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Welcome

AWS AppSync provides API actions for creating and interacting with data sources using GraphQL from your application.

This document was last published on February 7, 2018.
The following actions are supported:

- CreateApiKey (p. 3)
- CreateDataSource (p. 6)
- CreateGraphqlApi (p. 10)
- CreateResolver (p. 13)
- CreateType (p. 16)
- DeleteApiKey (p. 19)
- DeleteDataSource (p. 21)
- DeleteGraphqlApi (p. 23)
- DeleteResolver (p. 25)
- DeleteType (p. 27)
- GetDataSource (p. 29)
- GetGraphqlApi (p. 32)
- GetIntrospectionSchema (p. 34)
- GetResolver (p. 36)
- GetSchemaCreationStatus (p. 38)
- GetType (p. 40)
- ListApiKeys (p. 42)
- ListDataSources (p. 45)
- ListGraphqlApis (p. 48)
- ListResolvers (p. 51)
- ListTypes (p. 54)
- StartSchemaCreation (p. 57)
- UpdateDataSource (p. 60)
- UpdateGraphqlApi (p. 64)
- UpdateResolver (p. 67)
- UpdateType (p. 70)
CreateApikey

Creates a unique key that you can distribute to clients who are executing your API.

Request Syntax

```plaintext
POST /apis/{apiId}/apikeys HTTP/1.1
Content-type: application/json

{
    "description": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 3)

The ID for your GraphQL API.

Request Body

The request accepts the following data in JSON format.

description (p. 3)

A description of the purpose of the API key.

Type: String

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "apiKey": {
        "description": "string",
        "expires": number,
        "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.
apiKey (p. 3)

The API key.

Type: ApiKey (p. 74) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

ApiKeyLimitExceededException

The API key exceeded a limit. Try your request again.

HTTP Status Code: 400

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
CreateDataSource

Creates a **DataSource** object.

**Request Syntax**

```plaintext
POST /apis/apiId/datasources HTTP/1.1
Content-type: application/json

{
  "description": "string",
  "dynamodbConfig": {
    "awsRegion": "string",
    "tableName": "string",
    "useCallerCredentials": boolean
  },
  "elasticsearchConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "name": "string",
  "serviceRoleArn": "string",
  "type": "string"
}
```

**URI Request Parameters**

The request requires the following URI parameters.

apiId (p. 6)

The API ID for the GraphQL API for the **DataSource**.

**Request Body**

The request accepts the following data in JSON format.

**description** (p. 6)

A description of the **DataSource**.

Type: String

Required: No

**dynamodbConfig** (p. 6)

DynamoDB settings.

Type: **DynamodbDataSourceConfig** (p. 77) object

Required: No

**elasticsearchConfig** (p. 6)

Amazon Elasticsearch settings.
Type: ElasticsearchDataSourceConfig (p. 78) object

Required: No

lambdaConfig (p. 6)

AWS Lambda settings.

Type: LambdaDataSourceConfig (p. 81) object

Required: No

name (p. 6)

A user-supplied name for the DataSource.

Type: String

Pattern: [_.A-Za-z][_.0-9A-Za-z]*

Required: Yes

serviceRoleArn (p. 6)

The IAM service role ARN for the data source. The system assumes this role when accessing the data source.

Type: String

Required: No

type (p. 6)

The type of the DataSource.

Type: String

Valid Values: AWS_LAMBDA | AMAZON_DYNAMODB | AMAZON_ELASTICSEARCH

Required: Yes

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "dataSource": {
    "dataSourceArn": "string",
    "description": "string",
    "dynamodbConfig": {
      "awsRegion": "string",
      "tableName": "string",
      "useCallerCredentials": boolean
    },
    "elasticsearchConfig": {
      "awsRegion": "string",
      "endpoint": "string"
    },
    "lambdaConfig": {
      "lambdaFunctionArn": "string"
    },
    "name": "string",
    "serviceRoleArn": "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.

dataSource (p. 7)

The `DataSource` object.

Type: `DataSource (p. 75) object`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
CreateGraphqlApi

Creates a GraphQLApi object.

Request Syntax

```
POST /apis HTTP/1.1
Content-type: application/json

{
    "authenticationType": "string",
    "name": "string",
    "userPoolConfig": {
        "appIdClientRegex": "string",
        "awsRegion": "string",
        "defaultAction": "string",
        "userPoolId": "string"
    }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

authenticationType (p. 10)

The authentication type: API key, IAM, or Amazon Cognito User Pools.

