亚马逊云科技

Amazon IoT Analytics

API Version 2017-11-27

Amazon IoT Analytics: API Reference

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Welcome

> ⚠️ **Important**
>
> Amazon IoT Analytics is no longer available to new customers. Existing customers of
> Amazon IoT Analytics can continue to use the service as normal. [Learn more](#)

Amazon IoT Analytics allows you to collect large amounts of device data, process messages, and store them. You can then query the data and run sophisticated analytics on it. Amazon IoT Analytics enables advanced data exploration through integration with Jupyter Notebooks and data visualization through integration with Amazon QuickSight.

Traditional analytics and business intelligence tools are designed to process structured data. IoT data often comes from devices that record noisy processes (such as temperature, motion, or sound). As a result the data from these devices can have significant gaps, corrupted messages, and false readings that must be cleaned up before analysis can occur. Also, IoT data is often only meaningful in the context of other data from external sources.

Amazon IoT Analytics automates the steps required to analyze data from IoT devices. Amazon IoT Analytics filters, transforms, and enriches IoT data before storing it in a time-series data store for analysis. You can set up the service to collect only the data you need from your devices, apply mathematical transforms to process the data, and enrich the data with device-specific metadata such as device type and location before storing it. Then, you can analyze your data by running queries using the built-in SQL query engine, or perform more complex analytics and machine learning inference. Amazon IoT Analytics includes pre-built models for common IoT use cases so you can answer questions like which devices are about to fail or which customers are at risk of abandoning their wearable devices.

This document was last published on May 16, 2025.

Actions

The following actions are supported:

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- StartPipelineReprocessing
- TagResource
- UntagResource
- UpdateChannel
- UpdateDataset
- UpdateDatastore
- UpdatePipeline

BatchPutMessage

Sends messages to a channel.

> ⚠️ **Important**
>
> The BatchPutMessage operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
POST /messages/batch HTTP/1.1
Content-type: application/json

{
   "channelName": "string",
   "messages": [
      {
         "messageId": "string",
         "payload": blob
      }
   ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

channelName

The name of the channel where the messages are sent.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

messages

The list of messages to be sent. Each message has the format: { "messageId": "string", "payload": "string"}.

The field names of message payloads (data) that you send to Amazon IoT Analytics:

- Must contain only alphanumeric characters and undescores (_). No other special characters are allowed.

- Must begin with an alphabetic character or single underscore (_).

- Cannot contain hyphens (-).

- In regular expression terms: "^[A-Za-z_]([A-Za-z0-9]*|[A-Za-z0-9][A-Za-z0-9_]*)$".

- Cannot be more than 255 characters.

- Are case insensitive. (Fields named foo and FOO in the same payload are considered duplicates.)

For example, {"temp_01": 29} or {"_temp_01": 29} are valid, but {"temp-01": 29}, {"01_temp": 29} or {"__temp_01": 29} are invalid in message payloads.

Type: Array of Message objects

Required: Yes

Response Syntax

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

{
   "batchPutMessageErrorEntries": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "messageId": "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.

batchPutMessageErrorEntries

A list of any errors encountered when sending the messages to the channel.

Type: Array of BatchPutMessageErrorEntry objects

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

CancelPipelineReprocessing

Cancels the reprocessing of data through the pipeline.

> ⚠️ **Important**
>
> The CancelPipelineReprocessing operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
DELETE /pipelines/pipelineName/reprocessing/reprocessingId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

pipelineName

The name of pipeline for which data reprocessing is canceled.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

reprocessingId

The ID of the reprocessing task (returned by StartPipelineReprocessing).

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

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CreateChannel

Used to create a channel. A channel collects data from an MQTT topic and archives the raw, unprocessed messages before publishing the data to a pipeline.

> ⚠ **Important**
>
> The CreateChannel operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

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

{
    "channelName": "string",
    "channelStorage": {
        "customerManagedS3": {
            "bucket": "string",
            "keyPrefix": "string",
            "roleArn": "string"
        },
        "serviceManagedS3": {
        }
    },
    "retentionPeriod": {
        "numberOfDays": number,
        "unlimited": boolean
    },
    "tags": [
        {
            "key": "string",
            "value": "string"
        }
    ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

channelName

>   The name of the channel.

>   Type: String

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

>   Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

>   Required: Yes

channelStorage

>   Where channel data is stored. You can choose one of `serviceManagedS3` or
>   `customerManagedS3` storage. If not specified, the default is `serviceManagedS3`. You can't
>   change this storage option after the channel is created.

>   Type: ChannelStorage object

>   Required: No

retentionPeriod

>   How long, in days, message data is kept for the channel. When `customerManagedS3` storage is
>   selected, this parameter is ignored.

>   Type: RetentionPeriod object

>   Required: No

tags

>   Metadata which can be used to manage the channel.

>   Type: Array of Tag objects

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

Required: No

Response Syntax

```
HTTP/1.1 201
Content-type: application/json

{
   "channelArn": "string",
   "channelName": "string",
   "retentionPeriod": {
      "numberOfDays": number,
      "unlimited": boolean
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

channelArn

The ARN of the channel.

Type: String

channelName

The name of the channel.

Type: String

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

retentionPeriod

How long, in days, message data is kept for the channel.

Type: RetentionPeriod object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceAlreadyExistsException

A resource with the same name already exists.

HTTP Status Code: 409

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

CreateDataset

Used to create a dataset. A dataset stores data retrieved from a data store by applying a
queryAction (a SQL query) or a containerAction (executing a containerized application). This
operation creates the skeleton of a dataset. The dataset can be populated manually by calling
CreateDatasetContent or automatically according to a trigger you specify.

> ⚠️ **Important**
>
> The CreateDataset operation in Amazon IoT Analytics is no longer available to new
> customers. Existing customers of Amazon IoT Analytics can continue to use the service as
> normal. Learn more

Request Syntax

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

{
   "actions": [
      {
         "actionName": "string",
         "containerAction": {
            "executionRoleArn": "string",
            "image": "string",
            "resourceConfiguration": {
               "computeType": "string",
               "volumeSizeInGB": number
            },
            "variables": [
               {
                  "datasetContentVersionValue": {
                     "datasetName": "string"
                  },
                  "doubleValue": number,
                  "name": "string",
                  "outputFileUriValue": {
                     "fileName": "string"
                  },
                  "stringValue": "string"
```

```
                  }
              ]
          },
          "queryAction": {
              "filters": [
                  {
                      "deltaTime": {
                          "offsetSeconds": number,
                          "timeExpression": "string"
                      }
                  }
              ],
              "sqlQuery": "string"
          }
      }
  ],
  "contentDeliveryRules": [
      {
          "destination": {
              "iotEventsDestinationConfiguration": {
                  "inputName": "string",
                  "roleArn": "string"
              },
              "s3DestinationConfiguration": {
                  "bucket": "string",
                  "glueConfiguration": {
                      "databaseName": "string",
                      "tableName": "string"
                  },
                  "key": "string",
                  "roleArn": "string"
              }
          },
          "entryName": "string"
      }
  ],
  "datasetName": "string",
  "lateDataRules": [
      {
          "ruleConfiguration": {
              "deltaTimeSessionWindowConfiguration": {
                  "timeoutInMinutes": number
              }
          },
```

```
            "ruleName": "string"
        }
    ],
    "retentionPeriod": {
        "numberOfDays": number,
        "unlimited": boolean
    },
    "tags": [
        {
            "key": "string",
            "value": "string"
        }
    ],
    "triggers": [
        {
            "dataset": {
                "name": "string"
            },
            "schedule": {
                "expression": "string"
            }
        }
    ],
    "versioningConfiguration": {
        "maxVersions": number,
        "unlimited": boolean
    }
 }
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

actions

A list of actions that create the dataset contents.

Type: Array of DatasetAction objects

Array Members: Fixed number of 1 item.

Required: Yes

contentDeliveryRules

When dataset contents are created, they are delivered to destinations specified here.

Type: Array of DatasetContentDeliveryRule objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

datasetName

The name of the dataset.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

lateDataRules

A list of data rules that send notifications to CloudWatch, when data arrives late. To specify `lateDataRules`, the dataset must use a DeltaTimer filter.

Type: Array of LateDataRule objects

Array Members: Fixed number of 1 item.

Required: No

retentionPeriod

Optional. How long, in days, versions of dataset contents are kept for the dataset. If not specified or set to `null`, versions of dataset contents are retained for at most 90 days. The number of versions of dataset contents retained is determined by the `versioningConfiguration` parameter. For more information, see Keeping Multiple Versions of Amazon IoT Analytics datasets in the *Amazon IoT Analytics User Guide*.

Type: RetentionPeriod object

Required: No

tags

Metadata which can be used to manage the dataset.

Type: Array of Tag objects

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

Required: No

triggers

A list of triggers. A trigger causes dataset contents to be populated at a specified time interval or when another dataset's contents are created. The list of triggers can be empty or contain up to five `DataSetTrigger` objects.

Type: Array of DatasetTrigger objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

versioningConfiguration

Optional. How many versions of dataset contents are kept. If not specified or set to null, only the latest version plus the latest succeeded version (if they are different) are kept for the time period specified by the `retentionPeriod` parameter. For more information, see Keeping Multiple Versions of Amazon IoT Analytics datasets in the *Amazon IoT Analytics User Guide*.

Type: VersioningConfiguration object

Required: No

Response Syntax

```
HTTP/1.1 201
Content-type: application/json

{
    "datasetArn": "string",
    "datasetName": "string",
```

```
      "retentionPeriod": {
         "numberOfDays": number,
         "unlimited": boolean
      }
 }
```

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

datasetArn

   The ARN of the dataset.

   Type: String

datasetName

   The name of the dataset.

   Type: String

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

   Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

retentionPeriod

   How long, in days, dataset contents are kept for the dataset.

   Type: RetentionPeriod object

Errors

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

InternalFailureException

   There was an internal failure.

   HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceAlreadyExistsException

A resource with the same name already exists.

HTTP Status Code: 409

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- [Amazon Command Line Interface](#)
- [Amazon SDK for .NET](#)
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- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)

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

CreateDatasetContent

Creates the content of a dataset by applying a `queryAction` (a SQL query) or a `containerAction` (executing a containerized application).

> ⚠ **Important**
>
> The CreateDatasetContent operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
POST /datasets/datasetName/content HTTP/1.1
Content-type: application/json

{
    "versionId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request accepts the following data in JSON format.

versionId

The version ID of the dataset content. To specify `versionId` for a dataset content, the dataset must use a [DeltaTimer](#) filter.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 36.

Required: No

Response Syntax

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

{
    "versionId": "string"
}
```

Response Elements

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

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

versionId

The version ID of the dataset contents that are being created.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 36.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
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- Amazon SDK for C++
- Amazon SDK for Go v2
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- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin
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- Amazon SDK for Python
- Amazon SDK for Ruby V3

CreateDatastore

Creates a data store, which is a repository for messages.

