aws

API Reference

Amazon Comprehend Medical

API Version 2018-10-30

Amazon Comprehend Medical: API Reference

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Welcome

This is the *Amazon Comprehend Medical API Reference.* Amazon Comprehend Medical extracts structured information from unstructured clinical text. For an introduction to the service, see the *Amazon Comprehend Medical Developer Guide*.

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Actions

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DescribeEntitiesDetectionV2Job

Gets the properties associated with a medical entities detection job. Use this operation to get the status of a detection job.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier that Comprehend Medical; generated for the job. The `StartEntitiesDetectionV2Job` operation returns this identifier in its response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

Response Syntax

```
{
    "ComprehendMedicalAsyncJobProperties": {
        "DataAccessRoleArn": "string",
        "EndTime": number,
        "ExpirationTime": number,
        "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
```

```
        },
        "JobId": "string",
        "JobName": "string",
        "JobStatus": "string",
        "KMSKey": "string",
        "LanguageCode": "string",
        "ManifestFilePath": "string",
        "Message": "string",
        "ModelVersion": "string",
        "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
        },
        "SubmitTime": 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.

ComprehendMedicalAsyncJobProperties

An object that contains the properties associated with a detection job.

Type: ComprehendMedicalAsyncJobProperties object

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeICD10CMInferenceJob

Gets the properties associated with an InferICD10CM job. Use this operation to get the status of an inference job.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier that Amazon Comprehend Medical generated for the job. The StartICD10CMInferenceJob operation returns this identifier in its response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Required: Yes

Response Syntax

```
{
    "ComprehendMedicalAsyncJobProperties": {
        "DataAccessRoleArn": "string",
        "EndTime": number,
        "ExpirationTime": number,
        "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
```

```
        },
        "JobId": "string",
        "JobName": "string",
        "JobStatus": "string",
        "KMSKey": "string",
        "LanguageCode": "string",
        "ManifestFilePath": "string",
        "Message": "string",
        "ModelVersion": "string",
        "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
        },
        "SubmitTime": 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.

ComprehendMedicalAsyncJobProperties

An object that contains the properties associated with a detection job.

Type: ComprehendMedicalAsyncJobProperties object

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

See Also

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

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

DescribePHIDetectionJob

Gets the properties associated with a protected health information (PHI) detection job. Use this operation to get the status of a detection job.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier that Comprehend Medical; generated for the job. The StartPHIDetectionJob operation returns this identifier in its response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Required: Yes

Response Syntax

```
{
    "ComprehendMedicalAsyncJobProperties": {
        "DataAccessRoleArn": "string",
        "EndTime": number,
        "ExpirationTime": number,
        "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
```

```
        },
        "JobId": "string",
        "JobName": "string",
        "JobStatus": "string",
        "KMSKey": "string",
        "LanguageCode": "string",
        "ManifestFilePath": "string",
        "Message": "string",
        "ModelVersion": "string",
        "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
        },
        "SubmitTime": 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.

ComprehendMedicalAsyncJobProperties

An object that contains the properties associated with a detection job.

Type: ComprehendMedicalAsyncJobProperties object

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

See Also

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

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

DescribeRxNormInferenceJob

Gets the properties associated with an InferRxNorm job. Use this operation to get the status of an inference job.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier that Amazon Comprehend Medical generated for the job. The StartRxNormInferenceJob operation returns this identifier in its response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

Response Syntax

```
{
    "ComprehendMedicalAsyncJobProperties": {
        "DataAccessRoleArn": "string",
        "EndTime": number,
        "ExpirationTime": number,
        "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
```

```
        },
        "JobId": "string",
        "JobName": "string",
        "JobStatus": "string",
        "KMSKey": "string",
        "LanguageCode": "string",
        "ManifestFilePath": "string",
        "Message": "string",
        "ModelVersion": "string",
        "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
        },
        "SubmitTime": 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.

ComprehendMedicalAsyncJobProperties

An object that contains the properties associated with a detection job.

Type: ComprehendMedicalAsyncJobProperties object

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

See Also

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

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DescribeSNOMEDCTInferenceJob

Gets the properties associated with an InferSNOMEDCT job. Use this operation to get the status of an inference job.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier that Amazon Comprehend Medical generated for the job. The StartSNOMEDCTInferenceJob operation returns this identifier in its response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

Response Syntax

```
{
    "ComprehendMedicalAsyncJobProperties": {
        "DataAccessRoleArn": "string",
        "EndTime": number,
        "ExpirationTime": number,
        "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
```

```
        },
        "JobId": "string",
        "JobName": "string",
        "JobStatus": "string",
        "KMSKey": "string",
        "LanguageCode": "string",
        "ManifestFilePath": "string",
        "Message": "string",
        "ModelVersion": "string",
        "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
        },
        "SubmitTime": 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.

ComprehendMedicalAsyncJobProperties

Provides information about a detection job.

Type: ComprehendMedicalAsyncJobProperties object

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
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- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DetectEntities

The `DetectEntities` operation is deprecated. You should use the [DetectEntitiesV2](#) operation instead.

Inspects the clinical text for a variety of medical entities and returns specific information about them such as entity category, location, and confidence score on that information .

Request Syntax

```
{
   "Text": "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.

[Text](#)

A UTF-8 text string containing the clinical content being examined for entities. Each string must contain fewer than 20,000 bytes of characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20000.

Required: Yes

Response Syntax

```
{
   "Entities": [
      {
         "Attributes": [
            {
               "BeginOffset": number,
               "Category": "string",
               "EndOffset": number,
```

```
               "Id": number,
               "RelationshipScore": number,
               "RelationshipType": "string",
               "Score": number,
               "Text": "string",
               "Traits": [
                  {
                     "Name": "string",
                     "Score": number
                  }
               ],
               "Type": "string"
            }
         ],
         "BeginOffset": number,
         "Category": "string",
         "EndOffset": number,
         "Id": number,
         "Score": number,
         "Text": "string",
         "Traits": [
            {
               "Name": "string",
               "Score": number
            }
         ],
         "Type": "string"
      }
   ],
   "ModelVersion": "string",
   "PaginationToken": "string",
   "UnmappedAttributes": [
      {
         "Attribute": {
            "BeginOffset": number,
            "Category": "string",
            "EndOffset": number,
            "Id": number,
            "RelationshipScore": number,
            "RelationshipType": "string",
            "Score": number,
            "Text": "string",
            "Traits": [
               {
```

```
                    "Name": "string",
                    "Score": number
                }
            ],
            "Type": "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.

Entities

> The collection of medical entities extracted from the input text and their associated information. For each entity, the response provides the entity text, the entity category, where the entity text begins and ends, and the level of confidence that Comprehend Medical; has in the detection and analysis. Attributes and traits of the entity are also returned.
>
> Type: Array of Entity objects

ModelVersion

> The version of the model used to analyze the documents. The version number looks like X.X.X. You can use this information to track the model used for a particular batch of documents.
>
> Type: String
>
> Length Constraints: Minimum length of 1.

PaginationToken

> If the result of the previous request to `DetectEntities` was truncated, include the `PaginationToken` to fetch the next page of entities.
>
> Type: String
>
> Length Constraints: Minimum length of 1.

UnmappedAttributes

Attributes extracted from the input text that we were unable to relate to an entity.

Type: Array of UnmappedAttribute objects

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidEncodingException

The input text was not in valid UTF-8 character encoding. Check your text then retry your request.

HTTP Status Code: 400

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ServiceUnavailableException

The Comprehend Medical; service is temporarily unavailable. Please wait and then retry your request.

HTTP Status Code: 400

TextSizeLimitExceededException

The size of the text you submitted exceeds the size limit. Reduce the size of the text or use a smaller document and then retry your request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DetectEntitiesV2

Inspects the clinical text for a variety of medical entities and returns specific information about them such as entity category, location, and confidence score on that information. Amazon Comprehend Medical only detects medical entities in English language texts.

The `DetectEntitiesV2` operation replaces the [DetectEntities](#) operation. This new action uses a different model for determining the entities in your medical text and changes the way that some entities are returned in the output. You should use the `DetectEntitiesV2` operation in all new applications.

The `DetectEntitiesV2` operation returns the `Acuity` and `Direction` entities as attributes instead of types.

Request Syntax

```
{
    "Text": "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.