Type: String

Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS

Required: Yes

name (p. 10)

A user-supplied name for the GraphQLApi.

Type: String

Pattern: [\_A-Za-z][\_0-9A-Za-z]*

Required: Yes

userPoolConfig (p. 10)

The Amazon Cognito User Pool configuration.

Type: UserPoolConfig (p. 85) object

Required: No

Response Syntax

```
HTTP/1.1 200
```

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Content-type: application/json

{
  "graphqlApi": {
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "name": "string",
    "uris": {
      "string": "string"
    },
    "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "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.

**graphqlApi (p. 10)**

The `graphqlApi`.

Type: `GraphQLApi` object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

**ApiLimitExceededException**

The GraphQL API exceeded a limit. Try your request again.

HTTP Status Code: 400

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500
LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

LimitExceededException

The request exceeded a limit. Try your request again.

HTTP Status Code: 429

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
CreateResolver

Create a Resolver object.

A resolver converts incoming requests into a format that a data source can understand and converts the data source's responses into GraphQL.

Request Syntax

POST /apis/apiId/types/typeName/resolvers HTTP/1.1
Content-type: application/json

{
  "dataSourceName": "string",
  "fieldName": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string"
}

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 13)

The ID for the GraphQL API for which the resolver is being created.

typeName (p. 13)

The name of the Type.

Pattern: [\_A-Za-z\_0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.

dataSourceName (p. 13)

The name of the data source for which the resolver is being created.

Type: String

Pattern: [\_A-Za-z\_0-9A-Za-z]*

Required: Yes

fieldName (p. 13)

The name of the field to attach the resolver to.

Type: String

Pattern: [\_A-Za-z\_0-9A-Za-z]*

Required: Yes

requestMappingTemplate (p. 13)

The mapping template to be used for requests.
A resolver use a request mapping template to convert a GraphQL expression into a format that a
data source can understand. Mapping templates are written in Apache Velocity Template Language
(VTL).

Type: String
Length Constraints: Minimum length of 0. Maximum length of 65536.
Required: Yes

**responseMappingTemplate (p. 13)**

The mapping template to be used for responses from the data source.
Type: String
Length Constraints: Minimum length of 0. Maximum length of 65536.
Required: No

---

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "resolver": {
      "dataSourceName": "string",
      "fieldName": "string",
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "typeName": "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.

**resolver (p. 14)**

The Resolver object.
Type: Resolver (p. 82) object

---

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

**ConcurrentModificationException**

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409
InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
CreateType

Creates a Type object.

Request Syntax

POST /apis/apiId/types HTTP/1.1
Content-type: application/json
{
  "definition": "string",
  "format": "string"
}

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 16)
  The API ID.

Request Body

The request accepts the following data in JSON format.

definition (p. 16)
  The type definition, in GraphQL Schema Definition Language (SDL) format.
  For more information, see the GraphQL SDL documentation.
  Type: String
  Required: Yes

format (p. 16)
  The type format: SDL or JSON.
  Type: String
  Valid Values: SDL | JSON
  Required: Yes

Response Syntax

HTTP/1.1 200
Content-type: application/json
{
  "type": {
    "arn": "string",
    "definition": "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.

type (p. 16)

The `Type` object.

Type: `Type` (p. 84) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

`BadRequestException`

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

`ConcurrentModificationException`

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

`InternalFailureException`

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

`NotFoundException`

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

`UnauthorizedException`

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
DeleteApiKeyId

Deletes an API key.