> ⚠️ **Important**
>
> The CreateDatastore operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

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

{
   "datastoreName": "string",
   "datastorePartitions": {
      "partitions": [
         {
            "attributePartition": {
               "attributeName": "string"
            },
            "timestampPartition": {
               "attributeName": "string",
               "timestampFormat": "string"
            }
         }
      ]
   },
   "datastoreStorage": {
      "customerManagedS3": {
         "bucket": "string",
         "keyPrefix": "string",
         "roleArn": "string"
      },
      "iotSiteWiseMultiLayerStorage": {
         "customerManagedS3Storage": {
            "bucket": "string",
            "keyPrefix": "string"
         }
```

```
        },
        "serviceManagedS3": {
        }
    },
    "fileFormatConfiguration": {
        "jsonConfiguration": {
        },
        "parquetConfiguration": {
            "schemaDefinition": {
                "columns": [
                    {
                        "name": "string",
                        "type": "string"
                    }
                ]
            }
        }
    },
    "retentionPeriod": {
        "numberOfDays": number,
        "unlimited": boolean
    },
    "tags": [
        {
            "key": "string",
            "value": "string"
        }
    ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

datastoreName

The name of the data store.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

datastorePartitions

Contains information about the partition dimensions in a data store.

Type: DatastorePartitions object

Required: No

datastoreStorage

Where data in a data store is stored.. You can choose `serviceManagedS3` storage, `customerManagedS3` storage, or `iotSiteWiseMultiLayerStorage` storage. The default is `serviceManagedS3`. You can't change the choice of Amazon S3 storage after your data store is created.

Type: DatastoreStorage object

Required: No

fileFormatConfiguration

Contains the configuration information of file formats. Amazon IoT Analytics data stores support JSON and Parquet.

The default file format is JSON. You can specify only one format.

You can't change the file format after you create the data store.

Type: FileFormatConfiguration object

Required: No

retentionPeriod

How long, in days, message data is kept for the data store. When `customerManagedS3` storage is selected, this parameter is ignored.

Type: RetentionPeriod object

Required: No

tags

Metadata which can be used to manage the data store.

Type: Array of Tag objects

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

Required: No

Response Syntax

```
HTTP/1.1 201
Content-type: application/json

{
   "datastoreArn": "string",
   "datastoreName": "string",
   "retentionPeriod": {
      "numberOfDays": number,
      "unlimited": boolean
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

datastoreArn

The ARN of the data store.

Type: String

datastoreName

The name of the data store.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

retentionPeriod

How long, in days, message data is kept for the data store.

Type: RetentionPeriod object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceAlreadyExistsException

A resource with the same name already exists.

HTTP Status Code: 409

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

CreatePipeline

Creates a pipeline. A pipeline consumes messages from a channel and allows you to process the messages before storing them in a data store. You must specify both a `channel` and a `datastore` activity and, optionally, as many as 23 additional activities in the `pipelineActivities` array.

> ⚠️ **Important**
>
> The CreatePipeline operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

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

{
   "pipelineActivities": [
      {
         "addAttributes": {
            "attributes": {
               "string" : "string"
            },
            "name": "string",
            "next": "string"
         },
         "channel": {
            "channelName": "string",
            "name": "string",
            "next": "string"
         },
         "datastore": {
            "datastoreName": "string",
            "name": "string"
         },
         "deviceRegistryEnrich": {
            "attribute": "string",
            "name": "string",
            "next": "string",
```

```
                "roleArn": "string",
                "thingName": "string"
            },
            "deviceShadowEnrich": {
                "attribute": "string",
                "name": "string",
                "next": "string",
                "roleArn": "string",
                "thingName": "string"
            },
            "filter": {
                "filter": "string",
                "name": "string",
                "next": "string"
            },
            "lambda": {
                "batchSize": number,
                "lambdaName": "string",
                "name": "string",
                "next": "string"
            },
            "math": {
                "attribute": "string",
                "math": "string",
                "name": "string",
                "next": "string"
            },
            "removeAttributes": {
                "attributes": [ "string" ],
                "name": "string",
                "next": "string"
            },
            "selectAttributes": {
                "attributes": [ "string" ],
                "name": "string",
                "next": "string"
            }
        }
    ],
    "pipelineName": "string",
    "tags": [
        {
            "key": "string",
            "value": "string"
```

```
        }
    ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

pipelineActivities

A list of `PipelineActivity` objects. Activities perform transformations on your messages, such as removing, renaming or adding message attributes; filtering messages based on attribute values; invoking your Lambda unctions on messages for advanced processing; or performing mathematical transformations to normalize device data.

The list can be 2-25 `PipelineActivity` objects and must contain both a `channel` and a `datastore` activity. Each entry in the list must contain only one activity. For example:

`pipelineActivities = [ { "channel": { ... } }, { "lambda": { ... } }, ... ]`

Type: Array of PipelineActivity objects

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

Required: Yes

pipelineName

The name of the pipeline.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

tags

Metadata which can be used to manage the pipeline.

Type: Array of Tag objects

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

Required: No

Response Syntax

```
HTTP/1.1 201
Content-type: application/json

{
    "pipelineArn": "string",
    "pipelineName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

pipelineArn

The ARN of the pipeline.

Type: String

pipelineName

The name of the pipeline.

Type: String

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceAlreadyExistsException

A resource with the same name already exists.

HTTP Status Code: 409

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- [Amazon Command Line Interface](#)

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

DeleteChannel

Deletes the specified channel.

Request Syntax

```
DELETE /channels/channelName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

channelName

The name of the channel to delete.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

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

DeleteDataset

Deletes the specified dataset.

You do not have to delete the content of the dataset before you perform this operation.

Request Syntax

```
DELETE /datasets/datasetName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset to delete.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin

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

DeleteDatasetContent

Deletes the content of the specified dataset.

Request Syntax

```
DELETE /datasets/datasetName/content?versionId=versionId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset whose content is deleted.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

versionId

The version of the dataset whose content is deleted. You can also use the strings "$LATEST" or "$LATEST_SUCCEEDED" to delete the latest or latest successfully completed data set. If not specified, "$LATEST_SUCCEEDED" is the default.

Length Constraints: Minimum length of 7. Maximum length of 36.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2

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

DeleteDatastore

Deletes the specified data store.

Request Syntax

```
DELETE /datastores/datastoreName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datastoreName

The name of the data store to delete.

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

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

DeletePipeline

Deletes the specified pipeline.

Request Syntax

```
DELETE /pipelines/pipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

pipelineName

The name of the pipeline to delete.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

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

DescribeChannel

Retrieves information about a channel.

Request Syntax

```
GET /channels/channelName?includeStatistics=includeStatistics HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

channelName

The name of the channel whose information is retrieved.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

includeStatistics

If true, additional statistical information about the channel is included in the response. This feature can't be used with a channel whose S3 storage is customer-managed.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "channel": {
      "arn": "string",
      "creationTime": number,
```

```
        "lastMessageArrivalTime": number,
        "lastUpdateTime": number,
        "name": "string",
        "retentionPeriod": {
            "numberOfDays": number,
            "unlimited": boolean
        },
        "status": "string",
        "storage": {
            "customerManagedS3": {
                "bucket": "string",
                "keyPrefix": "string",
                "roleArn": "string"
            },
            "serviceManagedS3": {
            }
        }
    },
    "statistics": {
        "size": {
            "estimatedOn": number,
            "estimatedSizeInBytes": 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.

channel

An object that contains information about the channel.

Type: Channel object

statistics

Statistics about the channel. Included if the `includeStatistics` parameter is set to `true` in the request.

Type: ChannelStatistics object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2

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

DescribeDataset

Retrieves information about a dataset.

Request Syntax

```
GET /datasets/datasetName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset whose information is retrieved.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "dataset": {
      "actions": [
         {
            "actionName": "string",
            "containerAction": {
               "executionRoleArn": "string",
               "image": "string",
               "resourceConfiguration": {
                  "computeType": "string",
                  "volumeSizeInGB": number
```

```
                    },
                    "variables": [
                        {
                            "datasetContentVersionValue": {
                                "datasetName": "string"
                            },
                            "doubleValue": number,
                            "name": "string",
                            "outputFileUriValue": {
                                "fileName": "string"
                            },
                            "stringValue": "string"
                        }
                    ]
                },
                "queryAction": {
                    "filters": [
                        {
                            "deltaTime": {
                                "offsetSeconds": number,
                                "timeExpression": "string"
                            }
                        }
                    ],
                    "sqlQuery": "string"
                }
            }
        ],
        "arn": "string",
        "contentDeliveryRules": [
            {
                "destination": {
                    "iotEventsDestinationConfiguration": {
                        "inputName": "string",
                        "roleArn": "string"
                    },
                    "s3DestinationConfiguration": {
                        "bucket": "string",
                        "glueConfiguration": {
                            "databaseName": "string",
                            "tableName": "string"
                        },
                        "key": "string",
                        "roleArn": "string"
```

```
                }
            },
            "entryName": "string"
        }
    ],
    "creationTime": number,
    "lastUpdateTime": number,
    "lateDataRules": [
        {
            "ruleConfiguration": {
                "deltaTimeSessionWindowConfiguration": {
                    "timeoutInMinutes": number
                }
            },
            "ruleName": "string"
        }
    ],
    "name": "string",
    "retentionPeriod": {
        "numberOfDays": number,
        "unlimited": boolean
    },
    "status": "string",
    "triggers": [
        {
            "dataset": {
                "name": "string"
            },
            "schedule": {
                "expression": "string"
            }
        }
    ],
    "versioningConfiguration": {
        "maxVersions": number,
        "unlimited": boolean
    }
    }
}
```

Response Elements

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

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

dataset

An object that contains information about the dataset.

Type: Dataset object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

DescribeDatastore

Retrieves information about a data store.

Request Syntax

```
GET /datastores/datastoreName?includeStatistics=includeStatistics HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datastoreName

The name of the data store

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

includeStatistics

If true, additional statistical information about the data store is included in the response. This feature can't be used with a data store whose S3 storage is customer-managed.

Request Body

The request does not have a request body.

Response Syntax

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

{
    "datastore": {
        "arn": "string",
        "creationTime": number,
        "datastorePartitions": {
            "partitions": [
```

```
            {
                "attributePartition": {
                    "attributeName": "string"
                },
                "timestampPartition": {
                    "attributeName": "string",
                    "timestampFormat": "string"
                }
            }
        ]
    },
    "fileFormatConfiguration": {
        "jsonConfiguration": {
        },
        "parquetConfiguration": {
            "schemaDefinition": {
                "columns": [
                    {
                        "name": "string",
                        "type": "string"
                    }
                ]
            }
        }
    },
    "lastMessageArrivalTime": number,
    "lastUpdateTime": number,
    "name": "string",
    "retentionPeriod": {
        "numberOfDays": number,
        "unlimited": boolean
    },
    "status": "string",
    "storage": {
        "customerManagedS3": {
            "bucket": "string",
            "keyPrefix": "string",
            "roleArn": "string"
        },
        "iotSiteWiseMultiLayerStorage": {
            "customerManagedS3Storage": {
                "bucket": "string",
                "keyPrefix": "string"
            }
```

```
        },
        "serviceManagedS3": {
        }
      }
    },
    "statistics": {
      "size": {
        "estimatedOn": number,
        "estimatedSizeInBytes": 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.

datastore

Information about the data store.

Type: Datastore object

statistics

Additional statistical information about the data store. Included if the `includeStatistics`
parameter is set to `true` in the request.

Type: DatastoreStatistics object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

DescribeLoggingOptions

Retrieves the current settings of the Amazon IoT Analytics logging options.

Request Syntax

```
GET /logging HTTP/1.1
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

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

{
    "loggingOptions": {
        "enabled": boolean,
        "level": "string",
        "roleArn": "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.

loggingOptions

    The current settings of the Amazon IoT Analytics logging options.

