdditionalContext

An opaque string-string map passed by the query engine.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

### ClusterId

An identifier string for the consumer cluster.

Type: String

Required: No

### QueryAuthorizationId

A cryptographically generated query identifier generated by AWS Glue or Lake Formation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### QueryId

A unique identifier generated by the query engine for the query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **QueryStartTime**

A timestamp provided by the query engine for when the query started.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Recipe

A AWS Glue Studio node that uses a AWS Glue DataBrew recipe in AWS Glue jobs.

## Contents

### Inputs

The nodes that are inputs to the recipe node, identified by id.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the AWS Glue Studio node.

Type: String

Pattern: `([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### RecipeReference

A reference to the DataBrew recipe used by the node.

Type: [RecipeReference](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)



# RecipeReference

A reference to a AWS Glue DataBrew recipe.

## Contents

### RecipeArn

The ARN of the DataBrew recipe.

Type: String

Pattern: (`[ \u0020-\u007F\u00E0\u0000-\u00FF\u00D8\u0000-\u00DB\u00FF\u00DF\u00FF] | [^\S\r\n"' ]`)\*

Required: Yes

### RecipeVersion

The RecipeVersion of the DataBrew recipe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecrawlPolicy

When crawling an Amazon S3 data source after the first crawl is complete, specifies whether to crawl the entire dataset again or to crawl only folders that were added since the last crawler run. For more information, see [Incremental Crawls in AWS Glue](#) in the developer guide.

## Contents

### RecrawlBehavior

Specifies whether to crawl the entire dataset again or to crawl only folders that were added since the last crawler run.

A value of `CRAWL_EVERYTHING` specifies crawling the entire dataset again.

A value of `CRAWL_NEW_FOLDERS_ONLY` specifies crawling only folders that were added since the last crawler run.

A value of `CRAWL_EVENT_MODE` specifies crawling only the changes identified by Amazon S3 events.

Type: String

Valid Values: `CRAWL_EVERYTHING` | `CRAWL_NEW_FOLDERS_ONLY` | `CRAWL_EVENT_MODE`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RedshiftSource

Specifies an Amazon Redshift data store.

## Contents

### Database

The database to read from.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Name

The name of the Amazon Redshift data store.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])*`)

Required: Yes

### Table

The database table to read from.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### RedshiftTmpDir

The Amazon S3 path where temporary data can be staged when copying out of the database.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: No

### **TmpDirIAMRole**

The IAM role with permissions.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RedshiftTarget

Specifies a target that uses Amazon Redshift.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### RedshiftTmpDir

The Amazon S3 path where temporary data can be staged when copying out of the database.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

### TmpDirIAMRole

The IAM role with permissions.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

### UpsertRedshiftOptions

The set of options to configure an upsert operation when writing to a Redshift target.

Type: [UpsertRedshiftTargetOptions](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# RegistryId

A wrapper structure that may contain the registry name and Amazon Resource Name (ARN).

## Contents

### RegistryArn

Arn of the registry to be updated. One of RegistryArn or RegistryName has to be provided.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

### RegistryName

Name of the registry. Used only for lookup. One of RegistryArn or RegistryName has to be provided.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# RegistryListItem

A structure containing the details for a registry.

## Contents

### CreatedTime

The data the registry was created.

Type: String

Required: No

### Description

A description of the registry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### RegistryArn

The Amazon Resource Name (ARN) of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

### RegistryName

The name of the registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [a-zA-Z0-9-\_\$#. ]+

Required: No

### Status

The status of the registry.

Type: String

Valid Values: AVAILABLE | DELETING

Required: No

### UpdateTime

The date the registry was updated.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RelationalCatalogSource

Specifies a Relational database data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RenameField

Specifies a transform that renames a single data property key.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])*`

Required: Yes

### SourcePath

A JSON path to a variable in the data structure for the source data.

Type: Array of strings

Pattern: `([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`

Required: Yes

### TargetPath

A JSON path to a variable in the data structure for the target data.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResourceUri

The URIs for function resources.

## Contents

### ResourceType

The type of the resource.

Type: String

Valid Values: JAR | FILE | ARCHIVE

Required: No

### Uri

The URI for accessing the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RunMetrics

Metrics for the optimizer run.

## Contents

### JobDurationInHour

The duration of the job in hours.

Type: String

Required: No

### NumberOfBytesCompacted

The number of bytes removed by the compaction job run.

Type: String

Required: No

### NumberOfDpus

The number of DPU hours consumed by the job.

Type: String

Required: No

### NumberOfFilesCompacted

The number of files removed by the compaction job run.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3CatalogDeltaSource

Specifies a Delta Lake data source that is registered in the AWS Glue Data Catalog. The data source must be stored in Amazon S3.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Name

The name of the Delta Lake data source.

Type: String

Pattern: (`([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])*`)

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### AdditionalDeltaOptions

Specifies additional connection options.

Type: String to string map

Key Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)

Value Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)

Required: No

## OutputSchemas

Specifies the data schema for the Delta Lake source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3CatalogHudiSource

Specifies a Hudi data source that is registered in the AWS Glue Data Catalog. The Hudi data source must be stored in Amazon S3.

## Contents

### Database

The name of the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | (`^\\S\\r\\n''`))\*

Required: Yes

### Name

The name of the Hudi data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | (`^\\r\\n`))\*

Required: Yes

### Table

The name of the table in the database to read from.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | (`^\\S\\r\\n''`))\*

Required: Yes

### AdditionalHudiOptions

Specifies additional connection options.

Type: String to string map

Key Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Value Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: No

## OutputSchemas

Specifies the data schema for the Hudi source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3CatalogSource

Specifies an Amazon S3 data store in the AWS Glue Data Catalog.

## Contents

### Database

The database to read from.

Type: String

Pattern: (`([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### Name

The name of the data store.

Type: String

Pattern: (`([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])*`)

Required: Yes

### Table

The database table to read from.

Type: String

Pattern: (`([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: Yes

### AdditionalOptions

Specifies additional connection options.

Type: [S3SourceAdditionalOptions](#) object

Required: No

## PartitionPredicate

Partitions satisfying this predicate are deleted. Files within the retention period in these partitions are not deleted. Set to "" – empty by default.

Type: String

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]` | `[\S\r\n"' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3CatalogTarget

Specifies a data target that writes to Amazon S3 using the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String



Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: Yes

### PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: No

### SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [CatalogSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3CsvSource

Specifies a command-separated value (CSV) data store stored in Amazon S3.

## Contents

### Name

The name of the data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Paths

A list of the Amazon S3 paths to read from.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### QuoteChar

Specifies the character to use for quoting. The default is a double quote: `'"`. Set this to `-1` to turn off quoting entirely.

Type: String

Valid Values: `quote` | `quilletmet` | `single_quote` | `disabled`

Required: Yes

### Separator

Specifies the delimiter character. The default is a comma: `","`, but any other character can be specified.

Type: String

Valid Values: comma | ctrl-a | pipe | semicolon | tab

Required: Yes

### AdditionalOptions

Specifies additional connection options.

Type: [S3DirectSourceAdditionalOptions](#) object

Required: No

### CompressionType

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Valid Values: gzip | bzip2

Required: No

### Escaper

Specifies a character to use for escaping. This option is used only when reading CSV files. The default value is none. If enabled, the character which immediately follows is used as-is, except for a small set of well-known escapes (`\n`, `\r`, `\t`, and `\0`).

Type: String

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]` | `[\^S\r\n]`)\*

Required: No

### Exclusions

A string containing a JSON list of Unix-style glob patterns to exclude. For example, `"["**.*pdf"]"` excludes all PDF files.

Type: Array of strings

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]` | `[\^S\r\n"' ]`)\*

Required: No

## GroupFiles

Grouping files is turned on by default when the input contains more than 50,000 files. To turn on grouping with fewer than 50,000 files, set this parameter to "inPartition". To disable grouping when there are more than 50,000 files, set this parameter to "none".