**Request Syntax**

```plaintext
DELETE /apis/{apiId}/apikeys/{id} HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- `apiId` *(p. 19)*
  - The API ID.
- `id` *(p. 19)*
  - The ID for the API key.

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
```

**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](#) *(p. 88).*

- **BadRequestException**
  - The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.
  - HTTP Status Code: 400

- **InternalFailureException**
  - An internal AWS AppSync error occurred. Try your request again.
  - HTTP Status Code: 500

- **NotFoundException**
  - The resource specified in the request was not found. Check the resource and try again.
  - HTTP Status Code: 404
UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
DeleteDataSource

Deletes a DataSource object.

Request Syntax

```
DELETE /apis/{apiId}/datasources/{name} HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId** *(p. 21)*
  - The API ID.
- **name** *(p. 21)*
  - The name of the data source.
  - Pattern: `[_A-Za-z][_0-9A-Za-z]*`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

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 *(p. 88).*

- **BadRequestException**
  - The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.
  - HTTP Status Code: 400

- **ConcurrentModificationException**
  - Another modification is being made. That modification must complete before you can make your change.
  - HTTP Status Code: 409

- **InternalFailureException**
  - An internal AWS AppSync error occurred. Try your request again.

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HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
DeleteGraphqlApi

Deletes a GraphqlApi object.

Request Syntax

DELETE /apis/apiId HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 23)

The API ID.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200

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 (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.
HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
DeleteResolver

Deletes a Resolver object.

Request Syntax

```
DELETE /apis/apiId/types/typeName/resolvers/fieldName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId** (p. 25)
  The API ID.
- **fieldName** (p. 25)
  The resolver field name.
  Pattern: `[A-Za-z][0-9A-Za-z]*`
- **typeName** (p. 25)
  The name of the resolver type.
  Pattern: `[A-Za-z][0-9A-Za-z]*`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

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 (p. 88).

- **ConcurrentModificationException**
  Another modification is being made. That modification must complete before you can make your change.
  HTTP Status Code: 409

- **InternalFailureException**
  An internal AWS AppSync error occurred. Try your request again.
HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
DeleteType

Deletes a Type object.

Request Syntax

```
DELETE /apis/apiId/types/typeName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId (p. 27)**
  - The API ID.
- **typeName (p. 27)**
  - The type name.
  - Pattern: [A-Za-z][0-9A-Za-z]*

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

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 (p. 88).

- **BadRequestException**
  - The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.
  - HTTP Status Code: 400

- **ConcurrentModificationException**
  - Another modification is being made. That modification must complete before you can make your change.
  - HTTP Status Code: 409

- **InternalFailureException**
  - An internal AWS AppSync error occurred. Try your request again.
HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
GetDataSource

Retrieves a DataSource object.

Request Syntax

GET /apis/apiId/datasources/name HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 29)

The API ID.

name (p. 29)

The name of the data source.

Pattern: __A-Za-z__[0-9A-Za-z]*

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "dataSource": {
    "dataSourceArn": "string",
    "description": "string",
    "dynamodbConfig": {
      "awsRegion": "string",
      "tableName": "string",
      "useCallerCredentials": boolean
    },
    "elasticsearchConfig": {
      "awsRegion": "string",
      "endpoint": "string"
    },
    "lambdaConfig": {
      "lambdaFunctionArn": "string"
    },
    "name": "string",
    "serviceRoleArn": "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.

**dataSource (p. 29)**

The `DataSource` object.

Type: `DataSource (p. 75)` object

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

### BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

### ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

### InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

### NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

### UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

## 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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
GetGraphqlApi

Retrieves a GraphqlApi object.

Request Syntax

```
GET /apis/apiId HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 32)

The API ID for the GraphQL API.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "graphqlApi": {
        "apiId": "string",
        "arn": "string",
        "authenticationType": "string",
        "name": "string",
        "uris": {
            "string": "string"
        },
        "userPoolConfig": {
            "appIdClientRegex": "string",
            "awsRegion": "string",
            "defaultAction": "string",
            "userPoolId": "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.

graphqlApi (p. 32)

The GraphqlApi object.

Type: GraphqlApi (p. 79) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
GetIntrospectionSchema

Retrieves the introspection schema for a GraphQL API.

Request Syntax

GET /apis/apiId/schema?format=format HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 34)

The API ID.

format (p. 34)

The schema format: SDL or JSON.