    Type: LoggingOptions object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2

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

DescribePipeline

Retrieves information about a pipeline.

Request Syntax

```
GET /pipelines/pipelineName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

pipelineName

The name of the pipeline whose information is retrieved.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "pipeline": {
      "activities": [
         {
            "addAttributes": {
               "attributes": {
                  "string" : "string"
               },
               "name": "string",
               "next": "string"
            },
```

```
      "channel": {
         "channelName": "string",
         "name": "string",
         "next": "string"
      },
      "datastore": {
         "datastoreName": "string",
         "name": "string"
      },
      "deviceRegistryEnrich": {
         "attribute": "string",
         "name": "string",
         "next": "string",
         "roleArn": "string",
         "thingName": "string"
      },
      "deviceShadowEnrich": {
         "attribute": "string",
         "name": "string",
         "next": "string",
         "roleArn": "string",
         "thingName": "string"
      },
      "filter": {
         "filter": "string",
         "name": "string",
         "next": "string"
      },
      "lambda": {
         "batchSize": number,
         "lambdaName": "string",
         "name": "string",
         "next": "string"
      },
      "math": {
         "attribute": "string",
         "math": "string",
         "name": "string",
         "next": "string"
      },
      "removeAttributes": {
         "attributes": [ "string" ],
         "name": "string",
         "next": "string"
```

```
            },
            "selectAttributes": {
                "attributes": [ "string" ],
                "name": "string",
                "next": "string"
            }
        }
    ],
    "arn": "string",
    "creationTime": number,
    "lastUpdateTime": number,
    "name": "string",
    "reprocessingSummaries": [
        {
            "creationTime": number,
            "id": "string",
            "status": "string"
        }
    ]
  }
}
```

Response Elements

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

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

pipeline

A `Pipeline` object that contains information about the pipeline.

Type: Pipeline object

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

GetDatasetContent

Retrieves the contents of a dataset as presigned URIs.

> ⚠ **Important**
>
> The GetDatasetContent operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. [Learn more](#)

Request Syntax

```
GET /datasets/datasetName/content?versionId=versionId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset whose contents are retrieved.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

versionId

The version of the dataset whose contents are retrieved. You can also use the strings "$LATEST" or "$LATEST_SUCCEEDED" to retrieve the contents of the latest or latest successfully completed dataset. If not specified, "$LATEST_SUCCEEDED" is the default.

Length Constraints: Minimum length of 7. Maximum length of 36.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "entries": [
      {
         "dataURI": "string",
         "entryName": "string"
      }
   ],
   "status": {
      "reason": "string",
      "state": "string"
   },
   "timestamp": 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.

entries

A list of `DatasetEntry` objects.

Type: Array of DatasetEntry objects

status

The status of the dataset content.

Type: DatasetContentStatus object

timestamp

The time when the request was made.

Type: Timestamp

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2

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

ListChannels

Retrieves a list of channels.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

maxResults

> The maximum number of results to return in this request.
>
> The default value is 100.
>
> Valid Range: Minimum value of 1. Maximum value of 250.

nextToken

> The token for the next set of results.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "channelSummaries": [
      {
         "channelName": "string",
         "channelStorage": {
            "customerManagedS3": {
               "bucket": "string",
```

```
                    "keyPrefix": "string",
                    "roleArn": "string"
                },
                "serviceManagedS3": {
                }
            },
            "creationTime": number,
            "lastMessageArrivalTime": number,
            "lastUpdateTime": number,
            "status": "string"
        }
    ],
    "nextToken": "string"
}
```

Response Elements

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

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

channelSummaries

A list of `ChannelSummary` objects.

Type: Array of ChannelSummary objects

nextToken

The token to retrieve the next set of results, or `null` if there are no more results.

Type: String

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

ListDatasetContents

Lists information about dataset contents that have been created.

Request Syntax

```
GET /datasets/datasetName/contents?
maxResults=maxResults&nextToken=nextToken&scheduledBefore=scheduledBefore&scheduledOnOrAfter=sc
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset whose contents information you want to list.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 1. Maximum value of 250.

nextToken

The token for the next set of results.

scheduledBefore

A filter to limit results to those dataset contents whose creation is scheduled before the given time. See the field `triggers.schedule` in the `CreateDataset` request. (timestamp)

scheduledOnOrAfter

A filter to limit results to those dataset contents whose creation is scheduled on or after the given time. See the field `triggers.schedule` in the `CreateDataset` request. (timestamp)

Request Body

The request does not have a request body.

Response Syntax

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

{
    "datasetContentSummaries": [
        {
            "completionTime": number,
            "creationTime": number,
            "scheduleTime": number,
            "status": {
                "reason": "string",
                "state": "string"
            },
            "version": "string"
        }
    ],
    "nextToken": "string"
}
```

Response Elements

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

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

datasetContentSummaries

Summary information about dataset contents that have been created.

Type: Array of DatasetContentSummary objects

nextToken

The token to retrieve the next set of results, or `null` if there are no more results.

Type: String

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- [Amazon Command Line Interface](#)
- [Amazon SDK for .NET](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)

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

ListDatasets

Retrieves information about datasets.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

maxResults

The maximum number of results to return in this request.

The default value is 100.

Valid Range: Minimum value of 1. Maximum value of 250.

nextToken

The token for the next set of results.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "datasetSummaries": [
      {
         "actions": [
            {
               "actionName": "string",
               "actionType": "string"
```

```
            }
        ],
        "creationTime": number,
        "datasetName": "string",
        "lastUpdateTime": number,
        "status": "string",
        "triggers": [
            {
                "dataset": {
                    "name": "string"
                },
                "schedule": {
                    "expression": "string"
                }
            }
        ]
    }
 ],
 "nextToken": "string"
}
```

Response Elements

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

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

datasetSummaries

 A list of `DatasetSummary` objects.

 Type: Array of DatasetSummary objects

nextToken

 The token to retrieve the next set of results, or `null` if there are no more results.

 Type: String

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

ListDatastores

Retrieves a list of data stores.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

maxResults

The maximum number of results to return in this request.

The default value is 100.

Valid Range: Minimum value of 1. Maximum value of 250.

nextToken

The token for the next set of results.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "datastoreSummaries": [
      {
         "creationTime": number,
         "datastoreName": "string",
         "datastorePartitions": {
            "partitions": [
               {
```

```
                    "attributePartition": {
                        "attributeName": "string"
                    },
                    "timestampPartition": {
                        "attributeName": "string",
                        "timestampFormat": "string"
                    }
                }
            ]
        },
        "datastoreStorage": {
            "customerManagedS3": {
                "bucket": "string",
                "keyPrefix": "string",
                "roleArn": "string"
            },
            "iotSiteWiseMultiLayerStorage": {
                "customerManagedS3Storage": {
                    "bucket": "string",
                    "keyPrefix": "string"
                }
            },
            "serviceManagedS3": {
            }
        },
        "fileFormatType": "string",
        "lastMessageArrivalTime": number,
        "lastUpdateTime": number,
        "status": "string"
    }
],
"nextToken": "string"
}
```

Response Elements

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

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

datastoreSummaries

A list of `DatastoreSummary` objects.

Type: Array of [DatastoreSummary](#) objects

nextToken

The token to retrieve the next set of results, or `null` if there are no more results.

Type: String

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

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

ListPipelines

Retrieves a list of pipelines.

Request Syntax

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

URI Request Parameters

The request uses the following URI parameters.

maxResults

The maximum number of results to return in this request.

The default value is 100.

Valid Range: Minimum value of 1. Maximum value of 250.

nextToken

The token for the next set of results.

Request Body

The request does not have a request body.

Response Syntax

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

{
   "nextToken": "string",
   "pipelineSummaries": [
      {
         "creationTime": number,
         "lastUpdateTime": number,
         "pipelineName": "string",
         "reprocessingSummaries": [
```

```
                {
                    "creationTime": number,
                    "id": "string",
                    "status": "string"
                }
            ]
        }
    ]
}
```

Response Elements

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

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

nextToken

The token to retrieve the next set of results, or `null` if there are no more results.

Type: String

pipelineSummaries

A list of `PipelineSummary` objects.

Type: Array of PipelineSummary objects

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

ListTagsForResource

Lists the tags (metadata) that you have assigned to the resource.

Request Syntax

```
GET /tags?resourceArn=resourceArn HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The ARN of the resource whose tags you want to list.

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "tags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

Response Elements

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

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

tags

   The tags (metadata) that you have assigned to the resource.

   Type: Array of Tag objects

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

Errors

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

InternalFailureException

   There was an internal failure.

   HTTP Status Code: 500

InvalidRequestException

   The request was not valid.

   HTTP Status Code: 400

LimitExceededException

   The command caused an internal limit to be exceeded.

   HTTP Status Code: 410

ResourceNotFoundException

   A resource with the specified name could not be found.

   HTTP Status Code: 404

ServiceUnavailableException

   The service is temporarily unavailable.

   HTTP Status Code: 503

ThrottlingException

   The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

PutLoggingOptions

Sets or updates the Amazon IoT Analytics logging options.

If you update the value of any `loggingOptions` field, it takes up to one minute for the change to take effect. Also, if you change the policy attached to the role you specified in the `roleArn` field (for example, to correct an invalid policy), it takes up to five minutes for that change to take effect.

> ⚠️ **Important**
>
> The PutLoggingOptions operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
PUT /logging HTTP/1.1
Content-type: application/json

{
    "loggingOptions": {
        "enabled": boolean,
        "level": "string",
        "roleArn": "string"
    }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

loggingOptions

The new values of the Amazon IoT Analytics logging options.

Type: LoggingOptions object

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

RunPipelineActivity

Simulates the results of running a pipeline activity on a message payload.

> ⚠️ **Important**
>
> The RunPipelineActivity operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
POST /pipelineactivities/run HTTP/1.1
Content-type: application/json

{
   "payloads": [ blob ],
   "pipelineActivity": {
      "addAttributes": {
         "attributes": {
            "string" : "string"
         },
         "name": "string",
         "next": "string"
      },
      "channel": {
         "channelName": "string",
         "name": "string",
         "next": "string"
      },
      "datastore": {
         "datastoreName": "string",
         "name": "string"
      },
      "deviceRegistryEnrich": {
         "attribute": "string",
         "name": "string",
         "next": "string",
         "roleArn": "string",
         "thingName": "string"
```

```
        },
        "deviceShadowEnrich": {
            "attribute": "string",
            "name": "string",
            "next": "string",
            "roleArn": "string",
            "thingName": "string"
        },
        "filter": {
            "filter": "string",
            "name": "string",
            "next": "string"
        },
        "lambda": {
            "batchSize": number,
            "lambdaName": "string",
            "name": "string",
            "next": "string"
        },
        "math": {
            "attribute": "string",
            "math": "string",
            "name": "string",
            "next": "string"
        },
        "removeAttributes": {
            "attributes": [ "string" ],
            "name": "string",
            "next": "string"
        },
        "selectAttributes": {
            "attributes": [ "string" ],
            "name": "string",
            "next": "string"
        }
    }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

payloads

  The sample message payloads on which the pipeline activity is run.