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^S\r\n"' ])\*

Required: No

## GroupSize

The target group size in bytes. The default is computed based on the input data size and the size of your cluster. When there are fewer than 50,000 input files, "groupFiles" must be set to "inPartition" for this to take effect.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^S\r\n"' ])\*

Required: No

## MaxBand

This option controls the duration in milliseconds after which the s3 listing is likely to be consistent. Files with modification timestamps falling within the last maxBand milliseconds are tracked specially when using JobBookmarks to account for Amazon S3 eventual consistency. Most users don't need to set this option. The default is 900000 milliseconds, or 15 minutes.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## MaxFilesInBand

This option specifies the maximum number of files to save from the last maxBand seconds. If this number is exceeded, extra files are skipped and only processed in the next job run.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Multiline**

A Boolean value that specifies whether a single record can span multiple lines. This can occur when a field contains a quoted new-line character. You must set this option to True if any record spans multiple lines. The default value is `False`, which allows for more aggressive file-splitting during parsing.

Type: Boolean

Required: No

### **OptimizePerformance**

A Boolean value that specifies whether to use the advanced SIMD CSV reader along with Apache Arrow based columnar memory formats. Only available in AWS Glue version 3.0.

Type: Boolean

Required: No

### **OutputSchemas**

Specifies the data schema for the S3 CSV source.

Type: Array of [GlueSchema](#) objects

Required: No

### **Recurse**

If set to true, recursively reads files in all subdirectories under the specified paths.

Type: Boolean

Required: No

### **SkipFirst**

A Boolean value that specifies whether to skip the first data line. The default value is `False`.

Type: Boolean

Required: No

### **WithHeader**

A Boolean value that specifies whether to treat the first line as a header. The default value is `False`.

Type: Boolean

Required: No

### **WriteHeader**

A Boolean value that specifies whether to write the header to output. The default value is `True`.

Type: Boolean

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3DeltaCatalogTarget

Specifies a target that writes to a Delta Lake data source in the AWS Glue Data Catalog.

## Contents

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\r\\n]`)\*

Required: Yes

### Table

The name of the table in the database to write to.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: Yes

### AdditionalOptions

Specifies additional connection options for the connector.

Type: String to string map

Key Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Value Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: No

### PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`)<sup>\*</sup>

Required: No

### SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [CatalogSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3DeltaDirectTarget

Specifies a target that writes to a Delta Lake data source in Amazon S3.

## Contents

### Compression

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Valid Values: uncompressed | snappy

Required: Yes

### Format

Specifies the data output format for the target.

Type: String

Valid Values: json | csv | avro | orc | parquet | hudi | delta

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Path

The Amazon S3 path of your Delta Lake data source to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### AdditionalOptions

Specifies additional connection options for the connector.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [DirectSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3DeltaSource

Specifies a Delta Lake data source stored in Amazon S3.

## Contents

### Name

The name of the Delta Lake source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Paths

A list of the Amazon S3 paths to read from.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### AdditionalDeltaOptions

Specifies additional connection options.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

### AdditionalOptions

Specifies additional options for the connector.

Type: [S3DirectSourceAdditionalOptions](#) object

Required: No

### **OutputSchemas**

Specifies the data schema for the Delta Lake source.

Type: Array of [GlueSchema](#) objects

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3DirectSourceAdditionalOptions

Specifies additional connection options for the Amazon S3 data store.

## Contents

### BoundedFiles

Sets the upper limit for the target number of files that will be processed.

Type: Long

Required: No

### BoundedSize

Sets the upper limit for the target size of the dataset in bytes that will be processed.

Type: Long

Required: No

### EnableSamplePath

Sets option to enable a sample path.

Type: Boolean

Required: No

### SamplePath

If enabled, specifies the sample path.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF] | [^\\S\\r\\n"']`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# S3DirectTarget

Specifies a data target that writes to Amazon S3.

## Contents

### Format

Specifies the data output format for the target.

Type: String

Valid Values: json | csv | avro | orc | parquet | hudi | delta

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: ([\u0020-\u007F\u00E0\u0080-\u00FF\u00D8\u00DC\u00DB\u00DF]|[\^\r\n])\*

Required: Yes

### Path

A single Amazon S3 path to write to.

Type: String

Pattern: ([\u0020-\u007F\u00E0\u0080-\u00FF\u00D8\u00DC\u00DB\u00DF]|[\^\S\r\n"' ])\*

Required: Yes

## Compression

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Pattern: ( [\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'] )\*

Required: No

## PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: ( [\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"'] )\*

Required: No

## SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [DirectSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3Encryption

Specifies how Amazon Simple Storage Service (Amazon S3) data should be encrypted.

## Contents

### KmsKeyArn

The Amazon Resource Name (ARN) of the KMS key to be used to encrypt the data.

Type: String

Pattern: `arn:aws:kms:.*`

Required: No

### S3EncryptionMode

The encryption mode to use for Amazon S3 data.

Type: String

Valid Values: `DISABLED` | `SSE-KMS` | `SSE-S3`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3GlueParquetTarget

Specifies a data target that writes to Amazon S3 in Apache Parquet columnar storage.

## Contents

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the data target.

Type: String

Pattern: `([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### Path

A single Amazon S3 path to write to.

Type: String

Pattern: `([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`

Required: Yes

### Compression

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Valid Values: snappy | lzo | gzip | uncompressed | none

Required: No

### PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: ( [\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF] | [^\S\r\n"'] )\*

Required: No

### SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [DirectSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3HudiCatalogTarget

Specifies a target that writes to a Hudi data source in the AWS Glue Data Catalog.

## Contents

### AdditionalOptions

Specifies additional connection options for the connector.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### Database

The name of the database to write to.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]`\*

Required: Yes

## Name

The name of the data target.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\r\n])`)\*

Required: Yes

## Table

The name of the table in the database to write to.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n" ' ])`)\*

Required: Yes

## PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n" ' ])`)\*

Required: No

## SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [CatalogSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# S3HudiDirectTarget

Specifies a target that writes to a Hudi data source in Amazon S3.

## Contents

### AdditionalOptions

Specifies additional connection options for the connector.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### Compression

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Valid Values: `gzip` | `lzo` | `uncompressed` | `snappy`

Required: Yes

### Format

Specifies the data output format for the target.

Type: String

Valid Values: `json` | `csv` | `avro` | `orc` | `parquet` | `hudi` | `delta`

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

## Name

The name of the data target.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])\*

Required: Yes

## Path

The Amazon S3 path of your Hudi data source to write to.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"'])\*

Required: Yes

## PartitionKeys

Specifies native partitioning using a sequence of keys.

Type: Array of arrays of strings

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"'])\*

Required: No

## SchemaChangePolicy

A policy that specifies update behavior for the crawler.

Type: [DirectSchemaChangePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3HudiSource

Specifies a Hudi data source stored in Amazon S3.

## Contents

### Name

The name of the Hudi source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Paths

A list of the Amazon S3 paths to read from.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### AdditionalHudiOptions

Specifies additional connection options.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

### AdditionalOptions

Specifies additional options for the connector.

Type: [S3DirectSourceAdditionalOptions](#) object

Required: No

### **OutputSchemas**

Specifies the data schema for the Hudi source.

Type: Array of [GlueSchema](#) objects

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3JsonSource

Specifies a JSON data store stored in Amazon S3.

## Contents

### Name

The name of the data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Paths

A list of the Amazon S3 paths to read from.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### AdditionalOptions

Specifies additional connection options.

Type: [S3DirectSourceAdditionalOptions](#) object

Required: No

### CompressionType

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Valid Values: `gzip` | `bzip2`

Required: No

## Exclusions

A string containing a JSON list of Unix-style glob patterns to exclude. For example, "[\"\*\*.\*pdf\"]" excludes all PDF files.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## GroupFiles

Grouping files is turned on by default when the input contains more than 50,000 files. To turn on grouping with fewer than 50,000 files, set this parameter to "inPartition". To disable grouping when there are more than 50,000 files, set this parameter to "none".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## GroupSize

The target group size in bytes. The default is computed based on the input data size and the size of your cluster. When there are fewer than 50,000 input files, "groupFiles" must be set to "inPartition" for this to take effect.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: No

## JsonPath

A JsonPath string defining the JSON data.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: No

### MaxBand

This option controls the duration in milliseconds after which the s3 listing is likely to be consistent. Files with modification timestamps falling within the last maxBand milliseconds are tracked specially when using JobBookmarks to account for Amazon S3 eventual consistency. Most users don't need to set this option. The default is 900000 milliseconds, or 15 minutes.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### MaxFilesInBand

This option specifies the maximum number of files to save from the last maxBand seconds. If this number is exceeded, extra files are skipped and only processed in the next job run.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Multiline

A Boolean value that specifies whether a single record can span multiple lines. This can occur when a field contains a quoted new-line character. You must set this option to True if any record spans multiple lines. The default value is False, which allows for more aggressive file-splitting during parsing.