Valid Values: SDL | JSON

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200

schema

Response Elements

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

The response returns the following as the HTTP body.

schema (p. 34)

The schema, in GraphQL Schema Definition Language (SDL) format.

For more information, see the GraphQL SDL documentation.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

GraphQLSchemaException

The GraphQL schema is not valid.
HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
GetResolver

Retrieves a Resolver object.

Request Syntax

```
GET /apis/apiId/types/typeName/resolvers/fieldName HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId** (p. 36)
  The API ID.

- **fieldName** (p. 36)
  The resolver field name.
  Pattern: `[A-Za-z][0-9A-Za-z]*`

- **typeName** (p. 36)
  The resolver type name.
  Pattern: `[A-Za-z][0-9A-Za-z]*`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "resolver": {
    "dataSourceName": "string",
    "fieldName": "string",
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "string",
    "typeName": "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.
resolver (p. 36)

The Resolver object.

Type: Resolver (p. 82) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
GetSchemaCreationStatus

Retrieves the current status of a schema creation operation.

Request Syntax

GET /apis/apiId/schemacreation HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

aplid (p. 38)

The API ID.

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{   "details": "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.

details (p. 38)

Detailed information about the status of the schema creation operation.

Type: String

status (p. 38)

The current state of the schema (PROCESSING, ACTIVE, or DELETING). Once the schema is in the ACTIVE state, you can add data.

Type: String

Valid Values: PROCESSING | ACTIVE | DELETING

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).
**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
GetType

Retrieves a Type object.

Request Syntax

```
GET /apis/apiId/types/typeName?format=format HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 40)

The API ID.

format (p. 40)

The type format: SDL or JSON.

Valid Values: SDL | JSON

typeName (p. 40)

The type name.

Pattern: [_A-Za-z][0-9A-Za-z]*

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "type": {
        "arn": "string",
        "definition": "string",
        "description": "string",
        "format": "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.

**type (p. 40)**

The Type object.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
ListApiKeys

Lists the API keys for a given API.

Request Syntax

GET /apis/\apiId/\apikeys?\maxResults=\maxResults&\nextToken=\nextToken HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

\apiId (p. 42)

The API ID.

\maxResults (p. 42)

The maximum number of results you want the request to return.

Valid Range: Minimum value of 0. Maximum value of 25.

\nextToken (p. 42)

An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.

Pattern: [\S]+

Request Body

The request does not have a request body.

Response Syntax

HTTP/1.1 200
Content-type: application/json

{
    "\apiKeys": [
        {
            "description": "string",
            "\expires": number,
            "\id": "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.
apiKeys (p. 42)

The ApiKey objects.
Type: Array of ApiKey (p. 74) objects

nextToken (p. 42)

An identifier to be passed in the next request to this operation to return the next set of items in the list.
Type: String
Pattern: [\S]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.
HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.
HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.
HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.
HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
ListDataSources

Lists the data sources for a given API.

Request Syntax

GET /apis/{apiId}/datasources?maxResults={maxResults}&nextToken={nextToken} HTTP/1.1

URI Request Parameters

The request requires the following URI parameters.

**apiId (p. 45)**

The API ID.

**maxResults (p. 45)**

The maximum number of results you want the request to return.

Valid Range: Minimum value of 0. Maximum value of 25.

**nextToken (p. 45)**

An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.

Pattern: \[\s]+

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "dataSources": [
    {
      "dataSourceArn": "string",
      "description": "string",
      "dynamodbConfig": {
        "awsRegion": "string",
        "tableName": "string",
        "useCallerCredentials": boolean
      },
      "elasticsearchConfig": {
        "awsRegion": "string",
        "endpoint": "string"
      },
      "lambdaConfig": {
        "lambdaFunctionArn": "string"
      },
      "name": "string",
      "serviceRoleArn": "string"
    }
  ]
```

API Version 2017-07-25
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.

dataSources (p. 45)

The DataSource objects.

Type: Array of DataSource (p. 75) objects

nextToken (p. 45)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String

Pattern: [\S]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
ListGraphqlApis

Lists your GraphQL APIs.

Request Syntax

```
GET /apis?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request requires the following URI parameters.