  Type: Array of Base64-encoded binary data objects

  Array Members: Minimum number of 1 item. Maximum number of 10 items.

  Required: Yes

pipelineActivity

  The pipeline activity that is run. This must not be a channel activity or a data store activity because these activities are used in a pipeline only to load the original message and to store the (possibly) transformed message. If a Lambda activity is specified, only short-running Lambda functions (those with a timeout of less than 30 seconds or less) can be used.

  Type: PipelineActivity object

  Required: Yes

Response Syntax

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

{
    "logResult": "string",
    "payloads": [ blob ]
}
```

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.

logResult

In case the pipeline activity fails, the log message that is generated.

Type: String

payloads

The enriched or transformed sample message payloads as base64-encoded strings. (The results of running the pipeline activity on each input sample message payload, encoded in base64.)

Type: Array of Base64-encoded binary data objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

SampleChannelData

Retrieves a sample of messages from the specified channel ingested during the specified timeframe. Up to 10 messages can be retrieved.

> ⚠️ **Important**
>
> The SampleChannelData operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
GET /channels/channelName/sample?
endTime=endTime&maxMessages=maxMessages&startTime=startTime HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

channelName

The name of the channel whose message samples are retrieved.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

endTime

The end of the time window from which sample messages are retrieved.

maxMessages

The number of sample messages to be retrieved. The limit is 10. The default is also 10.

Valid Range: Minimum value of 1. Maximum value of 10.

startTime

    The start of the time window from which sample messages are retrieved.

Request Body

The request does not have a request body.

Response Syntax

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

{
    "payloads": [ blob ]
}
```

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.

payloads

    The list of message samples. Each sample message is returned as a base64-encoded string.

    Type: Array of Base64-encoded binary data objects

    Array Members: Minimum number of 1 item. Maximum number of 10 items.

Errors

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

InternalFailureException

    There was an internal failure.

    HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

StartPipelineReprocessing

Starts the reprocessing of raw message data through the pipeline.

> ⚠ **Important**
>
> The StartPipelineReprocessing operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
POST /pipelines/pipelineName/reprocessing HTTP/1.1
Content-type: application/json

{
    "channelMessages": {
       "s3Paths": [ "string" ]
    },
    "endTime": number,
    "startTime": number
}
```

URI Request Parameters

The request uses the following URI parameters.

pipelineName

The name of the pipeline on which to start reprocessing.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request accepts the following data in JSON format.

channelMessages

Specifies one or more sets of channel messages that you want to reprocess.

If you use the `channelMessages` object, you must not specify a value for `startTime` and `endTime`.

Type: ChannelMessages object

Required: No

endTime

The end time (exclusive) of raw message data that is reprocessed.

If you specify a value for the `endTime` parameter, you must not use the `channelMessages` object.

Type: Timestamp

Required: No

startTime

The start time (inclusive) of raw message data that is reprocessed.

If you specify a value for the `startTime` parameter, you must not use the `channelMessages` object.

Type: Timestamp

Required: No

Response Syntax

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

{
    "reprocessingId": "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.

reprocessingId

The ID of the pipeline reprocessing activity that was started.

Type: String

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceAlreadyExistsException

A resource with the same name already exists.

HTTP Status Code: 409

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

TagResource

Adds to or modifies the tags of the given resource. Tags are metadata that can be used to manage a resource.

> ⚠️ **Important**
>
> The TagResource operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. [Learn more](#)

Request Syntax

```
POST /tags?resourceArn=resourceArn HTTP/1.1
Content-type: application/json

{
   "tags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The ARN of the resource whose tags you want to modify.

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

tags

The new or modified tags for the resource.

Type: Array of Tag objects

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

Required: Yes

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for Kotlin
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

UntagResource

Removes the given tags (metadata) from the resource.

> **⚠ Important**
>
> The UntagResource operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
DELETE /tags?resourceArn=resourceArn&tagKeys=tagKeys HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn

The ARN of the resource whose tags you want to remove.

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

Required: Yes

tagKeys

The keys of those tags which you want to remove.

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

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

UpdateChannel

Used to update the settings of a channel.

> ⚠️ **Important**
>
> The UpdateChannel operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
PUT /channels/channelName HTTP/1.1
Content-type: application/json

{
   "channelStorage": {
      "customerManagedS3": {
         "bucket": "string",
         "keyPrefix": "string",
         "roleArn": "string"
      },
      "serviceManagedS3": {
      }
   },
   "retentionPeriod": {
      "numberOfDays": number,
      "unlimited": boolean
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

channelName

The name of the channel to be updated.

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

Request Body

The request accepts the following data in JSON format.

channelStorage

Where channel data is stored. You can choose one of `serviceManagedS3` or `customerManagedS3` storage. If not specified, the default is `serviceManagedS3`. You can't change this storage option after the channel is created.

Type: ChannelStorage object

Required: No

retentionPeriod

How long, in days, message data is kept for the channel. The retention period can't be updated if the channel's Amazon S3 storage is customer-managed.

Type: RetentionPeriod object

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

UpdateDataset

Updates the settings of a dataset.

> ⚠️ **Important**
>
> The UpdateDataset operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
PUT /datasets/datasetName HTTP/1.1
Content-type: application/json

{
   "actions": [
      {
         "actionName": "string",
         "containerAction": {
            "executionRoleArn": "string",
            "image": "string",
            "resourceConfiguration": {
               "computeType": "string",
               "volumeSizeInGB": number
            },
            "variables": [
               {
                  "datasetContentVersionValue": {
                     "datasetName": "string"
                  },
                  "doubleValue": number,
                  "name": "string",
                  "outputFileUriValue": {
                     "fileName": "string"
                  },
                  "stringValue": "string"
               }
            ]
         },
         "queryAction": {
```

```
            "filters": [
                {
                    "deltaTime": {
                        "offsetSeconds": number,
                        "timeExpression": "string"
                    }
                }
            ],
            "sqlQuery": "string"
        }
    }
],
"contentDeliveryRules": [
    {
        "destination": {
            "iotEventsDestinationConfiguration": {
                "inputName": "string",
                "roleArn": "string"
            },
            "s3DestinationConfiguration": {
                "bucket": "string",
                "glueConfiguration": {
                    "databaseName": "string",
                    "tableName": "string"
                },
                "key": "string",
                "roleArn": "string"
            }
        },
        "entryName": "string"
    }
],
"lateDataRules": [
    {
        "ruleConfiguration": {
            "deltaTimeSessionWindowConfiguration": {
                "timeoutInMinutes": number
            }
        },
        "ruleName": "string"
    }
],
"retentionPeriod": {
    "numberOfDays": number,
```

```
        "unlimited": boolean
    },
    "triggers": [
        {
            "dataset": {
                "name": "string"
            },
            "schedule": {
                "expression": "string"
            }
        }
    ],
    "versioningConfiguration": {
        "maxVersions": number,
        "unlimited": boolean
    }
}
```

URI Request Parameters

The request uses the following URI parameters.

datasetName

The name of the dataset to update.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request accepts the following data in JSON format.

actions

A list of `DatasetAction` objects.

Type: Array of DatasetAction objects

Array Members: Fixed number of 1 item.

Required: Yes

contentDeliveryRules

When dataset contents are created, they are delivered to destinations specified here.

Type: Array of DatasetContentDeliveryRule objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

lateDataRules

A list of data rules that send notifications to CloudWatch, when data arrives late. To specify `lateDataRules`, the dataset must use a DeltaTimer filter.

Type: Array of LateDataRule objects

Array Members: Fixed number of 1 item.

Required: No

retentionPeriod

How long, in days, dataset contents are kept for the dataset.

Type: RetentionPeriod object

Required: No

triggers

A list of `DatasetTrigger` objects. The list can be empty or can contain up to five `DatasetTrigger` objects.

Type: Array of DatasetTrigger objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

versioningConfiguration

Optional. How many versions of dataset contents are kept. If not specified or set to null, only the latest version plus the latest succeeded version (if they are different) are kept for the time

period specified by the `retentionPeriod` parameter. For more information, see [Keeping Multiple Versions of Amazon IoT Analytics datasets](#) in the *Amazon IoT Analytics User Guide*.

Type: [VersioningConfiguration](#) object

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

UpdateDatastore

Used to update the settings of a data store.

> ⚠ **Important**
>
> The UpdateDatastore operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
PUT /datastores/datastoreName HTTP/1.1
Content-type: application/json

{
   "datastoreStorage": {
      "customerManagedS3": {
         "bucket": "string",
         "keyPrefix": "string",
         "roleArn": "string"
      },
      "iotSiteWiseMultiLayerStorage": {
         "customerManagedS3Storage": {
            "bucket": "string",
            "keyPrefix": "string"
         }
      },
      "serviceManagedS3": {
      }
   },
   "fileFormatConfiguration": {
      "jsonConfiguration": {
      },
      "parquetConfiguration": {
         "schemaDefinition": {
            "columns": [
               {
                  "name": "string",
                  "type": "string"
               }
```

```
                ]
            }
        }
    },
    "retentionPeriod": {
        "numberOfDays": number,
        "unlimited": boolean
    }
}
```

URI Request Parameters

The request uses the following URI parameters.

datastoreName

The name of the data store to be updated.

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: Yes

Request Body

The request accepts the following data in JSON format.

datastoreStorage

Where data in a data store is stored.. You can choose serviceManagedS3 storage,
customerManagedS3 storage, or iotSiteWiseMultiLayerStorage storage. The default is
serviceManagedS3. You can't change the choice of Amazon S3 storage after your data store is
created.

Type: DatastoreStorage object

Required: No

fileFormatConfiguration

Contains the configuration information of file formats. Amazon IoT Analytics data stores
support JSON and Parquet.

The default file format is JSON. You can specify only one format.

You can't change the file format after you create the data store.

Type: FileFormatConfiguration object

Required: No

retentionPeriod

How long, in days, message data is kept for the data store. The retention period can't be updated if the data store's Amazon S3 storage is customer-managed.

Type: RetentionPeriod object

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

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

UpdatePipeline

Updates the settings of a pipeline. You must specify both a `channel` and a `datastore` activity and, optionally, as many as 23 additional activities in the `pipelineActivities` array.

