S3
Put
Create

Dynamo
DB
Trigger

SQS

CreditCard
Transaction
Queue

Push

Lambda

Transaction
Processing
Lambda

Handler

Create New Queue
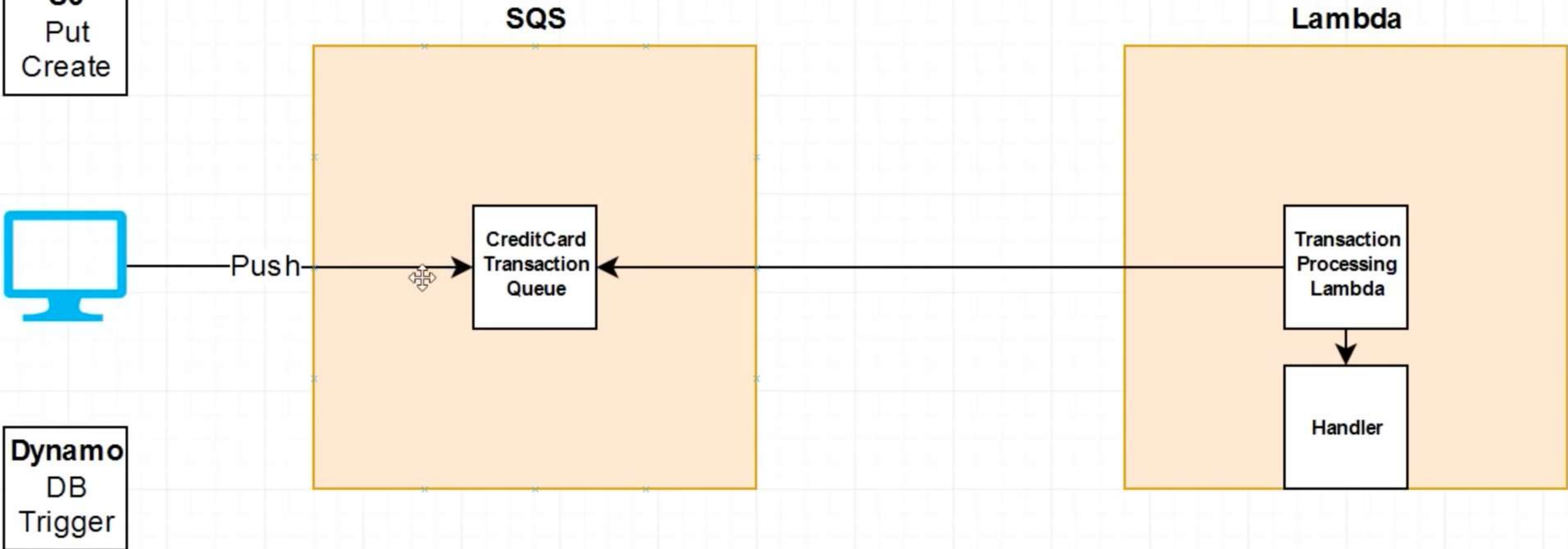
What do you want to name your queue?

Queue Name ⓘ

CreditCardTransactionQueue

Region ⓘ   US East (N. Virginia)

What type of queue do you need?

Standard Queue

FIFO Queue

Unlimited Throughput: Standard queues support a nearly unlimited number of transactions per second (TPS) per API action.

At-Least-Once Delivery: A message is delivered at least once, but occasionally more than one copy of a message is delivered.

Best-Effort Ordering: Occasionally, messages might be delivered in an order different from which they were sent.
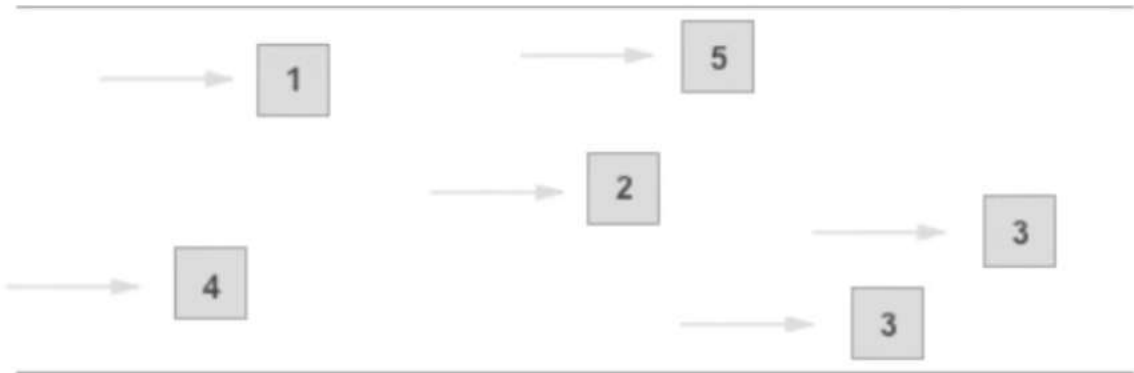
High Throughput: FIFO queues support up to 300 messages per second (300 send, receive, or delete operations per second). When you batch 10 messages per operation (maximum), FIFO queues can support up to 3,000 messages per second. To request a limit increase, file a support request.