Text

> A UTF-8 string containing the clinical content being examined for entities. Each string must contain fewer than 20,000 bytes of characters.
>
> Type: String
>
> Length Constraints: Minimum length of 1. Maximum length of 20000.
>
> Required: Yes

Response Syntax

```
{
    "Entities": [
```

```
{
    "Attributes": [
        {
            "BeginOffset": number,
            "Category": "string",
            "EndOffset": number,
            "Id": number,
            "RelationshipScore": number,
            "RelationshipType": "string",
            "Score": number,
            "Text": "string",
            "Traits": [
                {
                    "Name": "string",
                    "Score": number
                }
            ],
            "Type": "string"
        }
    ],
    "BeginOffset": number,
    "Category": "string",
    "EndOffset": number,
    "Id": number,
    "Score": number,
    "Text": "string",
    "Traits": [
        {
            "Name": "string",
            "Score": number
        }
    ],
    "Type": "string"
    }
],
"ModelVersion": "string",
"PaginationToken": "string",
"UnmappedAttributes": [
    {
        "Attribute": {
            "BeginOffset": number,
            "Category": "string",
            "EndOffset": number,
            "Id": number,
```

```
            "RelationshipScore": number,
            "RelationshipType": "string",
            "Score": number,
            "Text": "string",
            "Traits": [
               {
                  "Name": "string",
                  "Score": number
               }
            ],
            "Type": "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.

Entities

> The collection of medical entities extracted from the input text and their associated
> information. For each entity, the response provides the entity text, the entity category, where
> the entity text begins and ends, and the level of confidence in the detection and analysis.
> Attributes and traits of the entity are also returned.

> Type: Array of Entity objects

ModelVersion

> The version of the model used to analyze the documents. The version number looks like X.X.X.
> You can use this information to track the model used for a particular batch of documents.

> Type: String

> Length Constraints: Minimum length of 1.

PaginationToken

If the result to the `DetectEntitiesV2` operation was truncated, include the `PaginationToken` to fetch the next page of entities.

Type: String

Length Constraints: Minimum length of 1.

UnmappedAttributes

Attributes extracted from the input text that couldn't be related to an entity.

Type: Array of UnmappedAttribute objects

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidEncodingException

The input text was not in valid UTF-8 character encoding. Check your text then retry your request.

HTTP Status Code: 400

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ServiceUnavailableException

The Comprehend Medical; service is temporarily unavailable. Please wait and then retry your request.

HTTP Status Code: 400

TextSizeLimitExceededException

The size of the text you submitted exceeds the size limit. Reduce the size of the text or use a smaller document and then retry your request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

See Also

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

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- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DetectPHI

Inspects the clinical text for protected health information (PHI) entities and returns the entity category, location, and confidence score for each entity. Amazon Comprehend Medical only detects entities in English language texts.

Request Syntax

```
{
    "Text": "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.

Text

A UTF-8 text string containing the clinical content being examined for PHI entities. Each string must contain fewer than 20,000 bytes of characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20000.

Required: Yes

Response Syntax

```
{
    "Entities": [
        {
            "Attributes": [
                {
                    "BeginOffset": number,
                    "Category": "string",
                    "EndOffset": number,
                    "Id": number,
```

```
                    "RelationshipScore": number,
                    "RelationshipType": "string",
                    "Score": number,
                    "Text": "string",
                    "Traits": [
                        {
                            "Name": "string",
                            "Score": number
                        }
                    ],
                    "Type": "string"
                }
            ],
            "BeginOffset": number,
            "Category": "string",
            "EndOffset": number,
            "Id": number,
            "Score": number,
            "Text": "string",
            "Traits": [
                {
                    "Name": "string",
                    "Score": number
                }
            ],
            "Type": "string"
        }
    ],
    "ModelVersion": "string",
    "PaginationToken": "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.

Entities

    The collection of PHI entities extracted from the input text and their associated information. For each entity, the response provides the entity text, the entity category, where the entity text begins and ends, and the level of confidence that Comprehend Medical; has in its detection.

Type: Array of [Entity](#) objects

ModelVersion

The version of the model used to analyze the documents. The version number looks like X.X.X. You can use this information to track the model used for a particular batch of documents.

Type: String

Length Constraints: Minimum length of 1.

PaginationToken

If the result of the previous request to `DetectPHI` was truncated, include the `PaginationToken` to fetch the next page of PHI entities.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidEncodingException

The input text was not in valid UTF-8 character encoding. Check your text then retry your request.

HTTP Status Code: 400

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ServiceUnavailableException

The Comprehend Medical; service is temporarily unavailable. Please wait and then retry your request.

HTTP Status Code: 400

TextSizeLimitExceededException

The size of the text you submitted exceeds the size limit. Reduce the size of the text or use a smaller document and then retry your request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

InferICD10CM

InferICD10CM detects medical conditions as entities listed in a patient record and links those entities to normalized concept identifiers in the ICD-10-CM knowledge base from the Centers for Disease Control. Amazon Comprehend Medical only detects medical entities in English language texts.

Request Syntax

```
{
    "Text": "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.

Text

The input text used for analysis. The input for InferICD10CM is a string from 1 to 10000 characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: Yes

Response Syntax

```
{
    "Entities": [
        {
            "Attributes": [
                {
                    "BeginOffset": number,
                    "Category": "string",
                    "EndOffset": number,
```

```
                  "Id": number,
                  "RelationshipScore": number,
                  "RelationshipType": "string",
                  "Score": number,
                  "Text": "string",
                  "Traits": [
                     {
                        "Name": "string",
                        "Score": number
                     }
                  ],
                  "Type": "string"
               }
            ],
            "BeginOffset": number,
            "Category": "string",
            "EndOffset": number,
            "ICD10CMConcepts": [
               {
                  "Code": "string",
                  "Description": "string",
                  "Score": number
               }
            ],
            "Id": number,
            "Score": number,
            "Text": "string",
            "Traits": [
               {
                  "Name": "string",
                  "Score": number
               }
            ],
            "Type": "string"
         }
      ],
      "ModelVersion": "string",
      "PaginationToken": "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.

Entities

The medical conditions detected in the text linked to ICD-10-CM concepts. If the action is successful, the service sends back an HTTP 200 response, as well as the entities detected.

Type: Array of ICD10CMEntity objects

ModelVersion

The version of the model used to analyze the documents, in the format *n.n.n* You can use this information to track the model used for a particular batch of documents.

Type: String

Length Constraints: Minimum length of 1.

PaginationToken

If the result of the previous request to `InferICD10CM` was truncated, include the `PaginationToken` to fetch the next page of medical condition entities.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidEncodingException

The input text was not in valid UTF-8 character encoding. Check your text then retry your request.

HTTP Status Code: 400

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ServiceUnavailableException

The Comprehend Medical; service is temporarily unavailable. Please wait and then retry your request.

HTTP Status Code: 400

TextSizeLimitExceededException

The size of the text you submitted exceeds the size limit. Reduce the size of the text or use a smaller document and then retry your request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)

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

InferRxNorm

InferRxNorm detects medications as entities listed in a patient record and links to the normalized concept identifiers in the RxNorm database from the National Library of Medicine. Amazon Comprehend Medical only detects medical entities in English language texts.

Request Syntax

```
{
    "Text": "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.