**maxResults (p. 48)**

The maximum number of results you want the request to return.

Valid Range: Minimum value of 0. Maximum value of 25.

**nextToken (p. 48)**

An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.

Pattern: \[\S\]+

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "graphqlApis": [
        {
            "apiId": "string",
            "arn": "string",
            "authenticationType": "string",
            "name": "string",
            "uris": {
                "string" : "string"
            },
            "userPoolConfig": {
                "appIdClientRegex": "string",
                "awsRegion": "string",
                "defaultAction": "string",
                "userPoolId": "string"
            }
        }
    ],
    "nextToken": "string"
}
```

API Version 2017-07-25
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.

**graphqlApis (p. 48)**

The GraphQL objects.

Type: Array of GraphQLApi (p. 79) objects

**nextToken (p. 48)**

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String

Pattern: [^\s]+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
• AWS SDK for Ruby V2
ListResolvers

Lists the resolvers for a given API and type.

**Request Syntax**

```
GET /apis/{apiId}/types/{typeName}/resolvers?maxResults={maxResults}&nextToken={nextToken} HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apid (p. 51)**
  - The API ID.
- **maxResults (p. 51)**
  - The maximum number of results you want the request to return.
  - Valid Range: Minimum value of 0. Maximum value of 25.
- **nextToken (p. 51)**
  - An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.
  - Pattern: \[\S\]+
- **typeName (p. 51)**
  - The type name.

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "resolvers": [
   {
      "dataSourceName": "string",
      "fieldName": "string",
      "requestMappingTemplate": "string",
      "resolverArn": "string",
      "responseMappingTemplate": "string",
      "typeName": "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 (p. 51)

An identifier to be passed in the next request to this operation to return the next set of items in the list.

Type: String

Pattern: [\S]+

resolvers (p. 51)

The Resolver objects.

Type: Array of Resolver (p. 82) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V2
ListTypes

Lists the types for a given API.

**Request Syntax**

```
GET /apis/apiId/types?format=format&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId (p. 54)**
  - The API ID.
- **format (p. 54)**
  - The type format: SDL or JSON.
    - Valid Values: SDL | JSON
- **maxResults (p. 54)**
  - The maximum number of results you want the request to return.
    - Valid Range: Minimum value of 0. Maximum value of 25.
- **nextToken (p. 54)**
  - An identifier that was returned from the previous call to this operation, which can be used to return the next set of items in the list.
    - Pattern: [\S]+

**Request Body**

The request does not have a request body.

**Response Syntax**

```
HTTP/1.1 200
Content-type: application/json

{
    "nextToken": "string",
    "types": [
    
        {  
            "arn": "string",
            "definition": "string",
            "description": "string",
            "format": "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 (p. 54)

An identifier to be passed in the next request to this operation to return the next set of items in the
list.

Type: String

Pattern: [\S]+

types (p. 54)

The Type objects.

Type: Array of Type (p. 84) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check
the field values, and try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your
change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
StartSchemaCreation

Adds a new schema to your GraphQL API.

This operation is asynchronous. Use GetSchemaCreationStatus (p. 38) to determine when it has completed.

Request Syntax

```
POST /apis/{apiId}/schemacreation HTTP/1.1
Content-type: application/json
{
  "definition": blob
}
```

URI Request Parameters

The request requires the following URI parameters.

`apiId` (p. 57)

The API ID.

Request Body

The request accepts the following data in JSON format.

`definition` (p. 57)

The schema definition, in GraphQL schema language format.

Type: Base64-encoded binary data object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
  "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.
status (p. 57)

The current state of the schema (PROCESSING, ACTIVE, or DELETING). Once the schema is in the ACTIVE state, you can add data.

Type: String

Valid Values: PROCESSING | ACTIVE | DELETING

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
UpdateDataSource

Updates a DataSource object.