> ⚠️ **Important**
>
> The UpdatePipeline operation in Amazon IoT Analytics is no longer available to new customers. Existing customers of Amazon IoT Analytics can continue to use the service as normal. Learn more

Request Syntax

```
PUT /pipelines/pipelineName HTTP/1.1
Content-type: application/json

{
   "pipelineActivities": [
      {
         "addAttributes": {
            "attributes": {
               "string" : "string"
            },
            "name": "string",
            "next": "string"
         },
         "channel": {
            "channelName": "string",
            "name": "string",
            "next": "string"
         },
         "datastore": {
            "datastoreName": "string",
            "name": "string"
         },
         "deviceRegistryEnrich": {
            "attribute": "string",
            "name": "string",
            "next": "string",
            "roleArn": "string",
```

```
                "thingName": "string"
            },
            "deviceShadowEnrich": {
                "attribute": "string",
                "name": "string",
                "next": "string",
                "roleArn": "string",
                "thingName": "string"
            },
            "filter": {
                "filter": "string",
                "name": "string",
                "next": "string"
            },
            "lambda": {
                "batchSize": number,
                "lambdaName": "string",
                "name": "string",
                "next": "string"
            },
            "math": {
                "attribute": "string",
                "math": "string",
                "name": "string",
                "next": "string"
            },
            "removeAttributes": {
                "attributes": [ "string" ],
                "name": "string",
                "next": "string"
            },
            "selectAttributes": {
                "attributes": [ "string" ],
                "name": "string",
                "next": "string"
            }
        }
    ]
}
```

URI Request Parameters

The request uses the following URI parameters.

pipelineName

The name of the pipeline to update.

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

Request Body

The request accepts the following data in JSON format.

pipelineActivities

A list of `PipelineActivity` objects. Activities perform transformations on your messages, such as removing, renaming or adding message attributes; filtering messages based on attribute values; invoking your Lambda functions on messages for advanced processing; or performing mathematical transformations to normalize device data.

The list can be 2-25 `PipelineActivity` objects and must contain both a `channel` and a `datastore` activity. Each entry in the list must contain only one activity. For example:

`pipelineActivities = [ { "channel": { ... } }, { "lambda": { ... } }, ... ]`

Type: Array of PipelineActivity objects

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

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

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

Errors

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

InternalFailureException

There was an internal failure.

HTTP Status Code: 500

InvalidRequestException

The request was not valid.

HTTP Status Code: 400

LimitExceededException

The command caused an internal limit to be exceeded.

HTTP Status Code: 410

ResourceNotFoundException

A resource with the specified name could not be found.

HTTP Status Code: 404

ServiceUnavailableException

The service is temporarily unavailable.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

See Also

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

- Amazon Command Line Interface

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

Data Types

The Amazon IoT Analytics 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:

- AddAttributesActivity
- BatchPutMessageErrorEntry
- Channel
- ChannelActivity
- ChannelMessages
- ChannelStatistics
- ChannelStorage
- ChannelStorageSummary
- ChannelSummary
- Column
- ContainerDatasetAction
- CustomerManagedChannelS3Storage
- CustomerManagedChannelS3StorageSummary
- CustomerManagedDatastoreS3Storage
- CustomerManagedDatastoreS3StorageSummary
- Dataset
- DatasetAction
- DatasetActionSummary
- DatasetContentDeliveryDestination
- DatasetContentDeliveryRule

- DatasetContentStatus

- DatasetContentSummary

- DatasetContentVersionValue

- DatasetEntry

- DatasetSummary

- DatasetTrigger

- Datastore

- DatastoreActivity

- DatastoreIotSiteWiseMultiLayerStorage

- DatastoreIotSiteWiseMultiLayerStorageSummary

- DatastorePartition

- DatastorePartitions

- DatastoreStatistics

- DatastoreStorage

- DatastoreStorageSummary

- DatastoreSummary

- DeltaTime

- DeltaTimeSessionWindowConfiguration

- DeviceRegistryEnrichActivity

- DeviceShadowEnrichActivity

- EstimatedResourceSize

- FileFormatConfiguration

- FilterActivity

- GlueConfiguration

- IotEventsDestinationConfiguration

- IotSiteWiseCustomerManagedDatastoreS3Storage

- IotSiteWiseCustomerManagedDatastoreS3StorageSummary

- JsonConfiguration

- LambdaActivity

- LateDataRule

- [LateDataRuleConfiguration](#)
- [LoggingOptions](#)
- [MathActivity](#)
- [Message](#)
- [OutputFileUriValue](#)
- [ParquetConfiguration](#)
- [Partition](#)
- [Pipeline](#)
- [PipelineActivity](#)
- [PipelineSummary](#)
- [QueryFilter](#)
- [RemoveAttributesActivity](#)
- [ReprocessingSummary](#)
- [ResourceConfiguration](#)
- [RetentionPeriod](#)
- [S3DestinationConfiguration](#)
- [Schedule](#)
- [SchemaDefinition](#)
- [SelectAttributesActivity](#)
- [ServiceManagedChannelS3Storage](#)
- [ServiceManagedChannelS3StorageSummary](#)
- [ServiceManagedDatastoreS3Storage](#)
- [ServiceManagedDatastoreS3StorageSummary](#)
- [SqlQueryDatasetAction](#)
- [Tag](#)
- [TimestampPartition](#)
- [TriggeringDataset](#)
- [Variable](#)
- [VersioningConfiguration](#)

AddAttributesActivity

An activity that adds other attributes based on existing attributes in the message.

Contents

attributes

A list of 1-50 `AttributeNameMapping` objects that map an existing attribute to a new attribute.

> ⓘ **Note**
>
> The existing attributes remain in the message, so if you want to remove the originals, use `RemoveAttributeActivity`.

Type: String to string map

Map Entries: Maximum number of 50 items.

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

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

Required: Yes

name

The name of the addAttributes activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

BatchPutMessageErrorEntry

Contains informations about errors.

Contents

errorCode

The code associated with the error.

Type: String

Required: No

errorMessage

The message associated with the error.

Type: String

Required: No

messageId

The ID of the message that caused the error. See the value corresponding to the `messageId` key in the message object.

Type: String

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

Required: No

See Also

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

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

Channel

A collection of data from an MQTT topic. Channels archive the raw, unprocessed messages before publishing the data to a pipeline.

Contents

arn

The ARN of the channel.

Type: String

Required: No

creationTime

When the channel was created.

Type: Timestamp

Required: No

lastMessageArrivalTime

The last time when a new message arrived in the channel.

Amazon IoT Analytics updates this value at most once per minute for one channel. Hence, the `lastMessageArrivalTime` value is an approximation.

This feature only applies to messages that arrived in the data store after October 23, 2020.

Type: Timestamp

Required: No

lastUpdateTime

When the channel was last updated.

Type: Timestamp

Required: No

name

The name of the channel.

Type: String

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: No

retentionPeriod

How long, in days, message data is kept for the channel.

Type: [RetentionPeriod](#) object

Required: No

status

The status of the channel.

Type: String

Valid Values: CREATING | ACTIVE | DELETING

Required: No

storage

Where channel data is stored. You can choose one of `serviceManagedS3` or `customerManagedS3` storage. If not specified, the default is `serviceManagedS3`. You can't change this storage option after the channel is created.

Type: [ChannelStorage](#) object

Required: No

See Also

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

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

ChannelActivity

The activity that determines the source of the messages to be processed.

Contents

channelName

The name of the channel from which the messages are processed.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

name

The name of the channel activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

ChannelMessages

Specifies one or more sets of channel messages.

Contents

s3Paths

Specifies one or more keys that identify the Amazon Simple Storage Service (Amazon S3) objects that save your channel messages.

You must use the full path for the key.

Example path: `channel/mychannel/__dt=2020-02-29 00:00:00/1582940490000_1582940520000_123456789012_mychannel_0_2118.0.json.gz`

Type: Array of strings

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

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^[a-zA-Z0-9/_!'(){}\*\s\.\-\=\:]+$`

Required: No

See Also

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

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

ChannelStatistics

Statistics information about the channel.

Contents

size

The estimated size of the channel.

Type: [EstimatedResourceSize](#) object

Required: No

See Also

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

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

ChannelStorage

Where channel data is stored. You may choose one of `serviceManagedS3`, `customerManagedS3` storage. If not specified, the default is `serviceManagedS3`. This can't be changed after creation of the channel.

Contents

customerManagedS3

Used to store channel data in an S3 bucket that you manage. If customer managed storage is selected, the `retentionPeriod` parameter is ignored. You can't change the choice of S3 storage after the data store is created.

Type: [CustomerManagedChannelS3Storage](#) object

Required: No

serviceManagedS3

Used to store channel data in an S3 bucket managed by Amazon IoT Analytics. You can't change the choice of S3 storage after the data store is created.

Type: [ServiceManagedChannelS3Storage](#) object

Required: No

See Also

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

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

ChannelStorageSummary

Where channel data is stored.

Contents

customerManagedS3

Used to store channel data in an S3 bucket that you manage.

Type: [CustomerManagedChannelS3StorageSummary](#) object

Required: No

serviceManagedS3

Used to store channel data in an S3 bucket managed by Amazon IoT Analytics.

Type: [ServiceManagedChannelS3StorageSummary](#) object

Required: No

See Also

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

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

ChannelSummary

A summary of information about a channel.

Contents

channelName

The name of the channel.

Type: String

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

Pattern: (^(?!_{2}))(^[a-zA-Z0-9_]+$)

Required: No

channelStorage

Where channel data is stored.

Type: ChannelStorageSummary object

Required: No

creationTime

When the channel was created.

Type: Timestamp

Required: No

lastMessageArrivalTime

The last time when a new message arrived in the channel.

Amazon IoT Analytics updates this value at most once per minute for one channel. Hence, the `lastMessageArrivalTime` value is an approximation.

This feature only applies to messages that arrived in the data store after October 23, 2020.

Type: Timestamp

Required: No

lastUpdateTime

The last time the channel was updated.

Type: Timestamp

Required: No

status

The status of the channel.

Type: String

Valid Values: `CREATING | ACTIVE | DELETING`

Required: No

See Also

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

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

Column

Contains information about a column that stores your data.

Contents

name

The name of the column.

Type: String

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

Pattern: `^[A-Za-z_]([A-Za-z0-9]*|[A-Za-z0-9][A-Za-z0-9_]*)$`

Required: Yes

type

The type of data. For more information about the supported data types, see Common data types in the *Amazon Glue Developer Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 131072.

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

Required: Yes

See Also

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

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

ContainerDatasetAction

Information required to run the `containerAction` to produce dataset contents.

Contents

executionRoleArn

The ARN of the role that gives permission to the system to access required resources to run the `containerAction`. This includes, at minimum, permission to retrieve the dataset contents that are the input to the containerized application.

Type: String

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

Required: Yes

image

The ARN of the Docker container stored in your account. The Docker container contains an application and required support libraries and is used to generate dataset contents.

Type: String

Length Constraints: Maximum length of 255.

Required: Yes

resourceConfiguration

Configuration of the resource that executes the `containerAction`.

Type: [ResourceConfiguration](#) object

Required: Yes

variables

The values of variables used in the context of the execution of the containerized application (basically, parameters passed to the application). Each variable must have a name and a value given by one of `stringValue`, `datasetContentVersionValue`, or `outputFileUriValue`.