Text

The input text used for analysis. The input for InferRxNorm is a string from 1 to 10000 characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: Yes

Response Syntax

```
{
    "Entities": [
        {
            "Attributes": [
                {
                    "BeginOffset": number,
                    "EndOffset": number,
                    "Id": number,
```

```
                   "RelationshipScore": number,
                   "Score": number,
                   "Text": "string",
                   "Traits": [
                      {
                         "Name": "string",
                         "Score": number
                      }
                   ],
                   "Type": "string"
                }
             ],
             "BeginOffset": number,
             "Category": "string",
             "EndOffset": number,
             "Id": number,
             "RxNormConcepts": [
                {
                   "Code": "string",
                   "Description": "string",
                   "Score": number
                }
             ],
             "Score": number,
             "Text": "string",
             "Traits": [
                {
                   "Name": "string",
                   "Score": number
                }
             ],
             "Type": "string"
          }
       ],
       "ModelVersion": "string",
       "PaginationToken": "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.

Entities

The medication entities detected in the text linked to RxNorm concepts. If the action is successful, the service sends back an HTTP 200 response, as well as the entities detected.

Type: Array of RxNormEntity objects

ModelVersion

The version of the model used to analyze the documents, in the format *n.n.n* You can use this information to track the model used for a particular batch of documents.

Type: String

Length Constraints: Minimum length of 1.

PaginationToken

If the result of the previous request to `InferRxNorm` was truncated, include the `PaginationToken` to fetch the next page of medication entities.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidEncodingException

The input text was not in valid UTF-8 character encoding. Check your text then retry your request.

HTTP Status Code: 400

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ServiceUnavailableException

The Comprehend Medical; service is temporarily unavailable. Please wait and then retry your request.

HTTP Status Code: 400

TextSizeLimitExceededException

The size of the text you submitted exceeds the size limit. Reduce the size of the text or use a smaller document and then retry your request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

InferSNOMEDCT

InferSNOMEDCT detects possible medical concepts as entities and links them to codes from the Systematized Nomenclature of Medicine, Clinical Terms (SNOMED-CT) ontology.

Request Syntax

```
{
    "Text": "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.

Text

The input text to be analyzed using InferSNOMEDCT. The text must be a string with 1 to 10000 characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: Yes

Response Syntax

```
{
    "Characters": {
        "OriginalTextCharacters": number
    },
    "Entities": [
        {
            "Attributes": [
                {
                    "BeginOffset": number,
                    "Category": "string",
                    "EndOffset": number,
```

```
            "Id": number,
            "RelationshipScore": number,
            "RelationshipType": "string",
            "Score": number,
            "SNOMEDCTConcepts": [
               {
                  "Code": "string",
                  "Description": "string",
                  "Score": number
               }
            ],
            "Text": "string",
            "Traits": [
               {
                  "Name": "string",
                  "Score": number
               }
            ],
            "Type": "string"
         }
      ],
      "BeginOffset": number,
      "Category": "string",
      "EndOffset": number,
      "Id": number,
      "Score": number,
      "SNOMEDCTConcepts": [
         {
            "Code": "string",
            "Description": "string",
            "Score": number
         }
      ],
      "Text": "string",
      "Traits": [
         {
            "Name": "string",
            "Score": number
         }
      ],
      "Type": "string"
   }
   ],
   "ModelVersion": "string",
```

```
      "PaginationToken": "string",
      "SNOMEDCTDetails": {
         "Edition": "string",
         "Language": "string",
         "VersionDate": "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.

Characters

The number of characters in the input request documentation.

Type: Characters object

Entities

The collection of medical concept entities extracted from the input text and their associated information. For each entity, the response provides the entity text, the entity category, where the entity text begins and ends, and the level of confidence that Comprehend Medical has in the detection and analysis. Attributes and traits of the entity are also returned.

Type: Array of SNOMEDCTEntity objects

ModelVersion

The version of the model used to analyze the documents; must be in the format of n.n.n. You can use this information to track the model used for a particular batch of documents.

Type: String

Length Constraints: Minimum length of 1.

PaginationToken

If the result of the request is truncated, the pagination token can be used to fetch the next page of entities.

Type: String

Length Constraints: Minimum length of 1.

SNOMEDCTDetails

The details of the SNOMED-CT revision, including the edition, language, and version date.

Type: SNOMEDCTDetails object

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidEncodingException

The input text was not in valid UTF-8 character encoding. Check your text then retry your request.

HTTP Status Code: 400

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ServiceUnavailableException

The Comprehend Medical; service is temporarily unavailable. Please wait and then retry your request.

HTTP Status Code: 400

TextSizeLimitExceededException

The size of the text you submitted exceeds the size limit. Reduce the size of the text or use a smaller document and then retry your request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListEntitiesDetectionV2Jobs

Gets a list of medical entity detection jobs that you have submitted.

Request Syntax

```
{
   "Filter": {
      "JobName": "string",
      "JobStatus": "string",
      "SubmitTimeAfter": number,
      "SubmitTimeBefore": 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

Filters the jobs that are returned. You can filter jobs based on their names, status, or the date and time that they were submitted. You can only set one filter at a time.

Type: ComprehendMedicalAsyncJobFilter object

Required: No

MaxResults

The maximum number of results to return in each page. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "ComprehendMedicalAsyncJobPropertiesList": [
        {
            "DataAccessRoleArn": "string",
            "EndTime": number,
            "ExpirationTime": number,
            "InputDataConfig": {
                "S3Bucket": "string",
                "S3Key": "string"
            },
            "JobId": "string",
            "JobName": "string",
            "JobStatus": "string",
            "KMSKey": "string",
            "LanguageCode": "string",
            "ManifestFilePath": "string",
            "Message": "string",
            "ModelVersion": "string",
            "OutputDataConfig": {
                "S3Bucket": "string",
                "S3Key": "string"
            },
            "SubmitTime": 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.

ComprehendMedicalAsyncJobPropertiesList

A list containing the properties of each job returned.

Type: Array of ComprehendMedicalAsyncJobProperties objects

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

ValidationException

The filter that you specified for the operation is invalid. Check the filter values that you entered and try your request again.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListICD10CMInferenceJobs

Gets a list of InferICD10CM jobs that you have submitted.

Request Syntax

```
{
   "Filter": {
      "JobName": "string",
      "JobStatus": "string",
      "SubmitTimeAfter": number,
      "SubmitTimeBefore": 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

Filters the jobs that are returned. You can filter jobs based on their names, status, or the date and time that they were submitted. You can only set one filter at a time.

Type: ComprehendMedicalAsyncJobFilter object

Required: No

MaxResults

The maximum number of results to return in each page. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
   "ComprehendMedicalAsyncJobPropertiesList": [
      {
         "DataAccessRoleArn": "string",
         "EndTime": number,
         "ExpirationTime": number,
         "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
         },
         "JobId": "string",
         "JobName": "string",
         "JobStatus": "string",
         "KMSKey": "string",
         "LanguageCode": "string",
         "ManifestFilePath": "string",
         "Message": "string",
         "ModelVersion": "string",
         "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
         },
         "SubmitTime": 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.

ComprehendMedicalAsyncJobPropertiesList

A list containing the properties of each job that is returned.

Type: Array of ComprehendMedicalAsyncJobProperties objects

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

ValidationException

The filter that you specified for the operation is invalid. Check the filter values that you entered and try your request again.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListPHIDetectionJobs

Gets a list of protected health information (PHI) detection jobs that you have submitted.

Request Syntax

```
{
    "Filter": {
        "JobName": "string",
        "JobStatus": "string",
        "SubmitTimeAfter": number,
        "SubmitTimeBefore": 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

Filters the jobs that are returned. You can filter jobs based on their names, status, or the date and time that they were submitted. You can only set one filter at a time.