Type: Boolean

Required: No

### OutputSchemas

Specifies the data schema for the S3 JSON source.

Type: Array of [GlueSchema](#) objects



Required: No

## Recurse

If set to true, recursively reads files in all subdirectories under the specified paths.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3ParquetSource

Specifies an Apache Parquet data store stored in Amazon S3.

## Contents

### Name

The name of the data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### Paths

A list of the Amazon S3 paths to read from.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"']`)\*

Required: Yes

### AdditionalOptions

Specifies additional connection options.

Type: [S3DirectSourceAdditionalOptions](#) object

Required: No

### CompressionType

Specifies how the data is compressed. This is generally not necessary if the data has a standard file extension. Possible values are "gzip" and "bzip").

Type: String

Valid Values: snappy | lzo | gzip | uncompressed | none

Required: No

## Exclusions

A string containing a JSON list of Unix-style glob patterns to exclude. For example, "[\"\*\*\\.pdf\"]" excludes all PDF files.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## GroupFiles

Grouping files is turned on by default when the input contains more than 50,000 files. To turn on grouping with fewer than 50,000 files, set this parameter to "inPartition". To disable grouping when there are more than 50,000 files, set this parameter to "none".

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## GroupSize

The target group size in bytes. The default is computed based on the input data size and the size of your cluster. When there are fewer than 50,000 input files, "groupFiles" must be set to "inPartition" for this to take effect.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## MaxBand

This option controls the duration in milliseconds after which the s3 listing is likely to be consistent. Files with modification timestamps falling within the last maxBand milliseconds are tracked specially when using JobBookmarks to account for Amazon S3 eventual consistency. Most users don't need to set this option. The default is 900000 milliseconds, or 15 minutes.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **MaxFilesInBand**

This option specifies the maximum number of files to save from the last maxBand seconds. If this number is exceeded, extra files are skipped and only processed in the next job run.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **OutputSchemas**

Specifies the data schema for the S3 Parquet source.

Type: Array of [GlueSchema](#) objects

Required: No

### **Recurse**

If set to true, recursively reads files in all subdirectories under the specified paths.

Type: Boolean

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3SourceAdditionalOptions

Specifies additional connection options for the Amazon S3 data store.

## Contents

### BoundedFiles

Sets the upper limit for the target number of files that will be processed.

Type: Long

Required: No

### BoundedSize

Sets the upper limit for the target size of the dataset in bytes that will be processed.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3Target

Specifies a data store in Amazon Simple Storage Service (Amazon S3).

## Contents

### ConnectionName

The name of a connection which allows a job or crawler to access data in Amazon S3 within an Amazon Virtual Private Cloud environment (Amazon VPC).

Type: String

Required: No

### DlqEventQueueArn

A valid Amazon dead-letter SQS ARN. For example, `arn:aws:sqs:region:account:deadLetterQueue`.

Type: String

Required: No

### EventQueueArn

A valid Amazon SQS ARN. For example, `arn:aws:sqs:region:account:sqs`.

Type: String

Required: No

### Exclusions

A list of glob patterns used to exclude from the crawl. For more information, see [Catalog Tables with a Crawler](#).

Type: Array of strings

Required: No

### Path

The path to the Amazon S3 target.

Type: String

Required: No

### **SampleSize**

Sets the number of files in each leaf folder to be crawled when crawling sample files in a dataset. If not set, all the files are crawled. A valid value is an integer between 1 and 249.

Type: Integer

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Schedule

A scheduling object using a cron statement to schedule an event.

## Contents

### ScheduleExpression

A cron expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

Type: String

Required: No

### State

The state of the schedule.

Type: String

Valid Values: SCHEDULED | NOT\_SCHEDULED | TRANSITIONING

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SchemaChangePolicy

A policy that specifies update and deletion behaviors for the crawler.

## Contents

### DeleteBehavior

The deletion behavior when the crawler finds a deleted object.

Type: String

Valid Values: LOG | DELETE\_FROM\_DATABASE | DEPRECATE\_IN\_DATABASE

Required: No

### UpdateBehavior

The update behavior when the crawler finds a changed schema.

Type: String

Valid Values: LOG | UPDATE\_IN\_DATABASE

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SchemaColumn

A key-value pair representing a column and data type that this transform can run against. The Schema parameter of the `MLTransform` may contain up to 100 of these structures.

## Contents

### Data Type

The type of data in the column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131072.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Name

The name of the column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Schemald

The unique ID of the schema in the AWS Glue schema registry.

## Contents

### RegistryName

The name of the schema registry that contains the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

Required: No

### SchemaArn

The Amazon Resource Name (ARN) of the schema. One of `SchemaArn` or `SchemaName` has to be provided.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

### SchemaName

The name of the schema. One of `SchemaArn` or `SchemaName` has to be provided.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SchemaListItem

An object that contains minimal details for a schema.

## Contents

### CreatedTime

The date and time that a schema was created.

Type: String

Required: No

### Description

A description for the schema.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### RegistryName

the name of the registry where the schema resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

Required: No

### SchemaArn

The Amazon Resource Name (ARN) for the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

### **SchemaName**

The name of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[a-zA-Z0-9-_$#. ]+`

Required: No

### **SchemaStatus**

The status of the schema.

Type: String

Valid Values: AVAILABLE | PENDING | DELETING

Required: No

### **UpdatedTime**

The date and time that a schema was updated.

Type: String

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SchemaReference

An object that references a schema stored in the AWS Glue Schema Registry.

## Contents

### SchemaId

A structure that contains schema identity fields. Either this or the `SchemaVersionId` has to be provided.

Type: [SchemaId](#) object

Required: No

### SchemaVersionId

The unique ID assigned to a version of the schema. Either this or the `SchemaId` has to be provided.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### SchemaVersionNumber

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SchemaVersionErrorItem

An object that contains the error details for an operation on a schema version.

## Contents

### ErrorDetails

The details of the error for the schema version.

Type: [ErrorDetails](#) object

Required: No

### VersionNumber

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SchemaVersionListItem

An object containing the details about a schema version.

## Contents

### CreatedTime

The date and time the schema version was created.

Type: String

Required: No

### SchemaArn

The Amazon Resource Name (ARN) of the schema.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `arn:(aws|aws-us-gov|aws-cn):glue:.*`

Required: No

### SchemaVersionId

The unique identifier of the schema version.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### Status

The status of the schema version.

Type: String

Valid Values: AVAILABLE | PENDING | FAILURE | DELETING

Required: No

### **VersionNumber**

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SchemaVersionNumber

A structure containing the schema version information.

## Contents

### LatestVersion

The latest version available for the schema.

Type: Boolean

Required: No

### VersionNumber

The version number of the schema.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 100000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SecurityConfiguration

Specifies a security configuration.

## Contents

### CreatedTimeStamp

The time at which this security configuration was created.

Type: Timestamp

Required: No

### EncryptionConfiguration

The encryption configuration associated with this security configuration.

Type: [EncryptionConfiguration](#) object

Required: No

### Name

The name of the security configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Segment

Defines a non-overlapping region of a table's partitions, allowing multiple requests to be run in parallel.

## Contents

### SegmentNumber

The zero-based index number of the segment. For example, if the total number of segments is 4, SegmentNumber values range from 0 through 3.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### TotalSegments

The total number of segments.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SelectFields

Specifies a transform that chooses the data property keys that you want to keep.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### Paths

A JSON path to a variable in the data structure.

Type: Array of arrays of strings

Pattern: `([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SelectFromCollection

Specifies a transform that chooses one `DynamicFrame` from a collection of `DynamicFrames`. The output is the selected `DynamicFrame`

## Contents

### Index

The index for the `DynamicFrame` to be selected.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SerDeInfo

Information about a serialization/deserialization program (SerDe) that serves as an extractor and loader.

## Contents

### Name

Name of the SerDe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Parameters

These key-value pairs define initialization parameters for the SerDe.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

### SerializationLibrary

Usually the class that implements the SerDe. An example is `org.apache.hadoop.hive.serde2.columnar.ColumnarSerDe`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Session

The period in which a remote Spark runtime environment is running.

## Contents

### Command

The command object. See `SessionCommand`.

Type: [SessionCommand](#) object

Required: No

### CompletedOn

The date and time that this session is completed.

Type: Timestamp

Required: No

### Connections

The number of connections used for the session.