Type: Array of [Variable](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

See Also

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

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

CustomerManagedChannelS3Storage

Used to store channel data in an S3 bucket that you manage. If customer-managed storage is selected, the `retentionPeriod` parameter is ignored. You can't change the choice of S3 storage after the data store is created.

Contents

bucket

The name of the S3 bucket in which channel data is stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-zA-Z0-9.\-_]*$`

Required: Yes

roleArn

The ARN of the role that grants Amazon IoT Analytics permission to interact with your Amazon S3 resources.

Type: String

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

Required: Yes

keyPrefix

(Optional) The prefix used to create the keys of the channel data objects. Each object in an S3 bucket has a key that is its unique identifier in the bucket. Each object in a bucket has exactly one key. The prefix must end with a forward slash (/).

Type: String

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

Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*/$`

Required: No

See Also

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

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

CustomerManagedChannelS3StorageSummary

Used to store channel data in an S3 bucket that you manage.

Contents

bucket

The name of the S3 bucket in which channel data is stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-zA-Z0-9.\-_]*$`

Required: No

keyPrefix

(Optional) The prefix used to create the keys of the channel data objects. Each object in an S3 bucket has a key that is its unique identifier within the bucket (each object in a bucket has exactly one key). The prefix must end with a forward slash (/).

Type: String

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

Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*/$`

Required: No

roleArn

The ARN of the role that grants Amazon IoT Analytics permission to interact with your Amazon S3 resources.

Type: String

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

Required: No

See Also

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

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

CustomerManagedDatastoreS3Storage

S3-customer-managed; When you choose customer-managed storage, the `retentionPeriod` parameter is ignored. You can't change the choice of Amazon S3 storage after your data store is created.

Contents

bucket

   The name of the Amazon S3 bucket where your data is stored.

   Type: String

   Length Constraints: Minimum length of 3. Maximum length of 255.

   Pattern: `^[a-zA-Z0-9.\-_]*$`

   Required: Yes

roleArn

   The ARN of the role that grants Amazon IoT Analytics permission to interact with your Amazon S3 resources.

   Type: String

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

   Required: Yes

keyPrefix

   (Optional) The prefix used to create the keys of the data store data objects. Each object in an Amazon S3 bucket has a key that is its unique identifier in the bucket. Each object in a bucket has exactly one key. The prefix must end with a forward slash (/).

   Type: String

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

   Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*/$`

   Required: No

See Also

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

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

CustomerManagedDatastoreS3StorageSummary

Contains information about the data store that you manage.

Contents

bucket

The name of the Amazon S3 bucket where your data is stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-zA-Z0-9.\-_]*$`

Required: No

keyPrefix

(Optional) The prefix used to create the keys of the data store data objects. Each object in an Amazon S3 bucket has a key that is its unique identifier in the bucket. Each object in a bucket has exactly one key. The prefix must end with a forward slash (/).

Type: String

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

Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*/$`

Required: No

roleArn

The ARN of the role that grants Amazon IoT Analytics permission to interact with your Amazon S3 resources.

Type: String

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

Required: No

See Also

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

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

Dataset

Information about a dataset.

Contents

actions

The `DatasetAction` objects that automatically create the dataset contents.

Type: Array of [DatasetAction](#) objects

Array Members: Fixed number of 1 item.

Required: No

arn

The ARN of the dataset.

Type: String

Required: No

contentDeliveryRules

When dataset contents are created they are delivered to destinations specified here.

Type: Array of [DatasetContentDeliveryRule](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

creationTime

When the dataset was created.

Type: Timestamp

Required: No

lastUpdateTime

The last time the dataset was updated.

Type: Timestamp

Required: No

lateDataRules

A list of data rules that send notifications to CloudWatch, when data arrives late. To specify `lateDataRules`, the dataset must use a [DeltaTimer](#) filter.

Type: Array of [LateDataRule](#) objects

Array Members: Fixed number of 1 item.

Required: No

name

The name of the dataset.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: No

retentionPeriod

Optional. How long, in days, message data is kept for the dataset.

Type: [RetentionPeriod](#) object

Required: No

status

The status of the dataset.

Type: String

Valid Values: `CREATING | ACTIVE | DELETING`

Required: No

triggers

The `DatasetTrigger` objects that specify when the dataset is automatically updated.

Type: Array of [DatasetTrigger](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

versioningConfiguration

Optional. How many versions of dataset contents are kept. If not specified or set to null, only the latest version plus the latest succeeded version (if they are different) are kept for the time period specified by the `retentionPeriod` parameter. For more information, see [Keeping Multiple Versions of Amazon IoT Analytics datasets](#) in the *Amazon IoT Analytics User Guide*.

Type: [VersioningConfiguration](#) object

Required: No

See Also

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

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

DatasetAction

A `DatasetAction` object that specifies how dataset contents are automatically created.

Contents

actionName

The name of the dataset action by which dataset contents are automatically created.

Type: String

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

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

Required: No

containerAction

Information that allows the system to run a containerized application to create the dataset contents. The application must be in a Docker container along with any required support libraries.

Type: [ContainerDatasetAction](#) object

Required: No

queryAction

An `SqlQueryDatasetAction` object that uses an SQL query to automatically create dataset contents.

Type: [SqlQueryDatasetAction](#) object

Required: No

See Also

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

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

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

DatasetActionSummary

Information about the action that automatically creates the dataset's contents.

Contents

actionName

The name of the action that automatically creates the dataset's contents.

Type: String

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

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

Required: No

actionType

The type of action by which the dataset's contents are automatically created.

Type: String

Valid Values: `QUERY | CONTAINER`

Required: No

See Also

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

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

DatasetContentDeliveryDestination

The destination to which dataset contents are delivered.

Contents

iotEventsDestinationConfiguration

Configuration information for delivery of dataset contents to Amazon IoT Events.

Type: [IotEventsDestinationConfiguration](#) object

Required: No

s3DestinationConfiguration

Configuration information for delivery of dataset contents to Amazon S3.

Type: [S3DestinationConfiguration](#) object

Required: No

See Also

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

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

DatasetContentDeliveryRule

When dataset contents are created, they are delivered to destination specified here.

Contents

destination

The destination to which dataset contents are delivered.

Type: [DatasetContentDeliveryDestination](#) object

Required: Yes

entryName

The name of the dataset content delivery rules entry.

Type: String

Required: No

See Also

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

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

DatasetContentStatus

The state of the dataset contents and the reason they are in this state.

Contents

reason

The reason the dataset contents are in this state.

Type: String

Required: No

state

The state of the dataset contents. Can be one of READY, CREATING, SUCCEEDED, or FAILED.

Type: String

Valid Values: `CREATING | SUCCEEDED | FAILED`

Required: No

See Also

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

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

DatasetContentSummary

Summary information about dataset contents.

Contents

completionTime

The time the dataset content status was updated to SUCCEEDED or FAILED.

Type: Timestamp

Required: No

creationTime

The actual time the creation of the dataset contents was started.

Type: Timestamp

Required: No

scheduleTime

The time the creation of the dataset contents was scheduled to start.

Type: Timestamp

Required: No

status

The status of the dataset contents.

Type: DatasetContentStatus object

Required: No

version

The version of the dataset contents.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 36.

Required: No

See Also

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

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

DatasetContentVersionValue

The dataset whose latest contents are used as input to the notebook or application.

Contents

datasetName

The name of the dataset whose latest contents are used as input to the notebook or application.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

See Also

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

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

DatasetEntry

The reference to a dataset entry.

Contents

dataURI

The presigned URI of the dataset item.

Type: String

Required: No

entryName

The name of the dataset item.

Type: String

Required: No

See Also

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

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

DatasetSummary

A summary of information about a dataset.

Contents

actions

A list of `DataActionSummary` objects.

Type: Array of [DatasetActionSummary](#) objects

Array Members: Fixed number of 1 item.

Required: No

creationTime

The time the dataset was created.

Type: Timestamp

Required: No

datasetName

The name of the dataset.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: No

lastUpdateTime

The last time the dataset was updated.

Type: Timestamp

Required: No

status

The status of the dataset.

Type: String

Valid Values: `CREATING | ACTIVE | DELETING`

Required: No

triggers

A list of triggers. A trigger causes dataset content to be populated at a specified time interval or when another dataset is populated. The list of triggers can be empty or contain up to five `DataSetTrigger` objects

Type: Array of [DatasetTrigger](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

See Also

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

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

DatasetTrigger

The `DatasetTrigger` that specifies when the dataset is automatically updated.

Contents

dataset

The dataset whose content creation triggers the creation of this dataset's contents.

Type: [TriggeringDataset](#) object

Required: No

schedule

The Schedule when the trigger is initiated.

Type: [Schedule](#) object

Required: No

See Also

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

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

Datastore

Information about a data store.

Contents

arn

The ARN of the data store.

Type: String

Required: No

creationTime

When the data store was created.

Type: Timestamp

Required: No

datastorePartitions

Contains information about the partition dimensions in a data store.

Type: DatastorePartitions object

Required: No

fileFormatConfiguration

Contains the configuration information of file formats. Amazon IoT Analytics data stores support JSON and Parquet.

The default file format is JSON. You can specify only one format.

You can't change the file format after you create the data store.

Type: FileFormatConfiguration object

Required: No

lastMessageArrivalTime

The last time when a new message arrived in the data store.

Amazon IoT Analytics updates this value at most once per minute for Amazon Simple Storage Service one data store. Hence, the `lastMessageArrivalTime` value is an approximation.

This feature only applies to messages that arrived in the data store after October 23, 2020.

Type: Timestamp

Required: No

lastUpdateTime

The last time the data store was updated.

Type: Timestamp

Required: No

name

The name of the data store.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: No

retentionPeriod

How long, in days, message data is kept for the data store. When `customerManagedS3` storage is selected, this parameter is ignored.

Type: [RetentionPeriod](#) object

Required: No

status

The status of a data store:

CREATING

   The data store is being created.

ACTIVE

The data store has been created and can be used.

DELETING

The data store is being deleted.

Type: String

Valid Values: `CREATING | ACTIVE | DELETING`

Required: No

storage

Where data in a data store is stored.. You can choose `serviceManagedS3` storage, `customerManagedS3` storage, or `iotSiteWiseMultiLayerStorage` storage. The default is `serviceManagedS3`. You can't change the choice of Amazon S3 storage after your data store is created.

Type: DatastoreStorage object

Required: No

See Also

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

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

DatastoreActivity

The datastore activity that specifies where to store the processed data.

Contents

datastoreName

The name of the data store where processed messages are stored.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

name

The name of the datastore activity.

Type: String

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

Required: Yes

See Also

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

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

DatastoreIotSiteWiseMultiLayerStorage

Used to store data used by Amazon IoT SiteWise in an Amazon S3 bucket that you manage. You can't change the choice of Amazon S3 storage after your data store is created.

Contents

customerManagedS3Storage

Used to store data used by Amazon IoT SiteWise in an Amazon S3 bucket that you manage.

Type: IotSiteWiseCustomerManagedDatastoreS3Storage object

Required: Yes

See Also

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

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

DatastoreIotSiteWiseMultiLayerStorageSummary

Contains information about the data store that you manage, which stores data used by Amazon IoT SiteWise.