First-In-First-out Delivery: The order in which messages are sent and received is strictly preserved.

Exactly-Once Processing: A message is delivered once and remains available until a consumer processes and deletes it. Duplicates are not introduced into the queue.

For more information, see the Amazon SQS FAQs and the *Amazon SQS Developer Guide.*

You can change these default parameters.

Queue Attributes

Default Visibility Timeout ⓘ `30` `seconds ▾` Value must be between 0 seconds and 12 hours.

Message Retention Period ⓘ `4` `days ▾` Value must be between 1 minute and 14 days.

Maximum Message Size ⓘ `256` KB Value must be between 1 and 256 KB.

Delivery Delay ⓘ `0` `seconds ▾` Value must be between 0 seconds and 15 minutes.

Receive Message Wait Time ⓘ `0` seconds Value must be between 0 and 20 seconds.

Dead Letter Queue Settings

Use Redrive Policy ⓘ ☐

Dead Letter Queue ⓘ _____ Value must be an existing queue name.

Maximum Receives ⓘ ____ Value must be between 1 and 1000.

Server-Side Encryption (SSE) Settings

Use SSE ⓘ ☐

AWS KMS Customer Master Key (CMK) ⓘ ▾

Data Key Reuse Period ⓘ _____ ▾ This value must be between 1 minute and 24 hours.

Cancel **Create Queue**

Create New Queue   Queue Actions ▾   ⟳   ⚙

Filter by Prefix: 🔍 Enter Text...   ✕   ⏮ ◀ 1 to 1 of 1 items ▶ ⏭

☑	Name		Queue Type ▾	Content-Based Deduplication ▾	Messages Available ▾	Messages in Flight ▾	Created	▾
☑	CreditCardTransactionQueue	▾	Standard	N/A	0	0	2019-08-08 19:53:20 GMT-04:00	

1 SQS Queue selected   ▭ ▭ ▤

Details	**Permissions**	Redrive Policy	Monitoring	Tags	Encryption	Lambda Triggers

Add a Permission   Edit Policy Document (Advanced)   What's an SQS Queue Access Policy?

Effect	Principals	Actions	Conditions
This queue has an empty SQS Queue Access Policy. This means that only the queue owner is allowed to use it. You can **Add a Permission** to grant another account access to this queue.			

1 SQS Queue selected

| Details | Permissions | Redrive Policy | **Monitoring** | Tags | Encryption | Lambda Triggers |

SQS metrics

Below are your CloudWatch metrics for the selected resources (maximum of 10). Click on a graph to see an expanded view. All times shown are in UTC. View all CloudWatch metrics

Legend: 🟦 CreditCardTransactionQueue

NumberOfMessagesSent (Count) ⓘ

NumberOfMessagesReceived (Count) ⓘ

NumberOfEmptyReceives (Count) ⓘ

NumberOfMessagesDeleted (Count) ⓘ

ApproximateNumberOfMessagesVisible (Count) ⓘ

ApproximateNumberOfMessagesNotVisible (Count) ⓘ

ApproximateNumberOfMessagesDelayed (Count) ⓘ

SentMessageSize (Bytes) ⓘ

ApproximateAgeOfOldestMessage (Seconds) ⓘ

Create function Info

Choose one of the following options to create your function.

Author from scratch ○	Use a blueprint ●	Browse serverless app repository ○
Start with a simple Hello World example.	Build a Lambda application from sample code and configuration presets for common use cases.	Deploy a sample Lambda application from the AWS Serverless Application Repository.