**Request Syntax**

POST /apis/{apiId}/datasources/{name} HTTP/1.1
Content-type: application/json

```json
{
  "description": "string",
  "dynamodbConfig": {
    "awsRegion": "string",
    "tableName": "string",
    "useCallerCredentials": boolean
  },
  "elasticsearchConfig": {
    "awsRegion": "string",
    "endpoint": "string"
  },
  "lambdaConfig": {
    "lambdaFunctionArn": "string"
  },
  "serviceRoleArn": "string",
  "type": "string"
}
```

**URI Request Parameters**

The request requires the following URI parameters.

- **apiId (p. 60)**
  - The API ID.
- **name (p. 60)**
  - The new name for the data source.
  - Pattern: [_A-Za-z][0-9A-Za-z]*

**Request Body**

The request accepts the following data in JSON format.

- **description (p. 60)**
  - The new description for the data source.
  - Type: String
  - Required: No
- **dynamodbConfig (p. 60)**
  - The new DynamoDB configuration.
  - Type: DynamodbDataSourceConfig (p. 77) object
Required: No

**elasticsearchConfig (p. 60)**

The new Elasticsearch configuration.

Type: `ElasticsearchDataSourceConfig (p. 78)` object

Required: No

**lambdaConfig (p. 60)**

The new Lambda configuration.

Type: `LambdaDataSourceConfig (p. 81)` object

Required: No

**serviceRoleArn (p. 60)**

The new service role ARN for the data source.

Type: String

Required: No

**type (p. 60)**

The new data source type.

Type: String

Valid Values: `AWS_Lambda` | `Amazon_DynamoDB` | `Amazon_Elasticsearch`

Required: Yes

### Response Syntax

```json
HTTP/1.1 200
Content-type: application/json
{
  "dataSource": {
    "dataSourceArn": "string",
    "description": "string",
    "dynamodbConfig": {
      "awsRegion": "string",
      "tableName": "string",
      "useCallerCredentials": boolean
    },
    "elasticsearchConfig": {
      "awsRegion": "string",
      "endpoint": "string"
    },
    "lambdaConfig": {
      "lambdaFunctionArn": "string"
    },
    "name": "string",
    "serviceRoleArn": "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.

dataSource (p. 61)

The updated `DataSource` object.

Type: `DataSource (p. 75)` object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

**BadRequestException**

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

**ConcurrentModificationException**

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
See Also

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
UpdateGraphqlApi

Updates a GraphqlApi object.

Request Syntax

POST /apis/{apiId} HTTP/1.1
Content-type: application/json

{
  "authenticationType": "string",
  "name": "string",
  "userPoolConfig": {
    "appIdClientRegex": "string",
    "awsRegion": "string",
    "defaultAction": "string",
    "userPoolId": "string"
  }
}

URI Request Parameters

The request requires the following URI parameters.

apiId (p. 64)

The API ID.

Request Body

The request accepts the following data in JSON format.

authenticationType (p. 64)

The new authentication type for the GraphqlApi object.

Type: String

Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS

Required: No

name (p. 64)

The new name for the GraphqlApi object.

Type: String

Pattern: [_A-Za-z][0-9A-Za-z]*

Required: Yes

userPoolConfig (p. 64)

The new Amazon Cognito User Pool configuration for the GraphqlApi object.

Type: UserPoolConfig (p. 85) object
Response Syntax

HTTP/1.1 200
Content-type: application/json

{
  "graphqlApi": {
    "apiId": "string",
    "arn": "string",
    "authenticationType": "string",
    "name": "string",
    "uris": {
      "string": "string"
    },
    "userPoolConfig": {
      "appIdClientRegex": "string",
      "awsRegion": "string",
      "defaultAction": "string",
      "userPoolId": "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.

graphqlApi (p. 65)

The updated GraphqlApi object.

Type: GraphqlApi (p. 79) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.
HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

**UnauthorizedException**

You are not authorized to perform this operation.

HTTP Status Code: 401

**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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
UpdateResolver

Updates a Resolver object.

Request Syntax

```
POST /apis/apiId/types/typeName/resolvers/fieldName HTTP/1.1
Content-type: application/json

{
  "dataSourceName": "string",
  "requestMappingTemplate": "string",
  "responseMappingTemplate": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

**apiId (p. 67)**

The API ID.