Type: [ConnectionsList](#) object

Required: No

### CreatedOn

The time and date when the session was created.

Type: Timestamp

Required: No

### DefaultArguments

A map array of key-value pairs. Max is 75 pairs.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 75 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\.\- _A-Za-z0-9]+`

Value Length Constraints: Minimum length of 0. Maximum length of 4096.

Value Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **Description**

The description of the session.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **DPUSecods**

The DPUs consumed by the session (formula: `ExecutionTime * MaxCapacity`).

Type: Double

Required: No

### **ErrorMessage**

The error message displayed during the session.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **ExecutionTime**

The total time the session ran for.

Type: Double

Required: No

### **GlueVersion**

The AWS Glue version determines the versions of Apache Spark and Python that AWS Glue supports. The GlueVersion must be greater than 2.0.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### **Id**

The ID of the session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **IdleTimeout**

The number of minutes when idle before the session times out.

Type: Integer

Required: No

### **MaxCapacity**

The number of AWS Glue data processing units (DPUs) that can be allocated when the job runs. A DPU is a relative measure of processing power that consists of 4 vCPUs of compute capacity and 16 GB memory.

Type: Double

Required: No



## NumberOfWorkers

The number of workers of a defined `WorkerType` to use for the session.

Type: Integer

Required: No

## Progress

The code execution progress of the session.

Type: Double

Required: No

## Role

The name or Amazon Resource Name (ARN) of the IAM role associated with the Session.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[^:]*:iam:[0-9]*:role/.+`

Required: No

## SecurityConfiguration

The name of the SecurityConfiguration structure to be used with the session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Status

The session status.

Type: String

Valid Values: PROVISIONING | READY | FAILED | TIMEOUT | STOPPING | STOPPED

Required: No

## WorkerType

The type of predefined worker that is allocated when a session runs. Accepts a value of G . 1X, G . 2X, G . 4X, or G . 8X for Spark sessions. Accepts the value Z . 2X for Ray sessions.

Type: String

Valid Values: Standard | G . 1X | G . 2X | G . 025X | G . 4X | G . 8X | Z . 2X

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SessionCommand

The SessionCommand that runs the job.

## Contents

### Name

Specifies the name of the SessionCommand. Can be 'glueetl' or 'gluestreaming'.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### PythonVersion

Specifies the Python version. The Python version indicates the version supported for jobs of type Spark.

Type: String

Pattern: `^[2-3]|3[.]9$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SkewedInfo

Specifies skewed values in a table. Skewed values are those that occur with very high frequency.

## Contents

### SkewedColumnNames

A list of names of columns that contain skewed values.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### SkewedColumnValueLocationMaps

A mapping of skewed values to the columns that contain them.

Type: String to string map

Required: No

### SkewedColumnValues

A list of values that appear so frequently as to be considered skewed.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SnowflakeNodeData

Specifies configuration for Snowflake nodes in AWS Glue Studio.

## Contents

### Action

Specifies what action to take when writing to a table with preexisting data. Valid values: `append`, `merge`, `truncate`, `drop`.

Type: String

Required: No

### AdditionalOptions

Specifies additional options passed to the Snowflake connector. If options are specified elsewhere in this node, this will take precedence.

Type: String to string map

Key Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Value Pattern: (`([\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

### AutoPushdown

Specifies whether automatic query pushdown is enabled. If pushdown is enabled, then when a query is run on Spark, if part of the query can be "pushed down" to the Snowflake server, it is pushed down. This improves performance of some queries.

Type: Boolean

Required: No

### Connection

Specifies a AWS Glue Data Catalog Connection to a Snowflake endpoint.

Type: [Option](#) object

Required: No

### Database

Specifies a Snowflake database for your node to use.

Type: String

Required: No

### IamRole

Not currently used.

Type: [Option](#) object

Required: No

### MergeAction

Specifies a merge action. Valid values: `simple`, `custom`. If `simple`, merge behavior is defined by `MergeWhenMatched` and `MergeWhenNotMatched`. If `custom`, defined by `MergeClause`.

Type: String

Pattern: `[A-Za-z0-9_-]*`

Required: No

### MergeClause

A SQL statement that specifies a custom merge behavior.

Type: String

Required: No

### MergeWhenMatched

Specifies how to resolve records that match preexisting data when merging. Valid values: `update`, `delete`.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### **MergeWhenNotMatched**

Specifies how to process records that do not match preexisting data when merging. Valid values: `insert`, `none`.

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

### **PostAction**

A SQL string run after the Snowflake connector performs its standard actions.

Type: String

Required: No

### **PreAction**

A SQL string run before the Snowflake connector performs its standard actions.

Type: String

Required: No

### **SampleQuery**

A SQL string used to retrieve data with the query sourcetype.

Type: String

Required: No

### **Schema**

Specifies a Snowflake database schema for your node to use.

Type: String

Required: No



## SelectedColumns

Specifies the columns combined to identify a record when detecting matches for merges and upserts. A list of structures with `value`, `label` and `description` keys. Each structure describes a column.

Type: Array of [Option](#) objects

Required: No

## SourceType

Specifies how retrieved data is specified. Valid values: "table", "query".

Type: String

Pattern: [A-Za-z0-9\_-]\*

Required: No

## StagingTable

The name of a staging table used when performing merge or upsert append actions. Data is written to this table, then moved to `table` by a generated postaction.

Type: String

Required: No

## Table

Specifies a Snowflake table for your node to use.

Type: String

Required: No

## TableSchema

Manually defines the target schema for the node. A list of structures with `value`, `label` and `description` keys. Each structure defines a column.

Type: Array of [Option](#) objects

Required: No

## TempDir

Not currently used.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"']`)\*

Required: No

## Upsert

Used when Action is append. Specifies the resolution behavior when a row already exists. If true, preexisting rows will be updated. If false, those rows will be inserted.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SnowflakeSource

Specifies a Snowflake data source.

## Contents

### Data

Configuration for the Snowflake data source.

Type: [SnowflakeNodeData](#) object

Required: Yes

### Name

The name of the Snowflake data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### OutputSchemas

Specifies user-defined schemas for your output data.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SnowflakeTarget

Specifies a Snowflake target.

## Contents

### Data

Specifies the data of the Snowflake target node.

Type: [SnowflakeNodeData](#) object

Required: Yes

### Name

The name of the Snowflake target.

Type: String

Pattern: (`[\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF]` | `[\^\r\n]`)\*

Required: Yes

### Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# SortCriterion

Specifies a field to sort by and a sort order.

## Contents

### FieldName

The name of the field on which to sort.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Sort

An ascending or descending sort.

Type: String

Valid Values: ASC | DESC

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SourceControlDetails

The details for a source control configuration for a job, allowing synchronization of job artifacts to or from a remote repository.

## Contents

### AuthStrategy

The type of authentication, which can be an authentication token stored in AWS Secrets Manager, or a personal access token.

Type: String

Valid Values: PERSONAL\_ACCESS\_TOKEN | AWS\_SECRETS\_MANAGER

Required: No

### AuthToken

The value of an authorization token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### Branch

An optional branch in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### Folder

An optional folder in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### **LastCommitId**

The last commit ID for a commit in the remote repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### **Owner**

The owner of the remote repository that contains the job artifacts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

### **Provider**

The provider for the remote repository.

Type: String

Valid Values: GITHUB | GITLAB | BITBUCKET | AWS\_CODE\_COMMIT

Required: No

### **Repository**

The name of the remote repository that contains the job artifacts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SparkConnectorSource

Specifies a connector to an Apache Spark data source.

## Contents

### ConnectionName

The name of the connection that is associated with the connector.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### ConnectionType

The type of connection, such as `marketplace.spark` or `custom.spark`, designating a connection to an Apache Spark data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### ConnectorName

The name of a connector that assists with accessing the data store in AWS Glue Studio.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: Yes

### Name

The name of the data source.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\r\\n]`)\*

Required: Yes

### AdditionalOptions

Additional connection options for the connector.

Type: String to string map

Key Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n''']`)\*

Value Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n''']`)\*

Required: No

### OutputSchemas

Specifies data schema for the custom spark source.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SparkConnectorTarget

Specifies a target that uses an Apache Spark connector.