Blueprints Info

Export

🔍 Filter by tags and attributes or search by keyword   [?]   ‹ 1 2 3 4 5 6 7 ›

kinesis-firehose-syslog-to-json ○

An Amazon Kinesis Firehose stream processor that converts input records from RFC3164 Syslog format to JSON.

nodejs8.10 · kinesis-firehose

logicmonitor-send-cloudwatch-events ○

Creates LogicMonitor OpsNotes for CloudWatch Events, thereby enabling correlation between events and performance data.

python · cloudwatch-events · monitoring · eventstream · ext-libraries

batch-get-job-python27 ○

Returns the current status of an AWS Batch Job.

python2.7 · batch

cloudfront-modify-response-header ○

Blueprint for modifying CloudFront response header implemented in NodeJS.

nodejs · cloudfront · response header

s3-get-object-python ○

An Amazon S3 trigger that retrieves metadata for the object that has been updated.

python3.7 · s3

config-rule-change-triggered ○

An AWS Config rule that is triggered by configuration changes to EC2 instances.

lex-book-trip-python ○

Book details of a visit, using Amazon Lex to perform natural language understanding

dynamodb-process-stream ○

An Amazon DynamoDB trigger that logs the updates made to a table.

microservice-http-endpoint ○

A simple backend (read/write to DynamoDB) with a RESTful API endpoint using Amazon

kinesis-analytics-output ○

Deliver output records from Kinesis Analytics application to custom destination.

Basic information Info

Function name

```
TransactionProcessor
```

Execution role

Choose a role that defines the permissions of your function. To create a custom role, go to the **IAM console**.

```
Create a new role with basic Lambda permissions                           ▼
```

> ⓘ Role creation might take a few minutes. The new role will be scoped to the current function. To use it with other functions, you can modify it in the IAM console.

Lambda will create an execution role named TransactionProcessor-role-h8o4g6d9, with permission to upload logs to Amazon CloudWatch Logs.

SQS trigger   [Remove]

SQS queue

Select an SQS queue to listen for updates on.

```
🔍  arn:aws:sqs:us-east-1:398447858632:CreditCardTransactionQueue      ✕
```

Batch size

The largest number of records that will be read from your queue at once.

```
10                                                                      ⇕
```

In order to read from the SQS trigger, your execution role must have proper permissions.

☐ **Enable trigger**

Enable the trigger now, or create it in a disabled state for testing (recommended).

SQS trigger

Remove

SQS queue

Select an SQS queue to listen for updates on.

Q arn:aws:sqs:us-east-1:398447858632:CreditCardTransactionQueue   ✕

Batch size

The largest number of records that will be read from your queue at once.

10   ⬍

In order to read from the SQS trigger, your execution role must have proper permissions.

☐ Enable trigger

Enable the trigger now, or create it in a disabled state for testing (recommended).

Lambda function code

Code is pre-configured by the chosen blueprint. You can configure it after you create the function. **Learn more** about deploying Lambda functions.

Runtime

Node.js 8.10

```
1    console.log('Loading function');
2
3  ▾ exports.handler = async (event) => {
4        //console.log('Received event:', JSON.stringify(event, null, 2));
5  ▾     for (const { messageId, body } of event.Records) {
6            console.log('SQS message %s: %j', messageId, body);
7        }
8        return `Successfully processed ${event.Records.length} messages.`;
9    };
10
```

View the **SQSRole role** on the IAM console.

Timeout Info

0 ⇕ min 3 ⇕ sec

Network

Debugging and error handling

Virtual Private Cloud (VPC) Info

Choose a VPC for your function to access.

No VPC ▼

DLQ resource Info

Choose the AWS service to send the event payload to after maximum retries are exceeded.

None ▼

Enable AWS X-Ray Info

Enable AWS X-Ray to trace and monitor capabilities for your Lambda function

☐

Concurrency

Unreserved account concurrency 1000

◉ Use unreserved account concurrency

◯ Reserve concurrency

⇕

Auditing and compliance

AWS CloudTrail can log this function's invocations for operational and risk auditing, governance, and compliance. Get started on the CloudTrail console.

1 SQS Queue selected

| Details | Permissions | Redrive Policy | **Monitoring** | Tags | Encryption | Lambda Triggers |

SQS metrics

Below are your CloudWatch metrics for the selected resources (maximum of 10). Click on a graph to see an expanded view. All times shown are in UTC. View all CloudWatch metrics