**fieldName (p. 67)**

The new field name.

Pattern: \[A-Za-z]0-9A-Za-z]*

**typeName (p. 67)**

The new type name.

Pattern: \[A-Za-z]0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.

**dataSourceName (p. 67)**

The new data source name.

Type: String

Pattern: \[A-Za-z]0-9A-Za-z]*

Required: Yes

**requestMappingTemplate (p. 67)**

The new request mapping template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 65536.

Required: Yes
**responseMappingTemplate (p. 67)**

The new response mapping template.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 65536.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "resolver": {
    "dataSourceName": "string",
    "fieldName": "string",
    "requestMappingTemplate": "string",
    "resolverArn": "string",
    "responseMappingTemplate": "string",
    "typeName": "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.

**resolver (p. 68)**

The updated Resolver object.

Type: Resolver (p. 82) object

## Errors

For information about the errors that are common to all actions, see [Common Errors (p. 88)](https://docs.aws.amazon.com/appsync/latest/devguide/using-apis.common-errors.html).

**ConcurrentModificationException**

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

**InternalFailureException**

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

**NotFoundException**

The resource specified in the request was not found. Check the resource and try again.
HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

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
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
UpdateType

Updates a Type object.

Request Syntax

```
POST /apis/{apiId}/types/{typeName} HTTP/1.1
Content-type: application/json
{
  "definition": "string",
  "format": "string"
}
```

URI Request Parameters

The request requires the following URI parameters.

- **apiId (p. 70)**
  The API ID.
- **typeName (p. 70)**
  The new type name.
  Pattern: __A-Za-z__[0-9A-Za-z]*

Request Body

The request accepts the following data in JSON format.