## Contents

### ConnectionName

The name of a connection for an Apache Spark connector.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### ConnectionType

The type of connection, such as `marketplace.spark` or `custom.spark`, designating a connection to an Apache Spark data store.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

### ConnectorName

The name of an Apache Spark connector.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n"' ]`)\*

Required: Yes

## Inputs

The nodes that are inputs to the data target.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

## Name

The name of the data target.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])\*

Required: Yes

## AdditionalOptions

Additional connection options for the connector.

Type: String to string map

Key Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])\*

Value Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])\*

Required: No

## OutputSchemas

Specifies the data schema for the custom spark target.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SparkSQL

Specifies a transform where you enter a SQL query using Spark SQL syntax to transform the data. The output is a single `DynamicFrame`.

## Contents

### Inputs

The data inputs identified by their node names. You can associate a table name with each input node to use in the SQL query. The name you choose must meet the Spark SQL naming restrictions.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\u007F\u00E0-\u00FF\u0080-\u00FF\u0080-\u00FF\u0080-\u00FF] | [^\r\n])*`

Required: Yes

### SqlAliases

A list of aliases. An alias allows you to specify what name to use in the SQL for a given input. For example, you have a datasource named "MyDataSource". If you specify `From` as `MyDataSource`, and `Alias` as `SqlName`, then in your SQL you can do:

```
select * from SqlName
```

and that gets data from `MyDataSource`.

Type: Array of [SqlAlias](#) objects

Required: Yes

## SqlQuery

A SQL query that must use Spark SQL syntax and return a single data set.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF\\s]`)\*

Required: Yes

## OutputSchemas

Specifies the data schema for the SparkSQL transform.

Type: Array of [GlueSchema](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Spigot

Specifies a transform that writes samples of the data to an Amazon S3 bucket.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [A-Za-z0-9\_-]\*

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])\*

Required: Yes

### Path

A path in Amazon S3 where the transform will write a subset of records from the dataset to a JSON file in an Amazon S3 bucket.

Type: String

Pattern: ([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^S\r\n"'])\*

Required: Yes

### Prob

The probability (a decimal value with a maximum value of 1) of picking any given record. A value of 1 indicates that each row read from the dataset should be included in the sample output.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

## Topk

Specifies a number of records to write starting from the beginning of the dataset.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SplitFields

Specifies a transform that splits data property keys into two `DynamicFrames`. The output is a collection of `DynamicFrames`: one with selected data property keys, and one with the remaining data property keys.

## Contents

### Inputs

The data inputs identified by their node names.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

### Name

The name of the transform node.

Type: String

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\r\n])*`

Required: Yes

### Paths

A JSON path to a variable in the data structure.

Type: Array of arrays of strings

Pattern: `([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF]|[\^\S\r\n"' ])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SqlAlias

Represents a single entry in the list of values for `SqlAliases`.

## Contents

### Alias

A temporary name given to a table, or a column in a table.

Type: String

Pattern: (`[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF]` | `[\S\r\n]`)\*

Required: Yes

### From

A table, or a column in a table.

Type: String

Pattern: `[A-Za-z0-9_-]*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StartingEventBatchCondition

The batch condition that started the workflow run. Either the number of events in the batch size arrived, in which case the BatchSize member is non-zero, or the batch window expired, in which case the BatchWindow member is non-zero.

## Contents

### BatchSize

Number of events in the batch.

Type: Integer

Required: No

### BatchWindow

Duration of the batch window in seconds.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Statement

The statement or request for a particular action to occur in a session.

## Contents

### Code

The execution code of the statement.

Type: String

Required: No

### CompletedOn

The unix time and date that the job definition was completed.

Type: Long

Required: No

### Id

The ID of the statement.

Type: Integer

Required: No

### Output

The output in JSON.

Type: [StatementOutput](#) object

Required: No

### Progress

The code execution progress.

Type: Double

Required: No

## StartedOn

The unix time and date that the job definition was started.

Type: Long

Required: No

## State

The state while request is actioned.

Type: String

Valid Values: WAITING | RUNNING | AVAILABLE | CANCELLING | CANCELLED | ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# StatementOutput

The code execution output in JSON format.

## Contents

### Data

The code execution output.

Type: [StatementOutputData](#) object

Required: No

### ErrorName

The name of the error in the output.

Type: String

Required: No

### ErrorValue

The error value of the output.

Type: String

Required: No

### ExecutionCount

The execution count of the output.

Type: Integer

Required: No

### Status

The status of the code execution output.

Type: String

Valid Values: WAITING | RUNNING | AVAILABLE | CANCELLING | CANCELLED | ERROR

Required: No

## Traceback

The traceback of the output.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StatementOutputData

The code execution output in JSON format.

## Contents

### TextPlain

The code execution output in text format.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StorageDescriptor

Describes the physical storage of table data.

## Contents

### AdditionalLocations

A list of locations that point to the path where a Delta table is located.

Type: Array of strings

Length Constraints: Maximum length of 2056.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### BucketColumns

A list of reducer grouping columns, clustering columns, and bucketing columns in the table.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Columns

A list of the Columns in the table.

Type: Array of [Column](#) objects

Required: No

### Compressed

True if the data in the table is compressed, or False if not.

Type: Boolean

Required: No

## InputFormat

The input format: `SequenceFileInputFormat` (binary), or `TextInputFormat`, or a custom format.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Location

The physical location of the table. By default, this takes the form of the warehouse location, followed by the database location in the warehouse, followed by the table name.

Type: String

Length Constraints: Maximum length of 2056.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

## NumberOfBuckets

Must be specified if the table contains any dimension columns.

Type: Integer

Required: No

## OutputFormat

The output format: `SequenceFileOutputFormat` (binary), or `IgnoreKeyTextOutputFormat`, or a custom format.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Parameters

The user-supplied properties in key-value form.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

## SchemaReference

An object that references a schema stored in the AWS Glue Schema Registry.

When creating a table, you can pass an empty list of columns for the schema, and instead use a schema reference.

Type: [SchemaReference](#) object

Required: No

## SerdeInfo

The serialization/deserialization (SerDe) information.

Type: [SerDeInfo](#) object

Required: No

## SkewedInfo

The information about values that appear frequently in a column (skewed values).

Type: [SkewedInfo](#) object

Required: No

## SortColumns

A list specifying the sort order of each bucket in the table.

Type: Array of [Order](#) objects

Required: No

### **StoredAsSubDirectories**

True if the table data is stored in subdirectories, or False if not.

Type: Boolean

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StreamingDataPreviewOptions

Specifies options related to data preview for viewing a sample of your data.

## Contents

### PollingTime

The polling time in milliseconds.

Type: Long

Valid Range: Minimum value of 10.

Required: No

### RecordPollingLimit

The limit to the number of records polled.

Type: Long

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# StringColumnStatisticsData

Defines column statistics supported for character sequence data values.

## Contents

### AverageLength

The average string length in the column.

Type: Double

Valid Range: Minimum value of 0.0.

Required: Yes

### MaximumLength

The size of the longest string in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfDistinctValues

The number of distinct values in a column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

### NumberOfNulls

The number of null values in the column.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SupportedDialect

A structure specifying the dialect and dialect version used by the query engine.

## Contents

### Dialect

The dialect of the query engine.

Type: String

Valid Values: REDSHIFT | ATHENA | SPARK

Required: No

### DialectVersion

The version of the dialect of the query engine. For example, 3.0.0.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Table

Represents a collection of related data organized in columns and rows.

## Contents

### Name

The table name. For Hive compatibility, this must be entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CatalogId

The ID of the Data Catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CreatedBy

The person or entity who created the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CreateTime

The time when the table definition was created in the Data Catalog.

Type: Timestamp

Required: No

### **DatabaseName**

The name of the database where the table metadata resides. For Hive compatibility, this must be all lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Description**

A description of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### **FederatedTable**

A `FederatedTable` structure that references an entity outside the AWS Glue Data Catalog.

Type: [FederatedTable](#) object

Required: No

### **IsMultiDialectView**

Specifies whether the view supports the SQL dialects of one or more different query engines and can therefore be read by those engines.

Type: Boolean

Required: No

## **IsRegisteredWithLakeFormation**

Indicates whether the table has been registered with AWS Lake Formation.

Type: Boolean

Required: No

## **LastAccessTime**

The last time that the table was accessed. This is usually taken from HDFS, and might not be reliable.

Type: Timestamp

Required: No

## **LastAnalyzedTime**

The last time that column statistics were computed for this table.