Type: ComprehendMedicalAsyncJobFilter object

Required: No

MaxResults

The maximum number of results to return in each page. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "ComprehendMedicalAsyncJobPropertiesList": [
        {
            "DataAccessRoleArn": "string",
            "EndTime": number,
            "ExpirationTime": number,
            "InputDataConfig": {
                "S3Bucket": "string",
                "S3Key": "string"
            },
            "JobId": "string",
            "JobName": "string",
            "JobStatus": "string",
            "KMSKey": "string",
            "LanguageCode": "string",
            "ManifestFilePath": "string",
            "Message": "string",
            "ModelVersion": "string",
            "OutputDataConfig": {
                "S3Bucket": "string",
                "S3Key": "string"
            },
            "SubmitTime": 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.

ComprehendMedicalAsyncJobPropertiesList

A list containing the properties of each job returned.

Type: Array of ComprehendMedicalAsyncJobProperties objects

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

ValidationException

The filter that you specified for the operation is invalid. Check the filter values that you entered and try your request again.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListRxNormInferenceJobs

Gets a list of InferRxNorm jobs that you have submitted.

Request Syntax

```
{
   "Filter": {
      "JobName": "string",
      "JobStatus": "string",
      "SubmitTimeAfter": number,
      "SubmitTimeBefore": 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

Filters the jobs that are returned. You can filter jobs based on their names, status, or the date and time that they were submitted. You can only set one filter at a time.

Type: ComprehendMedicalAsyncJobFilter object

Required: No

MaxResults

Identifies the next page of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
   "ComprehendMedicalAsyncJobPropertiesList": [
      {
         "DataAccessRoleArn": "string",
         "EndTime": number,
         "ExpirationTime": number,
         "InputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
         },
         "JobId": "string",
         "JobName": "string",
         "JobStatus": "string",
         "KMSKey": "string",
         "LanguageCode": "string",
         "ManifestFilePath": "string",
         "Message": "string",
         "ModelVersion": "string",
         "OutputDataConfig": {
            "S3Bucket": "string",
            "S3Key": "string"
         },
         "SubmitTime": 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.

ComprehendMedicalAsyncJobPropertiesList

The maximum number of results to return in each page. The default is 100.

Type: Array of ComprehendMedicalAsyncJobProperties objects

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

ValidationException

The filter that you specified for the operation is invalid. Check the filter values that you entered and try your request again.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListSNOMEDCTInferenceJobs

Gets a list of InferSNOMEDCT jobs a user has submitted.

Request Syntax

```
{
    "Filter": {
        "JobName": "string",
        "JobStatus": "string",
        "SubmitTimeAfter": number,
        "SubmitTimeBefore": 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

Provides information for filtering a list of detection jobs.

Type: ComprehendMedicalAsyncJobFilter object

Required: No

MaxResults

The maximum number of results to return in each page. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

Identifies the next page of InferSNOMEDCT results to return.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
    "ComprehendMedicalAsyncJobPropertiesList": [
        {
            "DataAccessRoleArn": "string",
            "EndTime": number,
            "ExpirationTime": number,
            "InputDataConfig": {
                "S3Bucket": "string",
                "S3Key": "string"
            },
            "JobId": "string",
            "JobName": "string",
            "JobStatus": "string",
            "KMSKey": "string",
            "LanguageCode": "string",
            "ManifestFilePath": "string",
            "Message": "string",
            "ModelVersion": "string",
            "OutputDataConfig": {
                "S3Bucket": "string",
                "S3Key": "string"
            },
            "SubmitTime": 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.

ComprehendMedicalAsyncJobPropertiesList

A list containing the properties of each job that is returned.

Type: Array of ComprehendMedicalAsyncJobProperties objects

NextToken

Identifies the next page of results to return.

Type: String

Length Constraints: Minimum length of 1.

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

HTTP Status Code: 400

ValidationException

The filter that you specified for the operation is invalid. Check the filter values that you entered and try your request again.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StartEntitiesDetectionV2Job

Starts an asynchronous medical entity detection job for a collection of documents. Use the `DescribeEntitiesDetectionV2Job` operation to track the status of a job.

Request Syntax

```
{
    "ClientRequestToken": "string",
    "DataAccessRoleArn": "string",
    "InputDataConfig": {
        "S3Bucket": "string",
        "S3Key": "string"
    },
    "JobName": "string",
    "KMSKey": "string",
    "LanguageCode": "string",
    "OutputDataConfig": {
        "S3Bucket": "string",
        "S3Key": "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.

ClientRequestToken

A unique identifier for the request. If you don't set the client request token, Comprehend Medical; generates one for you.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9-]+$

Required: No

DataAccessRoleArn

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that grants Comprehend Medical; read access to your input data. For more information, see Role-Based Permissions Required for Asynchronous Operations.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: Yes

InputDataConfig

The input configuration that specifies the format and location of the input data for the job.

Type: InputDataConfig object

Required: Yes

JobName

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

KMSKey

An AWS Key Management Service key to encrypt your output files. If you do not specify a key, the files are written in plain text.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `.*`

Required: No

LanguageCode

The language of the input documents. All documents must be in the same language. Comprehend Medical; processes files in US English (en).

Type: String

Valid Values: en

Required: Yes

OutputDataConfig

The output configuration that specifies where to send the output files.

Type: OutputDataConfig object

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of a job, use this identifier with the `DescribeEntitiesDetectionV2Job` operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2
- [AWS SDK for .NET V4](AWS SDK for .NET V4)
- [AWS SDK for C++](AWS SDK for C++)
- [AWS SDK for Go v2](AWS SDK for Go v2)
- AWS SDK for Java V2

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

StartICD10CMInferenceJob

Starts an asynchronous job to detect medical conditions and link them to the ICD-10-CM ontology. Use the `DescribeICD10CMInferenceJob` operation to track the status of a job.

Request Syntax

```
{
    "ClientRequestToken": "string",
    "DataAccessRoleArn": "string",
    "InputDataConfig": {
        "S3Bucket": "string",
        "S3Key": "string"
    },
    "JobName": "string",
    "KMSKey": "string",
    "LanguageCode": "string",
    "OutputDataConfig": {
        "S3Bucket": "string",
        "S3Key": "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.

ClientRequestToken

A unique identifier for the request. If you don't set the client request token, Comprehend Medical; generates one.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9-]+$

Required: No

DataAccessRoleArn

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that grants Comprehend Medical; read access to your input data. For more information, see Role-Based Permissions Required for Asynchronous Operations.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: Yes

InputDataConfig

Specifies the format and location of the input data for the job.

Type: InputDataConfig object

Required: Yes

JobName

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

KMSKey

An AWS Key Management Service key to encrypt your output files. If you do not specify a key, the files are written in plain text.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `.*`

Required: No

LanguageCode

The language of the input documents. All documents must be in the same language.