- **definition (p. 70)**
  The new definition.
  Type: String
  Required: No
- **format (p. 70)**
  The new type format: SDL or JSON.
  Type: String
  Valid Values: SDL | JSON
  Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
{
```
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.

type (p. 70)

The updated Type object.

Type: Type (p. 84) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 88).

BadRequestException

The request is not well formed. For example, a value is invalid or a required field is missing. Check the field values, and try again.

HTTP Status Code: 400

ConcurrentModificationException

Another modification is being made. That modification must complete before you can make your change.

HTTP Status Code: 409

InternalFailureException

An internal AWS AppSync error occurred. Try your request again.

HTTP Status Code: 500

NotFoundException

The resource specified in the request was not found. Check the resource and try again.

HTTP Status Code: 404

UnauthorizedException

You are not authorized to perform this operation.

HTTP Status Code: 401

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V2
Data Types

The AWS AppSync 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:

- ApiKey (p. 74)
- DataSource (p. 75)
- DynamodbDataSourceConfig (p. 77)
- ElasticsearchDataSourceConfig (p. 78)
- GraphqlApi (p. 79)
- LambdaDataSourceConfig (p. 81)
- Resolver (p. 82)
- Type (p. 84)
- UserPoolConfig (p. 85)
ApiKey

Describes an API key.

Contents

description

A description of the purpose of the API key.

Type: String
Required: No

expires

The time when the API key expires.

Type: Long
Required: No

id

The API key ID.

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
**DataSource**

Describes a data source.

### Contents

**dataSourceArn**

The data source ARN.

Type: String

Required: No

**description**

The description of the data source.

Type: String

Required: No

**dynamodbConfig**

DynamoDB settings.

Type: *DynamodbDataSourceConfig (p. 77)* object

Required: No

**elasticsearchConfig**

Amazon Elasticsearch settings.

Type: *ElasticsearchDataSourceConfig (p. 78)* object

Required: No

**lambdaConfig**

Lambda settings.

Type: *LambdaDataSourceConfig (p. 81)* object

Required: No

**name**

The name of the data source.

Type: String

Pattern: `[_A-Za-z][_0-9A-Za-z]*`

Required: No

**serviceRoleArn**

The IAM service role ARN for the data source. The system assumes this role when accessing the data source.

Type: String

Required: No
**type**

The type of the data source.

Type: String

Valid Values: AWS_LAMBDA | AMAZON_DYNAMODB | AMAZON_ELASTICSEARCH

Required: No

**See Also**

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
DynamodbDataSourceConfig

Describes a DynamoDB data source configuration.

Contents

awsRegion

The AWS region.
Type: String
Required: Yes

tableName

The table name.
Type: String
Required: Yes

useCallerCredentials

Set to TRUE to use Amazon Cognito credentials with this data source.
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
ElasticsearchDataSourceConfig

Describes an Elasticsearch data source configuration.

Contents

awsRegion

The AWS region.
Type: String
Required: Yes

endpoint

The endpoint.
Type: String
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
GraphqlApi

Describes a GraphQL API.

Contents

apilid
  The API ID.
  Type: String
  Required: No

arn
  The ARN.
  Type: String
  Required: No

authenticationType
  The authentication type.
  Type: String
  Valid Values: API_KEY | AWS_IAM | AMAZON_COGNITO_USER_POOLS
  Required: No

name
  The API name.
  Type: String
  Pattern: [\_A-Za-z][\_0-9A-Za-z]*
  Required: No

uris
  The URIs.
  Type: String to string map
  Required: No

userPoolConfig
  The Amazon Cognito User Pool configuration.
  Type: UserPoolConfig (p. 85) object
  Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
LambdaDataSourceConfig

Describes a Lambda data source configuration.

Contents

lambdaFunctionArn

The ARN for the Lambda function.

Type: String

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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
Resolver

Describes a resolver.

Contents

dataSourceName

The resolver data source name.
Type: String
Pattern: [_A-Za-z][_0-9A-Za-z]*
Required: No

fieldName

The resolver field name.
Type: String
Pattern: [_A-Za-z][_0-9A-Za-z]*
Required: No

requestMappingTemplate

The request mapping template.
Type: String
Length Constraints: Minimum length of 0. Maximum length of 65536.
Required: No

resolverArn

The resolver ARN.
Type: String
Required: No

responseMappingTemplate

The response mapping template.
Type: String
Length Constraints: Minimum length of 0. Maximum length of 65536.
Required: No

typeName

The resolver type name.
Type: String
Pattern: [_A-Za-z][_0-9A-Za-z]*
Required: No
See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
Type

Describes a type.

Contents

arn

The type ARN.

Type: String

Required: No

definition

The type definition.

Type: String

Required: No
description

The type description.

Type: String

Required: No

format

The type format: SDL or JSON.

Type: String

Valid Values: SDL | JSON

Required: No

name

The type name.

Type: String

Pattern: \[A-Za-z][0-9A-Za-z]*

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V2
UserPoolConfig

Describes an Amazon Cognito User Pool configuration.

Contents

appIdClientRegex

A regular expression for validating the incoming Amazon Cognito User Pool app client ID.

Type: String
Required: No

awsRegion

The AWS region in which the user pool was created.

Type: String
Required: Yes

defaultAction

The action that you want your GraphQL API to take when a request that uses Amazon Cognito User Pool authentication doesn't match the Amazon Cognito User Pool configuration.

Type: String
Valid Values: ALLOW | DENY
Required: Yes

userPoolId

The user pool ID.

Type: String
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 Go
- AWS SDK for Java
- AWS SDK for Ruby V2
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 Signature Version 4 Signing Process in the Amazon Web Services General Reference.

**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 Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.

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 Handling Dates in Signature Version 4 in the Amazon Web Services General Reference.

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 Security Token Service, go to AWS Services That Work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 Task 1: Create a Canonical Request For Signature Version 4 in the Amazon Web Services General Reference.

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

InvalidParameterCombination
Parameters that must not be used together were used together.
HTTP Status Code: 400

InvalidParameterValue
An invalid or out-of-range value was supplied for the input parameter.
HTTP Status Code: 400

InvalidQueryParameter
The AWS query string is malformed or does not adhere to AWS standards.
HTTP Status Code: 400

MalformedQueryString
The query string contains a syntax error.
HTTP Status Code: 404

MissingAction
The request is missing an action or a required parameter.
HTTP Status Code: 400
MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

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