Type: Timestamp

Required: No

## **Owner**

The owner of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## **Parameters**

These key-value pairs define properties associated with the table.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

### PartitionKeys

A list of columns by which the table is partitioned. Only primitive types are supported as partition keys.

When you create a table used by Amazon Athena, and you do not specify any `partitionKeys`, you must at least set the value of `partitionKeys` to an empty list. For example:

```
"PartitionKeys": []
```

Type: Array of [Column](#) objects

Required: No

### Retention

The retention time for this table.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### StorageDescriptor

A storage descriptor containing information about the physical storage of this table.

Type: [StorageDescriptor](#) object

Required: No

### TableType

The type of this table. AWS Glue will create tables with the `EXTERNAL_TABLE` type. Other services, such as Athena, may create tables with additional table types.

AWS Glue related table types:

`EXTERNAL_TABLE`

Hive compatible attribute - indicates a non-Hive managed table.

## GOVERNED

Used by AWS Lake Formation. The AWS Glue Data Catalog understands GOVERNED.

Type: String

Length Constraints: Maximum length of 255.

Required: No

## TargetTable

A `TableIdentifier` structure that describes a target table for resource linking.

Type: [TableIdentifier](#) object

Required: No

## UpdateTime

The last time that the table was updated.

Type: Timestamp

Required: No

## VersionId

The ID of the table version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\u007F\u00E0\u0000-\u00FF\u0080\u00DC\u0000-\u00BFF\u00DFFF\t]*`

Required: No

## ViewDefinition

A structure that contains all the information that defines the view, including the dialect or dialects for the view, and the query.

Type: [ViewDefinition](#) object

Required: No



## ViewExpandedText

Included for Apache Hive compatibility. Not used in the normal course of AWS Glue operations.

Type: String

Length Constraints: Maximum length of 409600.

Required: No

## ViewOriginalText

Included for Apache Hive compatibility. Not used in the normal course of AWS Glue operations. If the table is a VIRTUAL\_VIEW, certain Athena configuration encoded in base64.

Type: String

Length Constraints: Maximum length of 409600.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TableError

An error record for table operations.

## Contents

### ErrorDetail

The details about the error.

Type: [ErrorDetail](#) object

Required: No

### TableName

The name of the table. For Hive compatibility, this must be entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TableIdentifier

A structure that describes a target table for resource linking.

## Contents

### CatalogId

The ID of the Data Catalog in which the table resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### DatabaseName

The name of the catalog database that contains the target table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Name

The name of the target table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Region

Region of the target table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TableInput

A structure used to define a table.

## Contents

### Name

The table name. For Hive compatibility, this is folded to lowercase when it is stored.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Description

A description of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### LastAccessTime

The last time that the table was accessed.

Type: Timestamp

Required: No

### LastAnalyzedTime

The last time that column statistics were computed for this table.

Type: Timestamp

Required: No

## Owner

The table owner. Included for Apache Hive compatibility. Not used in the normal course of AWS Glue operations.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Parameters

These key-value pairs define properties associated with the table.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 512000.

Required: No

## PartitionKeys

A list of columns by which the table is partitioned. Only primitive types are supported as partition keys.

When you create a table used by Amazon Athena, and you do not specify any `partitionKeys`, you must at least set the value of `partitionKeys` to an empty list. For example:

```
"PartitionKeys": []
```

Type: Array of [Column](#) objects

Required: No

## Retention

The retention time for this table.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **StorageDescriptor**

A storage descriptor containing information about the physical storage of this table.

Type: [StorageDescriptor](#) object

Required: No

### **TableType**

The type of this table. AWS Glue will create tables with the EXTERNAL\_TABLE type. Other services, such as Athena, may create tables with additional table types.

AWS Glue related table types:

EXTERNAL\_TABLE

Hive compatible attribute - indicates a non-Hive managed table.

GOVERNED

Used by AWS Lake Formation. The AWS Glue Data Catalog understands GOVERNED.

Type: String

Length Constraints: Maximum length of 255.

Required: No

### **TargetTable**

A `TableIdentifier` structure that describes a target table for resource linking.

Type: [TableIdentifier](#) object

Required: No

### **ViewExpandedText**

Included for Apache Hive compatibility. Not used in the normal course of AWS Glue operations.

Type: String

Length Constraints: Maximum length of 409600.

Required: No

## ViewOriginalText

Included for Apache Hive compatibility. Not used in the normal course of AWS Glue operations. If the table is a VIRTUAL\_VIEW, certain Athena configuration encoded in base64.

Type: String

Length Constraints: Maximum length of 409600.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TableOptimizer

Contains details about an optimizer associated with a table.

## Contents

### configuration

A `TableOptimizerConfiguration` object that was specified when creating or updating a table optimizer.

Type: [TableOptimizerConfiguration](#) object

Required: No

### lastRun

A `TableOptimizerRun` object representing the last run of the table optimizer.

Type: [TableOptimizerRun](#) object

Required: No

### type

The type of table optimizer. Currently, the only valid value is `compaction`.

Type: String

Valid Values: `compaction`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TableOptimizerConfiguration

Contains details on the configuration of a table optimizer. You pass this configuration when creating or updating a table optimizer.

## Contents

### enabled

Whether table optimization is enabled.

Type: Boolean

Required: No

### roleArn

A role passed by the caller which gives the service permission to update the resources associated with the optimizer on the caller's behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TableOptimizerRun

Contains details for a table optimizer run.

## Contents

### endTimeStamp

Represents the epoch timestamp at which the compaction job ended.

Type: Timestamp

Required: No

### error

An error that occurred during the optimizer run.

Type: String

Required: No

### eventType

An event type representing the status of the table optimizer run.

Type: String

Valid Values: `starting` | `completed` | `failed` | `in_progress`

Required: No

### metrics

A `RunMetrics` object containing metrics for the optimizer run.

Type: [RunMetrics](#) object

Required: No

### startTimeStamp

Represents the epoch timestamp at which the compaction job was started within Lake Formation.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TableVersion

Specifies a version of a table.

## Contents

### Table

The table in question.

Type: [Table](#) object

Required: No

### VersionId

The ID value that identifies this table version. A `VersionId` is a string representation of an integer. Each version is incremented by 1.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TableVersionError

An error record for table-version operations.

## Contents

### ErrorDetail

The details about the error.

Type: [ErrorDetail](#) object

Required: No

### TableName

The name of the table in question.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### VersionId

The ID value of the version in question. A `VersionID` is a string representation of an integer. Each version is incremented by 1.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TaskRun

The sampling parameters that are associated with the machine learning transform.

## Contents

### CompletedOn

The last point in time that the requested task run was completed.

Type: Timestamp

Required: No

### ErrorString

The list of error strings associated with this task run.

Type: String

Required: No

### ExecutionTime

The amount of time (in seconds) that the task run consumed resources.

Type: Integer

Required: No

### LastModifiedOn

The last point in time that the requested task run was updated.

Type: Timestamp

Required: No

### LogGroupName

The names of the log group for secure logging, associated with this task run.

Type: String

Required: No



Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TaskRunFilterCriteria

The criteria that are used to filter the task runs for the machine learning transform.

## Contents

### StartedAfter

Filter on task runs started after this date.

Type: Timestamp

Required: No

### StartedBefore

Filter on task runs started before this date.

Type: Timestamp

Required: No

### Status

The current status of the task run.

Type: String

Valid Values: STARTING | RUNNING | STOPPING | STOPPED | SUCCEEDED | FAILED | TIMEOUT

Required: No

### TaskRunType

The type of task run.

Type: String

Valid Values: EVALUATION | LABELING\_SET\_GENERATION | IMPORT\_LABELS | EXPORT\_LABELS | FIND\_MATCHES

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TaskRunProperties

The configuration properties for the task run.

## Contents

### ExportLabelsTaskRunProperties

The configuration properties for an exporting labels task run.

Type: [ExportLabelsTaskRunProperties](#) object

Required: No

### FindMatchesTaskRunProperties

The configuration properties for a find matches task run.

Type: [FindMatchesTaskRunProperties](#) object

Required: No

### ImportLabelsTaskRunProperties

The configuration properties for an importing labels task run.

Type: [ImportLabelsTaskRunProperties](#) object

Required: No

### LabelingSetGenerationTaskRunProperties

The configuration properties for a labeling set generation task run.

Type: [LabelingSetGenerationTaskRunProperties](#) object

Required: No

### TaskType

The type of task run.