Contents

customerManagedS3Storage

Used to store data used by Amazon IoT SiteWise in an Amazon S3 bucket that you manage.

Type: IotSiteWiseCustomerManagedDatastoreS3StorageSummary object

Required: No

See Also

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

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

DatastorePartition

A single dimension to partition a data store. The dimension must be an `AttributePartition` or a `TimestampPartition`.

Contents

attributePartition

A partition dimension defined by an `attributeName`.

Type: [Partition](#) object

Required: No

timestampPartition

A partition dimension defined by a timestamp attribute.

Type: [TimestampPartition](#) object

Required: No

See Also

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

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

DatastorePartitions

Contains information about the partition dimensions in a data store.

Contents

partitions

A list of partition dimensions in a data store.

Type: Array of DatastorePartition objects

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

Required: No

See Also

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

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

DatastoreStatistics

Statistical information about the data store.

Contents

size

The estimated size of the data store.

Type: [EstimatedResourceSize](#) object

Required: No

See Also

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

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

DatastoreStorage

Where data in a data store is stored.. You can choose `serviceManagedS3` storage, `customerManagedS3` storage, or `iotSiteWiseMultiLayerStorage` storage. The default is `serviceManagedS3`. You can't change the choice of Amazon S3 storage after your data store is created.

Contents

customerManagedS3

S3-customer-managed; When you choose customer-managed storage, the `retentionPeriod` parameter is ignored. You can't change the choice of Amazon S3 storage after your data store is created.

Type: [CustomerManagedDatastoreS3Storage](#) object

Required: No

iotSiteWiseMultiLayerStorage

Used to store data used by Amazon IoT SiteWise in an Amazon S3 bucket that you manage. You can't change the choice of Amazon S3 storage after your data store is created.

Type: [DatastoreIotSiteWiseMultiLayerStorage](#) object

Required: No

serviceManagedS3

Used to store data in an Amazon S3 bucket managed by Amazon IoT Analytics. You can't change the choice of Amazon S3 storage after your data store is created.

Type: [ServiceManagedDatastoreS3Storage](#) object

Required: No

See Also

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

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

DatastoreStorageSummary

Contains information about your data store.

Contents

customerManagedS3

Used to store data in an Amazon S3 bucket managed by Amazon IoT Analytics.

Type: CustomerManagedDatastoreS3StorageSummary object

Required: No

iotSiteWiseMultiLayerStorage

Used to store data used by Amazon IoT SiteWise in an Amazon S3 bucket that you manage.

Type: DatastoreIotSiteWiseMultiLayerStorageSummary object

Required: No

serviceManagedS3

Used to store data in an Amazon S3 bucket managed by Amazon IoT Analytics.

Type: ServiceManagedDatastoreS3StorageSummary object

Required: No

See Also

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

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

DatastoreSummary

A summary of information about a data store.

Contents

creationTime

When the data store was created.

Type: Timestamp

Required: No

datastoreName

The name of the data store.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: No

datastorePartitions

Contains information about the partition dimensions in a data store.

Type: [DatastorePartitions](#) object

Required: No

datastoreStorage

Where data in a data store is stored.

Type: [DatastoreStorageSummary](#) object

Required: No

fileFormatType

The file format of the data in the data store.

Type: String

Valid Values: JSON | PARQUET

Required: No

lastMessageArrivalTime

The last time when a new message arrived in the data store.

Amazon IoT Analytics updates this value at most once per minute for Amazon Simple Storage Service one data store. Hence, the `lastMessageArrivalTime` value is an approximation.

This feature only applies to messages that arrived in the data store after October 23, 2020.

Type: Timestamp

Required: No

lastUpdateTime

The last time the data store was updated.

Type: Timestamp

Required: No

status

The status of the data store.

Type: String

Valid Values: CREATING | ACTIVE | DELETING

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

DeltaTime

Used to limit data to that which has arrived since the last execution of the action.

Contents

offsetSeconds

The number of seconds of estimated in-flight lag time of message data. When you create dataset contents using message data from a specified timeframe, some message data might still be in flight when processing begins, and so do not arrive in time to be processed. Use this field to make allowances for the in flight time of your message data, so that data not processed from a previous timeframe is included with the next timeframe. Otherwise, missed message data would be excluded from processing during the next timeframe too, because its timestamp places it within the previous timeframe.

Type: Integer

Required: Yes

timeExpression

An expression by which the time of the message data might be determined. This can be the name of a timestamp field or a SQL expression that is used to derive the time the message data was generated.

Type: String

Required: Yes

See Also

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

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

DeltaTimeSessionWindowConfiguration

A structure that contains the configuration information of a delta time session window.

`DeltaTime` specifies a time interval. You can use `DeltaTime` to create dataset contents with data that has arrived in the data store since the last execution. For an example of `DeltaTime`, see [Creating a SQL dataset with a delta window (CLI)](#) in the *Amazon IoT Analytics User Guide*.

Contents

timeoutInMinutes

A time interval. You can use `timeoutInMinutes` so that Amazon IoT Analytics can batch up late data notifications that have been generated since the last execution. Amazon IoT Analytics sends one batch of notifications to Amazon CloudWatch Events at one time.

For more information about how to write a timestamp expression, see [Date and Time Functions and Operators](#), in the *Presto 0.172 Documentation*.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60.

Required: Yes

See Also

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

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

DeviceRegistryEnrichActivity

An activity that adds data from the Amazon IoT device registry to your message.

Contents

attribute

The name of the attribute that is added to the message.

Type: String

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

Required: Yes

name

The name of the `deviceRegistryEnrich` activity.

Type: String

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

Required: Yes

roleArn

The ARN of the role that allows access to the device's registry information.

Type: String

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

Required: Yes

thingName

The name of the IoT device whose registry information is added to the message.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

DeviceShadowEnrichActivity

An activity that adds information from the Amazon IoT Device Shadow service to a message.

Contents

attribute

The name of the attribute that is added to the message.

Type: String

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

Required: Yes

name

The name of the `deviceShadowEnrich` activity.

Type: String

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

Required: Yes

roleArn

The ARN of the role that allows access to the device's shadow.

Type: String

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

Required: Yes

thingName

The name of the IoT device whose shadow information is added to the message.

Type: String

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

Required: Yes

next

> The next activity in the pipeline.
>
> Type: String
>
> Length Constraints: Minimum length of 1. Maximum length of 128.
>
> Required: No

See Also

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

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

EstimatedResourceSize

The estimated size of the resource.

Contents

estimatedOn

The time when the estimate of the size of the resource was made.

Type: Timestamp

Required: No

estimatedSizeInBytes

The estimated size of the resource, in bytes.

Type: Double

Required: No

See Also

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

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

FileFormatConfiguration

Contains the configuration information of file formats. Amazon IoT Analytics data stores support JSON and Parquet.

The default file format is JSON. You can specify only one format.

You can't change the file format after you create the data store.

Contents

jsonConfiguration

Contains the configuration information of the JSON format.

Type: JsonConfiguration object

Required: No

parquetConfiguration

Contains the configuration information of the Parquet format.

Type: ParquetConfiguration object

Required: No

See Also

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

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

FilterActivity

An activity that filters a message based on its attributes.

Contents

filter

An expression that looks like a SQL WHERE clause that must return a Boolean value. Messages that satisfy the condition are passed to the next activity.

Type: String

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

Required: Yes

name

The name of the filter activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

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

GlueConfiguration

Configuration information for coordination with Amazon Glue, a fully managed extract, transform and load (ETL) service.

Contents

databaseName

The name of the database in your Amazon Glue Data Catalog in which the table is located. An Amazon Glue Data Catalog database contains metadata tables.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 150.

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

Required: Yes

tableName

The name of the table in your Amazon Glue Data Catalog that is used to perform the ETL operations. An Amazon Glue Data Catalog table contains partitioned data and descriptions of data sources and targets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 150.

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

Required: Yes

See Also

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

- Amazon SDK for C++
- Amazon SDK for Java V2

- [Amazon SDK for Ruby V3](#)

IotEventsDestinationConfiguration

Configuration information for delivery of dataset contents to Amazon IoT Events.

Contents

inputName

The name of the Amazon IoT Events input to which dataset contents are delivered.

Type: String

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

Pattern: `^[a-zA-Z][a-zA-Z0-9_]*$`

Required: Yes

roleArn

The ARN of the role that grants Amazon IoT Analytics permission to deliver dataset contents to an Amazon IoT Events input.

Type: String

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

Required: Yes

See Also

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

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

IotSiteWiseCustomerManagedDatastoreS3Storage

Used to store data used by Amazon IoT SiteWise in an Amazon S3 bucket that you manage. You can't change the choice of Amazon S3 storage after your data store is created.

Contents

bucket

The name of the Amazon S3 bucket where your data is stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-zA-Z0-9.\-_]*$`

Required: Yes

keyPrefix

(Optional) The prefix used to create the keys of the data store data objects. Each object in an Amazon S3 bucket has a key that is its unique identifier in the bucket. Each object in a bucket has exactly one key. The prefix must end with a forward slash (/).

Type: String

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

Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*/$`

Required: No

See Also

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

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

IotSiteWiseCustomerManagedDatastoreS3StorageSummary

Contains information about the data store that you manage, which stores data used by Amazon IoT SiteWise.

Contents

bucket

The name of the Amazon S3 bucket where your data is stored.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-zA-Z0-9.\-_]*$`

Required: No

keyPrefix

(Optional) The prefix used to create the keys of the data store data objects. Each object in an Amazon S3 bucket has a key that is its unique identifier in the bucket. Each object in a bucket has exactly one key. The prefix must end with a forward slash (/).

Type: String

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

Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*/$`

Required: No

See Also

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

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

JsonConfiguration

Contains the configuration information of the JSON format.

Contents

The members of this exception structure are context-dependent.

See Also

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

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

LambdaActivity

An activity that runs a Lambda function to modify the message.

Contents

batchSize

The number of messages passed to the Lambda function for processing.

The Lambda function must be able to process all of these messages within five minutes, which is the maximum timeout duration for Lambda functions.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: Yes

lambdaName

The name of the Lambda function that is run on the message.

Type: String

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

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

Required: Yes

name

The name of the lambda activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

LateDataRule

A structure that contains the name and configuration information of a late data rule.

Contents

ruleConfiguration

The information needed to configure the late data rule.

Type: LateDataRuleConfiguration object

Required: Yes

ruleName

The name of the late data rule.

Type: String

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

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

Required: No

See Also

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

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

LateDataRuleConfiguration

The information needed to configure a delta time session window.

Contents

deltaTimeSessionWindowConfiguration

The information needed to configure a delta time session window.

Type: [DeltaTimeSessionWindowConfiguration](#) object

Required: No

See Also

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

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

LoggingOptions

Information about logging options.

Contents

enabled

If true, logging is enabled for Amazon IoT Analytics.

Type: Boolean

Required: Yes

level

The logging level. Currently, only ERROR is supported.