Type: String

Valid Values: en

Required: Yes

OutputDataConfig

Specifies where to send the output files.

Type: OutputDataConfig object

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of a job, use this identifier with the `StartICD10CMInferenceJob` operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

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

StartPHIDetectionJob

Starts an asynchronous job to detect protected health information (PHI). Use the
`DescribePHIDetectionJob` operation to track the status of a job.

Request Syntax

```
{
   "ClientRequestToken": "string",
   "DataAccessRoleArn": "string",
   "InputDataConfig": {
      "S3Bucket": "string",
      "S3Key": "string"
   },
   "JobName": "string",
   "KMSKey": "string",
   "LanguageCode": "string",
   "OutputDataConfig": {
      "S3Bucket": "string",
      "S3Key": "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.

ClientRequestToken

A unique identifier for the request. If you don't set the client request token, Comprehend
Medical; generates one.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9-]+$

Required: No

DataAccessRoleArn

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that grants Comprehend Medical; read access to your input data. For more information, see Role-Based Permissions Required for Asynchronous Operations.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: Yes

InputDataConfig

Specifies the format and location of the input data for the job.

Type: InputDataConfig object

Required: Yes

JobName

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

KMSKey

An AWS Key Management Service key to encrypt your output files. If you do not specify a key, the files are written in plain text.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `.*`

Required: No

LanguageCode

The language of the input documents. All documents must be in the same language.

Type: String

Valid Values: en

Required: Yes

OutputDataConfig

Specifies where to send the output files.

Type: OutputDataConfig object

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of a job, use this identifier with the `DescribePHIDetectionJob` operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

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

StartRxNormInferenceJob

Starts an asynchronous job to detect medication entities and link them to the RxNorm ontology. Use the `DescribeRxNormInferenceJob` operation to track the status of a job.

Request Syntax

```
{
   "ClientRequestToken": "string",
   "DataAccessRoleArn": "string",
   "InputDataConfig": {
      "S3Bucket": "string",
      "S3Key": "string"
   },
   "JobName": "string",
   "KMSKey": "string",
   "LanguageCode": "string",
   "OutputDataConfig": {
      "S3Bucket": "string",
      "S3Key": "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.

ClientRequestToken

A unique identifier for the request. If you don't set the client request token, Comprehend Medical; generates one.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9-]+$

Required: No

DataAccessRoleArn

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that grants Comprehend Medical; read access to your input data. For more information, see Role-Based Permissions Required for Asynchronous Operations.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: Yes

InputDataConfig

Specifies the format and location of the input data for the job.

Type: InputDataConfig object

Required: Yes

JobName

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

KMSKey

An AWS Key Management Service key to encrypt your output files. If you do not specify a key, the files are written in plain text.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `.*`

Required: No

LanguageCode

The language of the input documents. All documents must be in the same language.

Type: String

Valid Values: en

Required: Yes

OutputDataConfig

Specifies where to send the output files.

Type: OutputDataConfig object

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

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

StartSNOMEDCTInferenceJob

Starts an asynchronous job to detect medical concepts and link them to the SNOMED-CT ontology. Use the DescribeSNOMEDCTInferenceJob operation to track the status of a job.

Request Syntax

```
{
   "ClientRequestToken": "string",
   "DataAccessRoleArn": "string",
   "InputDataConfig": {
      "S3Bucket": "string",
      "S3Key": "string"
   },
   "JobName": "string",
   "KMSKey": "string",
   "LanguageCode": "string",
   "OutputDataConfig": {
      "S3Bucket": "string",
      "S3Key": "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.

ClientRequestToken

A unique identifier for the request. If you don't set the client request token, Amazon Comprehend Medical generates one.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9-]+$

Required: No

DataAccessRoleArn

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that grants Amazon Comprehend Medical read access to your input data.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: Yes

InputDataConfig

The input properties for an entities detection job. This includes the name of the S3 bucket and the path to the files to be analyzed.

Type: InputDataConfig object

Required: Yes

JobName

The user generated name the asynchronous InferSNOMEDCT job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

KMSKey

An AWS Key Management Service key used to encrypt your output files. If you do not specify a key, the files are written in plain text.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `.*`

Required: No

LanguageCode

The language of the input documents. All documents must be in the same language.

Type: String

Valid Values: en

Required: Yes

OutputDataConfig

The output properties for a detection job.

Type: OutputDataConfig object

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of a job, use this identifier with the StartSNOMEDCTInferenceJob operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

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

StopEntitiesDetectionV2Job

Stops a medical entities detection job in progress.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier of the medical entities job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier of the medical entities detection job that was stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++

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

StopICD10CMInferenceJob

Stops an InferICD10CM inference job in progress.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of job, use this identifier with the `DescribeICD10CMInferenceJob` operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

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 V2
- AWS SDK for .NET V4

- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)

- [AWS SDK for Kotlin](#)

- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

StopPHIDetectionJob

Stops a protected health information (PHI) detection job in progress.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier of the PHI detection job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier of the PHI detection job that was stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

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 V2
- AWS SDK for .NET V4
- AWS SDK for C++

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

StopRxNormInferenceJob

Stops an InferRxNorm inference job in progress.

Request Syntax

```
{
    "JobId": "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.

JobId

The identifier of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of job, use this identifier with the `DescribeRxNormInferenceJob` operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

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 V2
- AWS SDK for .NET V4

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

StopSNOMEDCTInferenceJob

Stops an InferSNOMEDCT inference job in progress.

Request Syntax

```
{
    "JobId": "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.

JobId

The job id of the asynchronous InferSNOMEDCT job to be stopped.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

Response Syntax

```
{
    "JobId": "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.

JobId

The identifier generated for the job. To get the status of job, use this identifier with the DescribeSNOMEDCTInferenceJob operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Errors

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

InternalServerException

An internal server error occurred. Retry your request.

HTTP Status Code: 500

InvalidRequestException

The request that you made is invalid. Check your request to determine why it's invalid and then retry the request.

HTTP Status Code: 400

ResourceNotFoundException

The resource identified by the specified Amazon Resource Name (ARN) was not found. Check the ARN and try your request again.

HTTP Status Code: 400

TooManyRequestsException

You have made too many requests within a short period of time. Wait for a short time and then try your request again. Contact customer support for more information about a service limit increase.

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 V2](#)
- [AWS SDK for .NET V4](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Data Types

The Amazon Comprehend Medical 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:

- Attribute
- Characters
- ComprehendMedicalAsyncJobFilter
- ComprehendMedicalAsyncJobProperties
- Entity
- ICD10CMAttribute
- ICD10CMConcept
- ICD10CMEntity
- ICD10CMTrait
- InputDataConfig
- OutputDataConfig
- RxNormAttribute
- RxNormConcept
- RxNormEntity
- RxNormTrait
- SNOMEDCTAttribute
- SNOMEDCTConcept
- SNOMEDCTDetails
- SNOMEDCTEntity
- SNOMEDCTTrait

- [Trait](#)

- [UnmappedAttribute](#)

Attribute

An extracted segment of the text that is an attribute of an entity, or otherwise related to an entity, such as the dosage of a medication taken. It contains information about the attribute such as id, begin and end offset within the input text, and the segment of the input text.

Contents

BeginOffset

The 0-based character offset in the input text that shows where the attribute begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of attribute.

Type: String

Valid Values: `MEDICATION | MEDICAL_CONDITION | PROTECTED_HEALTH_INFORMATION | TEST_TREATMENT_PROCEDURE | ANATOMY | TIME_EXPRESSION | BEHAVIORAL_ENVIRONMENTAL_SOCIAL`

Required: No

EndOffset

The 0-based character offset in the input text that shows where the attribute ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for this attribute. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

RelationshipScore

The level of confidence that Comprehend Medical; has that this attribute is correctly related to this entity.