Type: String

Valid Values: EVALUATION | LABELING\_SET\_GENERATION | IMPORT\_LABELS | EXPORT\_LABELS | FIND\_MATCHES

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TaskRunSortCriteria

The sorting criteria that are used to sort the list of task runs for the machine learning transform.

## Contents

### Column

The column to be used to sort the list of task runs for the machine learning transform.

Type: String

Valid Values: TASK\_RUN\_TYPE | STATUS | STARTED

Required: Yes

### SortDirection

The sort direction to be used to sort the list of task runs for the machine learning transform.

Type: String

Valid Values: DESCENDING | ASCENDING

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TransformConfigParameter

Specifies the parameters in the config file of the dynamic transform.

## Contents

### Name

Specifies the name of the parameter in the config file of the dynamic transform.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFD\\uD800\\uDC00-\\uDBFF\\uDFFF]|[^\\S\\r\\n"' ]`)\*

Required: Yes

### Type

Specifies the parameter type in the config file of the dynamic transform.

Type: String

Valid Values: `str` | `int` | `float` | `complex` | `bool` | `list` | `null`

Required: Yes

### IsOptional

Specifies whether the parameter is optional or not in the config file of the dynamic transform.

Type: Boolean

Required: No

### ListType

Specifies the list type of the parameter in the config file of the dynamic transform.

Type: String

Valid Values: `str` | `int` | `float` | `complex` | `bool` | `list` | `null`

Required: No

## ValidationMessage

Specifies the validation message in the config file of the dynamic transform.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## ValidationRule

Specifies the validation rule in the config file of the dynamic transform.

Type: String

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## Value

Specifies the value of the parameter in the config file of the dynamic transform.

Type: Array of strings

Pattern: (`[\\u0020-\\uD7FF\\uE000-\\uFFFF\\uD800\\uDC00-\\uDBFF\\uDFFF]` | `[^\\S\\r\\n'' ]`)\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformEncryption

The encryption-at-rest settings of the transform that apply to accessing user data. Machine learning transforms can access user data encrypted in Amazon S3 using KMS.

Additionally, imported labels and trained transforms can now be encrypted using a customer provided KMS key.

## Contents

### MLUserDataEncryption

An `MLUserDataEncryption` object containing the encryption mode and customer-provided KMS key ID.

Type: [MLUserDataEncryption](#) object

Required: No

### TaskRunSecurityConfigurationName

The name of the security configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformFilterCriteria

The criteria used to filter the machine learning transforms.

## Contents

### CreatedAfter

The time and date after which the transforms were created.

Type: Timestamp

Required: No

### CreatedBefore

The time and date before which the transforms were created.

Type: Timestamp

Required: No

### GlueVersion

This value determines which version of AWS Glue this machine learning transform is compatible with. Glue 1.0 is recommended for most customers. If the value is not set, the Glue compatibility defaults to Glue 0.9. For more information, see [AWS Glue Versions](#) in the developer guide.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^\w+\.\w+$`

Required: No

### LastModifiedAfter

Filter on transforms last modified after this date.

Type: Timestamp

Required: No

## LastModifiedBefore

Filter on transforms last modified before this date.

Type: Timestamp

Required: No

## Name

A unique transform name that is used to filter the machine learning transforms.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Schema

Filters on datasets with a specific schema. The `Map<Column, Type>` object is an array of key-value pairs representing the schema this transform accepts, where `Column` is the name of a column, and `Type` is the type of the data such as an integer or string. Has an upper bound of 100 columns.

Type: Array of [SchemaColumn](#) objects

Array Members: Maximum number of 100 items.

Required: No

## Status

Filters the list of machine learning transforms by the last known status of the transforms (to indicate whether a transform can be used or not). One of "NOT\_READY", "READY", or "DELETING".

Type: String

Valid Values: NOT\_READY | READY | DELETING

Required: No

## TransformType

The type of machine learning transform that is used to filter the machine learning transforms.

Type: String

Valid Values: FIND\_MATCHES

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformParameters

The algorithm-specific parameters that are associated with the machine learning transform.

## Contents

### TransformType

The type of machine learning transform.

For information about the types of machine learning transforms, see [Creating Machine Learning Transforms](#).

Type: String

Valid Values: FIND\_MATCHES

Required: Yes

### FindMatchesParameters

The parameters for the find matches algorithm.

Type: [FindMatchesParameters](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformSortCriteria

The sorting criteria that are associated with the machine learning transform.

## Contents

### Column

The column to be used in the sorting criteria that are associated with the machine learning transform.

Type: String

Valid Values: NAME | TRANSFORM\_TYPE | STATUS | CREATED | LAST\_MODIFIED

Required: Yes

### SortDirection

The sort direction to be used in the sorting criteria that are associated with the machine learning transform.

Type: String

Valid Values: DESCENDING | ASCENDING

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Trigger

Information about a specific trigger.

## Contents

### Actions

The actions initiated by this trigger.

Type: Array of [Action](#) objects

Required: No

### Description

A description of this trigger.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### EventBatchingCondition

Batch condition that must be met (specified number of events received or batch time window expired) before EventBridge event trigger fires.

Type: [EventBatchingCondition](#) object

Required: No

### Id

Reserved for future use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Name

The name of the trigger.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Predicate

The predicate of this trigger, which defines when it will fire.

Type: [Predicate](#) object

Required: No

## Schedule

A cron expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

Type: String

Required: No

## State

The current state of the trigger.

Type: String

Valid Values: CREATING | CREATED | ACTIVATING | ACTIVATED | DEACTIVATING | DEACTIVATED | DELETING | UPDATING

Required: No

## Type

The type of trigger that this is.

Type: String

Valid Values: SCHEDULED | CONDITIONAL | ON\_DEMAND | EVENT

Required: No

## **WorkflowName**

The name of the workflow associated with the trigger.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TriggerNodeDetails

The details of a Trigger node present in the workflow.

## Contents

### Trigger

The information of the trigger represented by the trigger node.

Type: [Trigger](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TriggerUpdate

A structure used to provide information used to update a trigger. This object updates the previous trigger definition by overwriting it completely.

## Contents

### Actions

The actions initiated by this trigger.

Type: Array of [Action](#) objects

Required: No

### Description

A description of this trigger.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\x\n\t]*`

Required: No

### EventBatchingCondition

Batch condition that must be met (specified number of events received or batch time window expired) before EventBridge event trigger fires.

Type: [EventBatchingCondition](#) object

Required: No

### Name

Reserved for future use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## Predicate

The predicate of this trigger, which defines when it will fire.

Type: [Predicate](#) object

Required: No

## Schedule

A cron expression used to specify the schedule (see [Time-Based Schedules for Jobs and Crawlers](#)). For example, to run something every day at 12:15 UTC, you would specify: `cron(15 12 * * ? *)`.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UnfilteredPartition

A partition that contains unfiltered metadata.

## Contents

### AuthorizedColumns

The list of columns the user has permissions to access.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### IsRegisteredWithLakeFormation

A Boolean value indicating that the partition location is registered with Lake Formation.

Type: Boolean

Required: No

### Partition

The partition object.

Type: [Partition](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)







## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UpdateCsvClassifierRequest

Specifies a custom CSV classifier to be updated.

## Contents

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### AllowSingleColumn

Enables the processing of files that contain only one column.

Type: Boolean

Required: No

### ContainsHeader

Indicates whether the CSV file contains a header.

Type: String

Valid Values: UNKNOWN | PRESENT | ABSENT

Required: No

### CustomDatatypeConfigured

Specifies the configuration of custom datatypes.

Type: Boolean

Required: No

### CustomDatatypes

Specifies a list of supported custom datatypes.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **Delimiter**

A custom symbol to denote what separates each column entry in the row.

Type: String

Length Constraints: Fixed length of 1.

Pattern: `[\^\r\n]`

Required: No

### **DisableValueTrimming**

Specifies not to trim values before identifying the type of column values. The default value is true.

Type: Boolean

Required: No

### **Header**

A list of strings representing column names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **QuoteSymbol**

A custom symbol to denote what combines content into a single column value. It must be different from the column delimiter.

Type: String

Length Constraints: Fixed length of 1.

Pattern: [^\r\n]

Required: No

## Serde

Sets the SerDe for processing CSV in the classifier, which will be applied in the Data Catalog. Valid values are `OpenCSVSerde`, `LazySimpleSerDe`, and `None`. You can specify the `None` value when you want the crawler to do the detection.