Type: String

Valid Values: ERROR

Required: Yes

roleArn

The ARN of the role that grants permission to Amazon IoT Analytics to perform logging.

Type: String

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

Required: Yes

See Also

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

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

MathActivity

An activity that computes an arithmetic expression using the message's attributes.

Contents

attribute

The name of the attribute that contains the result of the math operation.

Type: String

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

Required: Yes

math

An expression that uses one or more existing attributes and must return an integer value.

Type: String

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

Required: Yes

name

The name of the math activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

Message

Information about a message.

Contents

messageId

The ID you want to assign to the message. Each `messageId` must be unique within each batch sent.

Type: String

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

Required: Yes

payload

The payload of the message. This can be a JSON string or a base64-encoded string representing binary data, in which case you must decode it by means of a pipeline activity.

Type: Base64-encoded binary data object

Required: Yes

See Also

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

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

OutputFileUriValue

The value of the variable as a structure that specifies an output file URI.

Contents

fileName

The URI of the location where dataset contents are stored, usually the URI of a file in an S3 bucket.

Type: String

Pattern: `[\w\.-]{1,255}`

Required: Yes

See Also

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

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

ParquetConfiguration

Contains the configuration information of the Parquet format.

Contents

schemaDefinition

Information needed to define a schema.

Type: [SchemaDefinition](#) object

Required: No

See Also

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

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

Partition

A partition dimension defined by an attribute.

Contents

attributeName

The name of the attribute that defines a partition dimension.

Type: String

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

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

Required: Yes

See Also

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

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

Pipeline

Contains information about a pipeline.

Contents

activities

The activities that perform transformations on the messages.

Type: Array of [PipelineActivity](#) objects

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

Required: No

arn

The ARN of the pipeline.

Type: String

Required: No

creationTime

When the pipeline was created.

Type: Timestamp

Required: No

lastUpdateTime

The last time the pipeline was updated.

Type: Timestamp

Required: No

name

The name of the pipeline.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: No

reprocessingSummaries

A summary of information about the pipeline reprocessing.

Type: Array of [ReprocessingSummary](#) objects

Required: No

See Also

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

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

PipelineActivity

An activity that performs a transformation on a message.

Contents

addAttributes

Adds other attributes based on existing attributes in the message.

Type: AddAttributesActivity object

Required: No

channel

Determines the source of the messages to be processed.

Type: ChannelActivity object

Required: No

datastore

Specifies where to store the processed message data.

Type: DatastoreActivity object

Required: No

deviceRegistryEnrich

Adds data from the Amazon IoT device registry to your message.

Type: DeviceRegistryEnrichActivity object

Required: No

deviceShadowEnrich

Adds information from the Amazon IoT Device Shadow service to a message.

Type: DeviceShadowEnrichActivity object

Required: No

filter

    Filters a message based on its attributes.

    Type: [FilterActivity](#) object

    Required: No

lambda

    Runs a Lambda function to modify the message.

    Type: [LambdaActivity](#) object

    Required: No

math

    Computes an arithmetic expression using the message's attributes and adds it to the message.

    Type: [MathActivity](#) object

    Required: No

removeAttributes

    Removes attributes from a message.

    Type: [RemoveAttributesActivity](#) object

    Required: No

selectAttributes

    Used to create a new message using only the specified attributes from the original message.

    Type: [SelectAttributesActivity](#) object

    Required: No

See Also

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

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

PipelineSummary

A summary of information about a pipeline.

Contents

creationTime

When the pipeline was created.

Type: Timestamp

Required: No

lastUpdateTime

When the pipeline was last updated.

Type: Timestamp

Required: No

pipelineName

The name of the pipeline.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: No

reprocessingSummaries

A summary of information about the pipeline reprocessing.

Type: Array of ReprocessingSummary objects

Required: No

See Also

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

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

QueryFilter

Information that is used to filter message data, to segregate it according to the timeframe in which it arrives.

Contents

deltaTime

Used to limit data to that which has arrived since the last execution of the action.

Type: DeltaTime object

Required: No

See Also

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

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

RemoveAttributesActivity

An activity that removes attributes from a message.

Contents

attributes

A list of 1-50 attributes to remove from the message.

Type: Array of strings

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

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

Required: Yes

name

The name of the `removeAttributes` activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

ReprocessingSummary

Information about pipeline reprocessing.

Contents

creationTime

   The time the pipeline reprocessing was created.

   Type: Timestamp

   Required: No

id

   The `reprocessingId` returned by `StartPipelineReprocessing`.

   Type: String

   Required: No

status

   The status of the pipeline reprocessing.

   Type: String

   Valid Values: `RUNNING | SUCCEEDED | CANCELLED | FAILED`

   Required: No

See Also

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

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

ResourceConfiguration

The configuration of the resource used to execute the `containerAction`.

Contents

computeType

The type of the compute resource used to execute the `containerAction`. Possible values are: ACU_1 (vCPU=4, memory=16 GiB) or ACU_2 (vCPU=8, memory=32 GiB).

Type: String

Valid Values: ACU_1 | ACU_2

Required: Yes

volumeSizeInGB

The size, in GB, of the persistent storage available to the resource instance used to execute the `containerAction` (min: 1, max: 50).

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: Yes

See Also

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

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

RetentionPeriod

How long, in days, message data is kept.

Contents

numberOfDays

The number of days that message data is kept. The `unlimited` parameter must be false.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

unlimited

If true, message data is kept indefinitely.

Type: Boolean

Required: No

See Also

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

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

S3DestinationConfiguration

Configuration information for delivery of dataset contents to Amazon Simple Storage Service (Amazon S3).

Contents

bucket

The name of the S3 bucket to which dataset contents are delivered.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-zA-Z0-9.\-_]*$`

Required: Yes

key

The key of the dataset contents object in an S3 bucket. Each object has a key that is a unique identifier. Each object has exactly one key.

You can create a unique key with the following options:

- Use `!{iotanalytics:scheduleTime}` to insert the time of a scheduled SQL query run.
- Use `!{iotanalytics:versionId}` to insert a unique hash that identifies a dataset content.
- Use `!{iotanalytics:creationTime}` to insert the creation time of a dataset content.

The following example creates a unique key for a CSV file: `dataset/mydataset/!{iotanalytics:scheduleTime}/!{iotanalytics:versionId}.csv`

> **ⓘ Note**
>
> If you don't use `!{iotanalytics:versionId}` to specify the key, you might get duplicate keys. For example, you might have two dataset contents with the same `scheduleTime` but different `versionIds`. This means that one dataset content overwrites the other.

Type: String

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

Pattern: `^[a-zA-Z0-9!_.*'()/{}:-]*$`

Required: Yes

roleArn

The ARN of the role that grants Amazon IoT Analytics permission to interact with your Amazon S3 and Amazon Glue resources.

Type: String

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

Required: Yes

glueConfiguration

Configuration information for coordination with Amazon Glue, a fully managed extract, transform and load (ETL) service.

Type: [GlueConfiguration](#) object

Required: No

See Also

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

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

Schedule

The schedule for when to trigger an update.

Contents

expression

The expression that defines when to trigger an update. For more information, see Schedule Expressions for Rules in the *Amazon CloudWatch Events User Guide*.

Type: String

Required: No

See Also

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

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

SchemaDefinition

Information needed to define a schema.

Contents

columns

Specifies one or more columns that store your data.

Each schema can have up to 100 columns. Each column can have up to 100 nested types.

Type: Array of [Column](#) objects

Required: No

See Also

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

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

SelectAttributesActivity

Used to create a new message using only the specified attributes from the original message.

Contents

attributes

A list of the attributes to select from the message.

Type: Array of strings

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

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

Required: Yes

name

The name of the `selectAttributes` activity.

Type: String

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

Required: Yes

next

The next activity in the pipeline.

Type: String

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

Required: No

See Also

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

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

ServiceManagedChannelS3Storage

Used to store channel data in an S3 bucket managed by Amazon IoT Analytics. You can't change the choice of S3 storage after the data store is created.

Contents

The members of this exception structure are context-dependent.

See Also

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

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

ServiceManagedChannelS3StorageSummary

Used to store channel data in an S3 bucket managed by Amazon IoT Analytics.

Contents

The members of this exception structure are context-dependent.

See Also

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

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

ServiceManagedDatastoreS3Storage

Used to store data in an Amazon S3 bucket managed by Amazon IoT Analytics. You can't change the choice of Amazon S3 storage after your data store is created.

Contents

The members of this exception structure are context-dependent.

See Also

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

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

ServiceManagedDatastoreS3StorageSummary

Contains information about the data store that is managed by Amazon IoT Analytics.

Contents

The members of this exception structure are context-dependent.

See Also

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

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

SqlQueryDatasetAction

The SQL query to modify the message.

Contents

sqlQuery

A SQL query string.

Type: String

Required: Yes

filters

Prefilters applied to message data.

Type: Array of QueryFilter objects

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Required: No

See Also

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

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

Tag

A set of key-value pairs that are used to manage the resource.

Contents

key

The tag's key.

Type: String

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

Required: Yes

value

The tag's value.

Type: String

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

Required: Yes

See Also

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

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

TimestampPartition

A partition dimension defined by a timestamp attribute.

Contents

attributeName

The attribute name of the partition defined by a timestamp.

Type: String

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

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

Required: Yes

timestampFormat

The timestamp format of a partition defined by a timestamp. The default format is seconds since epoch (January 1, 1970 at midnight UTC time).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[a-zA-Z0-9\s\[\]_,.'/:-]*$`

Required: No

See Also

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

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

TriggeringDataset

Information about the dataset whose content generation triggers the new dataset content generation.

Contents

name

The name of the dataset whose content generation triggers the new dataset content generation.

Type: String

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

Pattern: `(^(?!_{2}))(^[a-zA-Z0-9_]+$)`

Required: Yes

See Also

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

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

Variable

An instance of a variable to be passed to the `containerAction` execution. Each variable must have a name and a value given by one of `stringValue`, `datasetContentVersionValue`, or `outputFileUriValue`.

Contents

name

The name of the variable.

Type: String

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

Required: Yes

datasetContentVersionValue

The value of the variable as a structure that specifies a dataset content version.

Type: [DatasetContentVersionValue](#) object

Required: No

doubleValue

The value of the variable as a double (numeric).

Type: Double

Required: No

outputFileUriValue

The value of the variable as a structure that specifies an output file URI.

Type: [OutputFileUriValue](#) object

Required: No

stringValue

The value of the variable as a string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

See Also

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

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

VersioningConfiguration

Information about the versioning of dataset contents.

Contents

maxVersions

How many versions of dataset contents are kept. The `unlimited` parameter must be `false`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

unlimited

If true, unlimited versions of dataset contents are kept.

Type: Boolean

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon 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 Amazon 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 Amazon 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 Amazon 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 Amazon Security Token Service (Amazon STS). For a list of services that support temporary security credentials from Amazon STS, see Amazon Web Services services that work with IAM in the *IAM User Guide.*

Condition: If you're using temporary security credentials from Amazon 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 Amazon 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 Amazon 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 Amazon 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 Amazon 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 Amazon 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 Amazon service.

HTTP Status Code: 400