Legend: ▢ CreditCardTransactonQueue
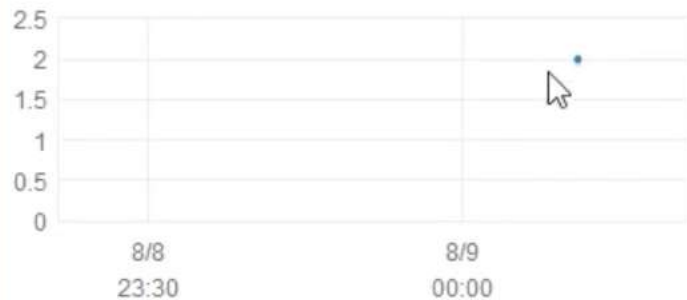
NumberOfMessagesSent (Count) ℹ

NumberOfMessagesReceived (Count) ℹ

NumberOfEmptyReceives (Count) ℹ

NumberOfMessagesDeleted (Count) ℹ

ApproximateNumberOfMessagesVisible (Count) ℹ

ApproximateNumberOfMessagesNotVisible (Count) ℹ
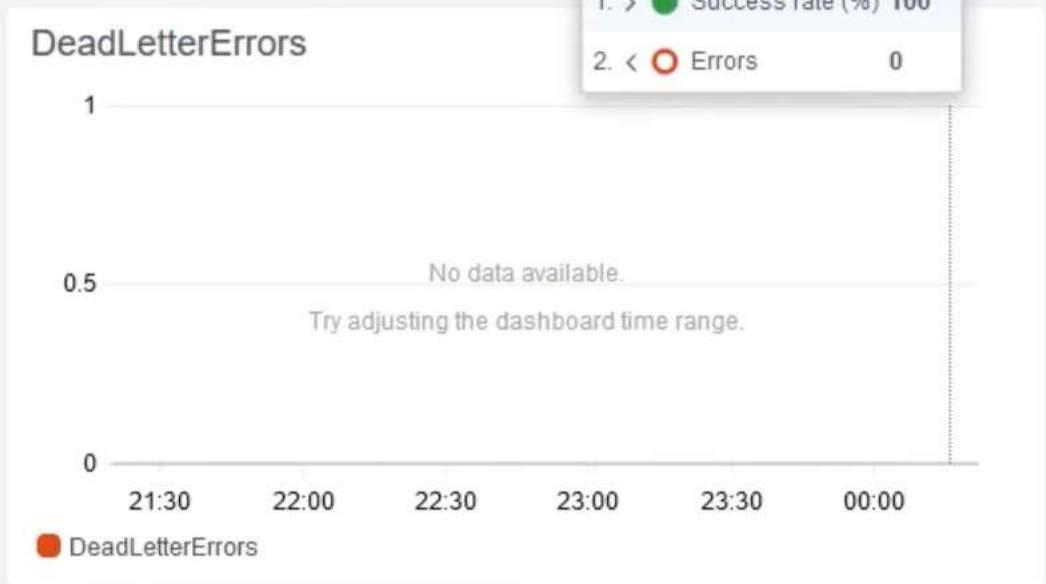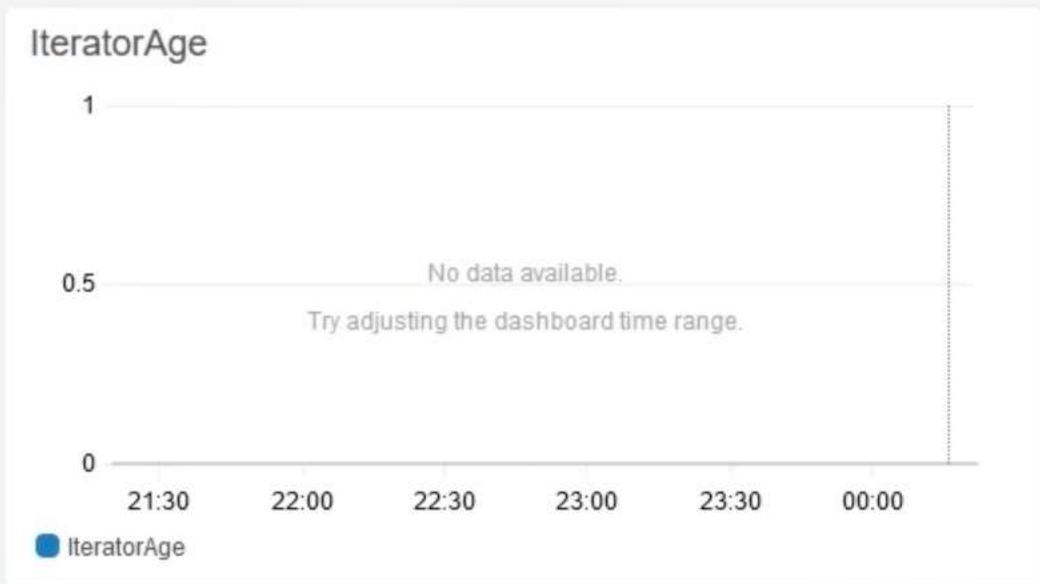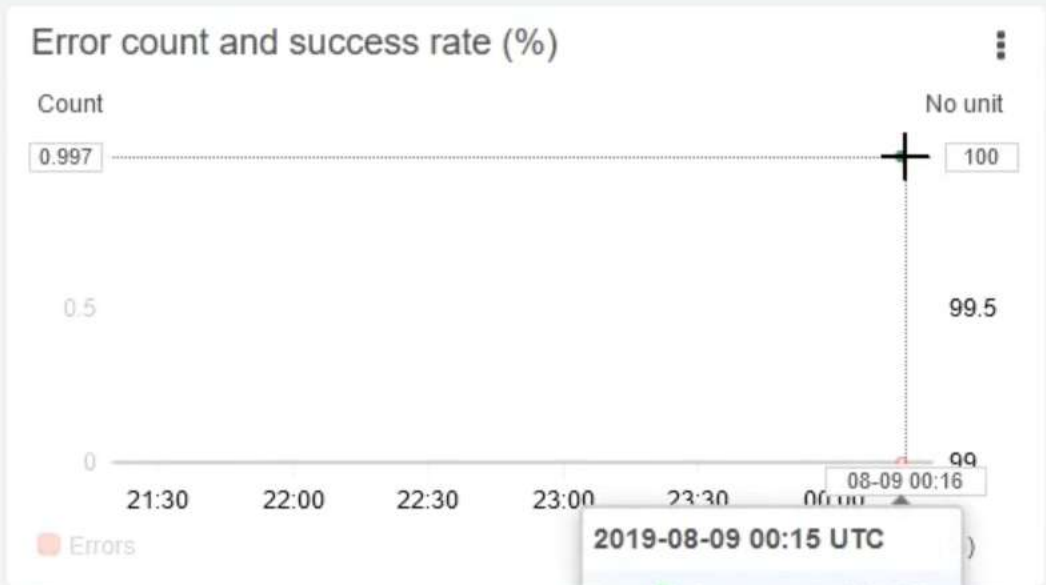
ApproximateNumberOfMessagesDelayed (Count) ℹ