Type: Float

Required: No

RelationshipType

The type of relationship between the entity and attribute. Type for the relationship is `OVERLAP`, indicating that the entity occurred at the same time as the `Date_Expression`.

Type: String

Valid Values: `EVERY` | `WITH_DOSAGE` | `ADMINISTERED_VIA` | `FOR` | `NEGATIVE` | `OVERLAP` | `DOSAGE` | `ROUTE_OR_MODE` | `FORM` | `FREQUENCY` | `DURATION` | `STRENGTH` | `RATE` | `ACUITY` | `TEST_VALUE` | `TEST_UNITS` | `TEST_UNIT` | `DIRECTION` | `SYSTEM_ORGAN_SITE` | `AMOUNT` | `USAGE` | `QUALITY`

Required: No

Score

The level of confidence that Comprehend Medical; has that the segment of text is correctly recognized as an attribute.

Type: Float

Required: No

Text

The segment of input text extracted as this attribute.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Traits

Contextual information for this attribute.

Type: Array of [Trait](#) objects

Required: No

Type

The type of attribute.

Type: String

Valid Values: NAME | DX_NAME | DOSAGE | ROUTE_OR_MODE | FORM |
FREQUENCY | DURATION | GENERIC_NAME | BRAND_NAME | STRENGTH |
RATE | ACUITY | TEST_NAME | TEST_VALUE | TEST_UNITS | TEST_UNIT
| PROCEDURE_NAME | TREATMENT_NAME | DATE | AGE | CONTACT_POINT |
PHONE_OR_FAX | EMAIL | IDENTIFIER | ID | URL | ADDRESS | PROFESSION |
SYSTEM_ORGAN_SITE | DIRECTION | QUALITY | QUANTITY | TIME_EXPRESSION
| TIME_TO_MEDICATION_NAME | TIME_TO_DX_NAME | TIME_TO_TEST_NAME |
TIME_TO_PROCEDURE_NAME | TIME_TO_TREATMENT_NAME | AMOUNT | GENDER
| RACE_ETHNICITY | ALLERGIES | TOBACCO_USE | ALCOHOL_CONSUMPTION |
REC_DRUG_USE

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Characters

The number of characters in the input text to be analyzed.

Contents

OriginalTextCharacters

The number of characters present in the input text document as processed by Comprehend Medical.

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](#)

ComprehendMedicalAsyncJobFilter

Provides information for filtering a list of detection jobs.

Contents

JobName

Filters on the name of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

JobStatus

Filters the list of jobs based on job status. Returns only jobs with the specified status.

Type: String

Valid Values: `SUBMITTED | IN_PROGRESS | COMPLETED | PARTIAL_SUCCESS | FAILED | STOP_REQUESTED | STOPPED`

Required: No

SubmitTimeAfter

Filters the list of jobs based on the time that the job was submitted for processing. Returns only jobs submitted after the specified time. Jobs are returned in descending order, newest to oldest.

Type: Timestamp

Required: No

SubmitTimeBefore

Filters the list of jobs based on the time that the job was submitted for processing. Returns only jobs submitted before the specified time. Jobs are returned in ascending order, oldest to newest.

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](#)

ComprehendMedicalAsyncJobProperties

Provides information about a detection job.

Contents

DataAccessRoleArn

The Amazon Resource Name (ARN) that gives Comprehend Medical; read access to your input data.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: No

EndTime

The time that the detection job completed.

Type: Timestamp

Required: No

ExpirationTime

The date and time that job metadata is deleted from the server. Output files in your S3 bucket will not be deleted. After the metadata is deleted, the job will no longer appear in the results of the `ListEntitiesDetectionV2Job` or the `ListPHIDetectionJobs` operation.

Type: Timestamp

Required: No

InputDataConfig

The input data configuration that you supplied when you created the detection job.

Type: [InputDataConfig](#) object

Required: No

JobId

The identifier assigned to the detection job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

JobName

The name that you assigned to the detection job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

JobStatus

The current status of the detection job. If the status is `FAILED`, the `Message` field shows the reason for the failure.

Type: String

Valid Values: `SUBMITTED | IN_PROGRESS | COMPLETED | PARTIAL_SUCCESS | FAILED | STOP_REQUESTED | STOPPED`

Required: No

KMSKey

The AWS Key Management Service key, if any, used to encrypt the output files.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `.*`

Required: No

LanguageCode

The language code of the input documents.

Type: String

Valid Values: en

Required: No

ManifestFilePath

The path to the file that describes the results of a batch job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Required: No

Message

A description of the status of a job.

Type: String

Required: No

ModelVersion

The version of the model used to analyze the documents. The version number looks like X.X.X. You can use this information to track the model used for a particular batch of documents.

Type: String

Required: No

OutputDataConfig

The output data configuration that you supplied when you created the detection job.

Type: [OutputDataConfig](#) object

Required: No

SubmitTime

The time that the detection job was submitted for processing.

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](#)

Entity

Provides information about an extracted medical entity.

Contents

Attributes

The extracted attributes that relate to this entity.

Type: Array of Attribute objects

Required: No

BeginOffset

The 0-based character offset in the input text that shows where the entity begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of the entity.

Type: String

Valid Values: `MEDICATION` | `MEDICAL_CONDITION` | `PROTECTED_HEALTH_INFORMATION` | `TEST_TREATMENT_PROCEDURE` | `ANATOMY` | `TIME_EXPRESSION` | `BEHAVIORAL_ENVIRONMENTAL_SOCIAL`

Required: No

EndOffset

The 0-based character offset in the input text that shows where the entity ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for the entity. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

Score

The level of confidence that Comprehend Medical; has in the accuracy of the detection.

Type: Float

Required: No

Text

The segment of input text extracted as this entity.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Traits

Contextual information for the entity.

Type: Array of Trait objects

Required: No

Type

Describes the specific type of entity with category of entities.

Type: String

Valid Values: NAME | DX_NAME | DOSAGE | ROUTE_OR_MODE | FORM |
FREQUENCY | DURATION | GENERIC_NAME | BRAND_NAME | STRENGTH |
RATE | ACUITY | TEST_NAME | TEST_VALUE | TEST_UNITS | TEST_UNIT
 | PROCEDURE_NAME | TREATMENT_NAME | DATE | AGE | CONTACT_POINT |

PHONE_OR_FAX | EMAIL | IDENTIFIER | ID | URL | ADDRESS | PROFESSION |
SYSTEM_ORGAN_SITE | DIRECTION | QUALITY | QUANTITY | TIME_EXPRESSION
| TIME_TO_MEDICATION_NAME | TIME_TO_DX_NAME | TIME_TO_TEST_NAME |
TIME_TO_PROCEDURE_NAME | TIME_TO_TREATMENT_NAME | AMOUNT | GENDER
| RACE_ETHNICITY | ALLERGIES | TOBACCO_USE | ALCOHOL_CONSUMPTION |
REC_DRUG_USE

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ICD10CMAttribute

The detected attributes that relate to an entity. This includes an extracted segment of the text that is an attribute of an entity, or otherwise related to an entity. InferICD10CM detects the following attributes: `Direction`, `System, Organ or Site`, and `Acuity`.

Contents

BeginOffset

The 0-based character offset in the input text that shows where the attribute begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of attribute. Can be either of `DX_NAME` or `TIME_EXPRESSION`.