Type: String

Valid Values: `OpenCSVSerde` | `LazySimpleSerDe` | `None`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UpdateGrokClassifierRequest

Specifies a grok classifier to update when passed to `UpdateClassifier`.

## Contents

### Name

The name of the `GrokClassifier`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Classification

An identifier of the data format that the classifier matches, such as Twitter, JSON, Omniture logs, Amazon CloudWatch Logs, and so on.

Type: String

Required: No

### CustomPatterns

Optional custom grok patterns used by this classifier.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16000.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

### GrokPattern

The grok pattern used by this classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UpdateJsonClassifierRequest

Specifies a JSON classifier to be updated.

## Contents

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### JsonPath

A JsonPath string defining the JSON data for the classifier to classify. AWS Glue supports a subset of JsonPath, as described in [Writing JsonPath Custom Classifiers](#).

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# UpdateXMLClassifierRequest

Specifies an XML classifier to be updated.

## Contents

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Classification

An identifier of the data format that the classifier matches.

Type: String

Required: No

### RowTag

The XML tag designating the element that contains each record in an XML document being parsed. This cannot identify a self-closing element (closed by `/>`). An empty row element that contains only attributes can be parsed as long as it ends with a closing tag (for example, `<row item_a="A" item_b="B"></row>` is okay, but `<row item_a="A" item_b="B" />` is not).

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UpsertRedshiftTargetOptions

The options to configure an upsert operation when writing to a Redshift target .

## Contents

### ConnectionName

The name of the connection to use to write to Redshift.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

### TableLocation

The physical location of the Redshift table.

Type: String

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

### UpsertKeys

The keys used to determine whether to perform an update or insert.

Type: Array of strings

Pattern: (`([\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF] | [^\S\r\n"' ])*`)

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UserDefinedFunction

Represents the equivalent of a Hive user-defined function (UDF) definition.

## Contents

### CatalogId

The ID of the Data Catalog in which the function resides.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ClassName

The Java class that contains the function code.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### CreateTime

The time at which the function was created.

Type: Timestamp

Required: No

### DatabaseName

The name of the catalog database that contains the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **FunctionName**

The name of the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **OwnerName**

The owner of the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### **OwnerType**

The owner type.

Type: String

Valid Values: USER | ROLE | GROUP

Required: No

### **ResourceUris**

The resource URIs for the function.

Type: Array of [ResourceUri](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UserDefinedFunctionInput

A structure used to create or update a user-defined function.

## Contents

### ClassName

The Java class that contains the function code.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### FunctionName

The name of the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### OwnerName

The owner of the function.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### OwnerType

The owner type.



Type: String

Valid Values: USER | ROLE | GROUP

Required: No

### ResourceUris

The resource URIs for the function.

Type: Array of [ResourceUri](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewDefinition

A structure containing details for representations.

## Contents

### Definer

The definer of a view in SQL.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

### IsProtected

You can set this flag as true to instruct the engine not to push user-provided operations into the logical plan of the view during query planning. However, setting this flag does not guarantee that the engine will comply. Refer to the engine's documentation to understand the guarantees provided, if any.

Type: Boolean

Required: No

### Representations

A list of representations.

Type: Array of [ViewRepresentation](#) objects

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Required: No

### SubObjects

A list of table Amazon Resource Names (ARNs).

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewRepresentation

A structure that contains the dialect of the view, and the query that defines the view.

## Contents

### Dialect

The dialect of the query engine.

Type: String

Valid Values: REDSHIFT | ATHENA | SPARK

Required: No

### DialectVersion

The version of the dialect of the query engine. For example, 3.0.0.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

### IsStale

Dialects marked as stale are no longer valid and must be updated before they can be queried in their respective query engines.

Type: Boolean

Required: No

### ViewExpandedText

The expanded SQL for the view. This SQL is used by engines while processing a query on a view. Engines may perform operations during view creation to transform `ViewOriginalText` to `ViewExpandedText`. For example:

- Fully qualify identifiers: `SELECT * from table1 # SELECT * from db1.table1`

Type: String

Length Constraints: Maximum length of 409600.

Required: No

### **ViewOriginalText**

The SELECT query provided by the customer during CREATE VIEW DDL. This SQL is not used during a query on a view (ViewExpandedText is used instead). ViewOriginalText is used for cases like SHOW CREATE VIEW where users want to see the original DDL command that created the view.

Type: String

Length Constraints: Maximum length of 409600.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## Graph

The graph representing all the AWS Glue components that belong to the workflow as nodes and directed connections between them as edges.

Type: [WorkflowGraph](#) object

Required: No

## LastModifiedOn

The date and time when the workflow was last modified.

Type: Timestamp

Required: No

## LastRun

The information about the last execution of the workflow.

Type: [WorkflowRun](#) object

Required: No

## MaxConcurrentRuns

You can use this parameter to prevent unwanted multiple updates to data, to control costs, or in some cases, to prevent exceeding the maximum number of concurrent runs of any of the component jobs. If you leave this parameter blank, there is no limit to the number of concurrent workflow runs.

Type: Integer

Required: No

## Name

The name of the workflow.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# WorkflowGraph

A workflow graph represents the complete workflow containing all the AWS Glue components present in the workflow and all the directed connections between them.

## Contents

### Edges

A list of all the directed connections between the nodes belonging to the workflow.

Type: Array of [Edge](#) objects

Required: No

### Nodes

A list of the the AWS Glue components belong to the workflow represented as nodes.

Type: Array of [Node](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkflowRun

A workflow run is an execution of a workflow providing all the runtime information.

## Contents

### CompletedOn

The date and time when the workflow run completed.

Type: Timestamp

Required: No

### ErrorMessage

This error message describes any error that may have occurred in starting the workflow run. Currently the only error message is "Concurrent runs exceeded for workflow: foo."

Type: String

Required: No

### Graph

The graph representing all the AWS Glue components that belong to the workflow as nodes and directed connections between them as edges.

Type: [WorkflowGraph](#) object

Required: No

### Name

Name of the workflow that was run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## PreviousRunId

The ID of the previous workflow run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## StartedOn

The date and time when the workflow run was started.

Type: Timestamp

Required: No

## StartingEventBatchCondition

The batch condition that started the workflow run.

Type: [StartingEventBatchCondition](#) object

Required: No

## Statistics

The statistics of the run.

Type: [WorkflowRunStatistics](#) object

Required: No

## Status

The status of the workflow run.

Type: String

Valid Values: RUNNING | COMPLETED | STOPPING | STOPPED | ERROR

Required: No

## WorkflowRunId

The ID of this workflow run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## WorkflowRunProperties

The workflow run properties which were set during the run.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 255.

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkflowRunStatistics

Workflow run statistics provides statistics about the workflow run.

## Contents

### ErroredActions

Indicates the count of job runs in the ERROR state in the workflow run.

Type: Integer

Required: No

### FailedActions

Total number of Actions that have failed.

Type: Integer

Required: No

### RunningActions

Total number Actions in running state.

Type: Integer

Required: No

### StoppedActions

Total number of Actions that have stopped.

Type: Integer

Required: No

### SucceededActions

Total number of Actions that have succeeded.

Type: Integer

Required: No

## TimeoutActions

Total number of Actions that timed out.

Type: Integer

Required: No

## TotalActions

Total number of Actions in the workflow run.

Type: Integer

Required: No

## WaitingActions

Indicates the count of job runs in WAITING state in the workflow run.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# XMLClassifier

A classifier for XML content.

## Contents

### Classification

An identifier of the data format that the classifier matches.

Type: String

Required: Yes

### Name

The name of the classifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### CreationTime

The time that this classifier was registered.

Type: Timestamp

Required: No

### LastUpdated

The time that this classifier was last updated.

Type: Timestamp

Required: No

### RowTag

The XML tag designating the element that contains each record in an XML document being parsed. This can't identify a self-closing element (closed by `/>`). An empty row element that

contains only attributes can be parsed as long as it ends with a closing tag (for example, `<row item_a="A" item_b="B"></row>` is okay, but `<row item_a="A" item_b="B" />` is not).

Type: String

Required: No

## Version

The version of this classifier.

Type: Long

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

## X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: *access\_key/YYYYMMDD/region/service/aws4\_request*.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

### **X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see [AWS services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

### **X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

## Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

### **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

### **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

### **InvalidClientTokenId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

### **NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 400

### **OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

**ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400