Type: String

Valid Values: `DX_NAME | TIME_EXPRESSION`

Required: No

EndOffset

The 0-based character offset in the input text that shows where the attribute ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for this attribute. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

RelationshipScore

The level of confidence that Amazon Comprehend Medical has that this attribute is correctly related to this entity.

Type: Float

Required: No

RelationshipType

The type of relationship between the entity and attribute. Type for the relationship can be either of OVERLAP or SYSTEM_ORGAN_SITE.

Type: String

Valid Values: OVERLAP | SYSTEM_ORGAN_SITE | QUALITY

Required: No

Score

The level of confidence that Amazon Comprehend Medical has that the segment of text is correctly recognized as an attribute.

Type: Float

Required: No

Text

The segment of input text which contains the detected attribute.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Traits

The contextual information for the attribute. The traits recognized by InferICD10CM are DIAGNOSIS, SIGN, SYMPTOM, and NEGATION.

Type: Array of ICD10CMTrait objects

Required: No

Type

The type of attribute. InferICD10CM detects entities of the type DX_NAME.

Type: String

Valid Values: ACUITY | DIRECTION | SYSTEM_ORGAN_SITE | QUALITY | QUANTITY |
TIME_TO_DX_NAME | TIME_EXPRESSION

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ICD10CMConcept

The ICD-10-CM concepts that the entity could refer to, along with a score indicating the likelihood of the match.

Contents

Code

The ICD-10-CM code that identifies the concept found in the knowledge base from the Centers for Disease Control.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Description

The long description of the ICD-10-CM code in the ontology.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Score

The level of confidence that Amazon Comprehend Medical has that the entity is accurately linked to an ICD-10-CM concept.

Type: Float

Required: No

See Also

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

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

ICD10CMEntity

The collection of medical entities extracted from the input text and their associated information. For each entity, the response provides the entity text, the entity category, where the entity text begins and ends, and the level of confidence that Amazon Comprehend Medical has in the detection and analysis. Attributes and traits of the entity are also returned.

Contents

Attributes

The detected attributes that relate to the entity. An extracted segment of the text that is an attribute of an entity, or otherwise related to an entity, such as the nature of a medical condition.

Type: Array of ICD10CMAttribute objects

Required: No

BeginOffset

The 0-based character offset in the input text that shows where the entity begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of the entity. InferICD10CM detects entities in the `MEDICAL_CONDITION` category.

Type: String

Valid Values: `MEDICAL_CONDITION`

Required: No

EndOffset

The 0-based character offset in the input text that shows where the entity ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

ICD10CMConcepts

The ICD-10-CM concepts that the entity could refer to, along with a score indicating the likelihood of the match.

Type: Array of ICD10CMConcept objects

Required: No

Id

The numeric identifier for the entity. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

Score

The level of confidence that Amazon Comprehend Medical has in the accuracy of the detection.

Type: Float

Required: No

Text

The segment of input text that is matched to the detected entity.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: No

Traits

Provides Contextual information for the entity. The traits recognized by InferICD10CM are `DIAGNOSIS`, `SIGN`, `SYMPTOM`, and `NEGATION`.

Type: Array of ICD10CMTrait objects

Required: No

Type

Describes the specific type of entity with category of entities. InferICD10CM detects entities of the type DX_NAME and TIME_EXPRESSION.

Type: String

Valid Values: DX_NAME | TIME_EXPRESSION

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ICD10CMTrait

Contextual information for the entity. The traits recognized by InferICD10CM are `DIAGNOSIS`, `SIGN`, `SYMPTOM`, and `NEGATION`.

Contents

Name

Provides a name or contextual description about the trait.

Type: String

Valid Values: `NEGATION` | `DIAGNOSIS` | `SIGN` | `SYMPTOM` | `PERTAINS_TO_FAMILY` | `HYPOTHETICAL` | `LOW_CONFIDENCE`

Required: No

Score

The level of confidence that Comprehend Medical; has that the segment of text is correctly recognized as a trait.

Type: Float

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

InputDataConfig

The input properties for an entities detection job. This includes the name of the S3 bucket and the path to the files to be analyzed.

Contents

S3Bucket

The URI of the S3 bucket that contains the input data. The bucket must be in the same region as the API endpoint that you are calling.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^[0-9a-z\.\-_]*(?!\.)$`

Required: Yes

S3Key

The path to the input data files in the S3 bucket.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `.*`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OutputDataConfig

The output properties for a detection job.

Contents

S3Bucket

When you use the `OutputDataConfig` object with asynchronous operations, you specify the Amazon S3 location where you want to write the output data. The URI must be in the same region as the API endpoint that you are calling. The location is used as the prefix for the actual location of the output.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^[0-9a-z\.\-_]*(?!\.)$`

Required: Yes

S3Key

The path to the output data files in the S3 bucket. Comprehend Medical; creates an output directory using the job ID so that the output from one job does not overwrite the output of another.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `.*`

Required: No

See Also

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

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

RxNormAttribute

The extracted attributes that relate to this entity. The attributes recognized by InferRxNorm are `DOSAGE`, `DURATION`, `FORM`, `FREQUENCY`, `RATE`, `ROUTE_OR_MODE`.

Contents

BeginOffset

The 0-based character offset in the input text that shows where the attribute begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

EndOffset

The 0-based character offset in the input text that shows where the attribute ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for this attribute. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

RelationshipScore

The level of confidence that Amazon Comprehend Medical has that the attribute is accurately linked to an entity.

Type: Float

Required: No

Score

> The level of confidence that Comprehend Medical has that the segment of text is correctly recognized as an attribute.
>
> Type: Float
>
> Required: No

Text

> The segment of input text which corresponds to the detected attribute.
>
> Type: String
>
> Length Constraints: Minimum length of 1.
>
> Required: No

Traits

> Contextual information for the attribute. InferRxNorm recognizes the trait `NEGATION` for attributes, i.e. that the patient is not taking a specific dose or form of a medication.
>
> Type: Array of [RxNormTrait](#) objects
>
> Required: No

Type

> The type of attribute. The types of attributes recognized by InferRxNorm are `BRAND_NAME` and `GENERIC_NAME`.
>
> Type: String
>
> Valid Values: `DOSAGE | DURATION | FORM | FREQUENCY | RATE | ROUTE_OR_MODE | STRENGTH`
>
> Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RxNormConcept

The RxNorm concept that the entity could refer to, along with a score indicating the likelihood of the match.

Contents

Code

RxNorm concept ID, also known as the RxCUI.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Description

The description of the RxNorm concept.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Score

The level of confidence that Amazon Comprehend Medical has that the entity is accurately linked to the reported RxNorm concept.

Type: Float

Required: No

See Also

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

- AWS SDK for C++

- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

RxNormEntity

The collection of medical entities extracted from the input text and their associated information. For each entity, the response provides the entity text, the entity category, where the entity text begins and ends, and the level of confidence that Amazon Comprehend Medical has in the detection and analysis. Attributes and traits of the entity are also returned.

Contents

Attributes

The extracted attributes that relate to the entity. The attributes recognized by InferRxNorm are DOSAGE, DURATION, FORM, FREQUENCY, RATE, ROUTE_OR_MODE, and STRENGTH.

Type: Array of RxNormAttribute objects

Required: No

BeginOffset

The 0-based character offset in the input text that shows where the entity begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of the entity.

Type: String

Valid Values: MEDICATION

Required: No

EndOffset

The 0-based character offset in the input text that shows where the entity ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for the entity. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

RxNormConcepts

The RxNorm concepts that the entity could refer to, along with a score indicating the likelihood of the match.

Type: Array of [RxNormConcept](#) objects

Required: No

Score

The level of confidence that Amazon Comprehend Medical has in the accuracy of the detected entity.

Type: Float

Required: No

Text

The segment of input text extracted from which the entity was detected.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: No

Traits

Contextual information for the entity.

Type: Array of [RxNormTrait](#) objects

Required: No

Type

Describes the specific type of entity.

Type: String

Valid Values: `BRAND_NAME` | `GENERIC_NAME`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RxNormTrait

The contextual information for the entity. InferRxNorm recognizes the trait NEGATION, which is any indication that the patient is not taking a medication.

Contents

Name

Provides a name or contextual description about the trait.

Type: String

Valid Values: NEGATION | PAST_HISTORY

Required: No

Score

The level of confidence that Amazon Comprehend Medical has in the accuracy of the detected trait.

Type: Float

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SNOMEDCTAttribute

The extracted attributes that relate to an entity. An extracted segment of the text that is an attribute of an entity, or otherwise related to an entity, such as the dosage of a medication taken.

Contents

BeginOffset

The 0-based character offset in the input text that shows where the attribute begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of the detected attribute. Possible categories include MEDICAL_CONDITION, ANATOMY, and TEST_TREATMENT_PROCEDURE.

Type: String

Valid Values: `MEDICAL_CONDITION` | `ANATOMY` | `TEST_TREATMENT_PROCEDURE`

Required: No

EndOffset

The 0-based character offset in the input text that shows where the attribute ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for this attribute. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

RelationshipScore

The level of confidence that Comprehend Medical has that this attribute is correctly related to this entity.

Type: Float

Required: No

RelationshipType

The type of relationship that exists between the entity and the related attribute.

Type: String

Valid Values: `ACUITY | QUALITY | TEST_VALUE | TEST_UNITS | DIRECTION | SYSTEM_ORGAN_SITE | TEST_UNIT`

Required: No

Score

The level of confidence that Comprehend Medical has that the segment of text is correctly recognized as an attribute.

Type: Float

Required: No

SNOMEDCTConcepts

The SNOMED-CT concepts specific to an attribute, along with a score indicating the likelihood of the match.

Type: Array of [SNOMEDCTConcept](#) objects

Required: No

Text

The segment of input text extracted as this attribute.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Traits

Contextual information for an attribute. Examples include signs, symptoms, diagnosis, and negation.

Type: Array of [SNOMEDCTTrait](#) objects

Required: No

Type

The type of attribute. Possible types include DX_NAME, ACUITY, DIRECTION, SYSTEM_ORGAN_SITE,TEST_NAME, TEST_VALUE, TEST_UNIT, PROCEDURE_NAME, and TREATMENT_NAME.

Type: String

Valid Values: `ACUITY | QUALITY | DIRECTION | SYSTEM_ORGAN_SITE | TEST_VALUE | TEST_UNIT`

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SNOMEDCTConcept

The SNOMED-CT concepts that the entity could refer to, along with a score indicating the likelihood of the match.

Contents

Code

The numeric ID for the SNOMED-CT concept.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Description

The description of the SNOMED-CT concept.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Score

The level of confidence Comprehend Medical has that the entity should be linked to the identified SNOMED-CT concept.

Type: Float

Required: No

See Also

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

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SNOMEDCTDetails

The information about the revision of the SNOMED-CT ontology in the response. Specifically, the details include the SNOMED-CT edition, language, and version date.

Contents

Edition

The edition of SNOMED-CT used. The edition used for the InferSNOMEDCT editions is the US edition.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Language

The language used in the SNOMED-CT ontology. All Amazon Comprehend Medical operations are US English (en).

Type: String

Length Constraints: Minimum length of 1.

Required: No

VersionDate

The version date of the SNOMED-CT ontology used.

Type: String

Length Constraints: Minimum length 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](#)

SNOMEDCTEntity

The collection of medical entities extracted from the input text and their associated information. For each entity, the response provides the entity text, the entity category, where the entity text begins and ends, and the level of confidence that Comprehend Medical has in the detection and analysis. Attributes and traits of the entity are also returned.

Contents

Attributes

An extracted segment of the text that is an attribute of an entity, or otherwise related to an entity, such as the dosage of a medication taken.

Type: Array of SNOMEDCTAttribute objects

Required: No

BeginOffset

The 0-based character offset in the input text that shows where the entity begins. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Category

The category of the detected entity. Possible categories are MEDICAL_CONDITION, ANATOMY, or TEST_TREATMENT_PROCEDURE.

Type: String

Valid Values: `MEDICAL_CONDITION | ANATOMY | TEST_TREATMENT_PROCEDURE`

Required: No

EndOffset

The 0-based character offset in the input text that shows where the entity ends. The offset returns the UTF-8 code point in the string.

Type: Integer

Required: No

Id

The numeric identifier for the entity. This is a monotonically increasing id unique within this response rather than a global unique identifier.

Type: Integer

Required: No

Score

The level of confidence that Comprehend Medical has in the accuracy of the detected entity.

Type: Float

Required: No

SNOMEDCTConcepts

The SNOMED concepts that the entity could refer to, along with a score indicating the likelihood of the match.

Type: Array of SNOMEDCTConcept objects

Required: No

Text

The segment of input text extracted as this entity.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10000.

Required: No

Traits

Contextual information for the entity.

Type: Array of SNOMEDCTTrait objects

Required: No

Type

> Describes the specific type of entity with category of entities. Possible types include DX_NAME, ACUITY, DIRECTION, SYSTEM_ORGAN_SITE, TEST_NAME, TEST_VALUE, TEST_UNIT, PROCEDURE_NAME, or TREATMENT_NAME.
>
> Type: String
>
> Valid Values: DX_NAME | TEST_NAME | PROCEDURE_NAME | TREATMENT_NAME
>
> Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SNOMEDCTTrait

Contextual information for an entity.

Contents

Name

The name or contextual description of a detected trait.

Type: String

Valid Values: NEGATION | DIAGNOSIS | SIGN | SYMPTOM | PERTAINS_TO_FAMILY | HYPOTHETICAL | LOW_CONFIDENCE | PAST_HISTORY | FUTURE

Required: No

Score

The level of confidence that Comprehend Medical has in the accuracy of a detected trait.

Type: Float

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Trait

Provides contextual information about the extracted entity.

Contents

Name

Provides a name or contextual description about the trait.

Type: String

Valid Values: SIGN | SYMPTOM | DIAGNOSIS | NEGATION | PERTAINS_TO_FAMILY | HYPOTHETICAL | LOW_CONFIDENCE | PAST_HISTORY | FUTURE

Required: No

Score

The level of confidence that Comprehend Medical; has in the accuracy of this trait.

Type: Float

Required: No

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

UnmappedAttribute

An attribute that was extracted, but Comprehend Medical; was unable to relate to an entity.

Contents

Attribute

The specific attribute that has been extracted but not mapped to an entity.

Type: [Attribute](#) object

Required: No

Type

The type of the unmapped attribute, could be one of the following values: "MEDICATION", "MEDICAL_CONDITION", "ANATOMY", "TEST_AND_TREATMENT_PROCEDURE" or "PROTECTED_HEALTH_INFORMATION".

Type: String

Valid Values: `MEDICATION | MEDICAL_CONDITION | PROTECTED_HEALTH_INFORMATION | TEST_TREATMENT_PROCEDURE | ANATOMY | TIME_EXPRESSION | BEHAVIORAL_ENVIRONMENTAL_SOCIAL`

Required: No

See Also

For more information about using this API in 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