SentMessageSize (Bytes) ℹ

ApproximateAgeOfOldestMessage (Seconds) ℹ

Throttle   Qualifiers ▼   Actions ▼   Select a test event   ▼   Test   Save

Add to dashboard   1h   3h   12h   1d   3d   1w   custom ▾   ⟳ ▾

Invocations

Count

2

1

0
   21:30   22:00   22:30   23:00   23:30   00:00

● Invocations

Duration

Milliseconds

29.1

29

29
   21:30   22:00   22:30   23:00   23:30   00:00

● Duration Minimum   ● Duration Average   ● Duration Maximum

Error count and success rate (%)

⋮

Count   No unit

0.997   100

0.5   99.5

0   99
   21:30   22:00   22:30   23:00   23:30   00:00

08-09 00:16

2019-08-09 00:15 UTC

1. ﹥ ● Success rate (%) **100**

2. ﹤ ◯ Errors   **0**

● Errors

Throttles

Count

1

0.5

0
   21:30   22:00   22:30   23:00   23:30   00:00

● Throttles

IteratorAge

1

0.5

0
   21:30   22:00   22:30   23:00   23:30   00:00

No data available.

Try adjusting the dashboard time range.

● IteratorAge

DeadLetterErrors

1

0.5

0
   21:30   22:00   22:30   23:00   23:30   00:00

No data available.

Try adjusting the dashboard time range.

● DeadLetterErrors

CloudWatch

Dashboards

Alarms ◀

ALARM ⓪

INSUFFICIENT ⓪

OK ⓪

Billing

Events

Rules

Event Buses

Logs

Insights

Metrics

Settings

Favorites

ⓘ **Try CloudWatch Logs Insights**

CloudWatch Logs Insights allows you to search and analyze your logs using a new, purpose-built query language. Click here to experience it. If you want to learn more, read the AWS

Filter events

Time (UTC +00:00)	Message
2019-08-09	
	No older events found at the moment. Retry.
▶ 00:17:14	2019-08-09T00:17:14.452Z 91cdd413-143a-5d03-ac6f-81d5a9f0a7a3 Loading function
▶ 00:17:14	START RequestId: 91cdd413-143a-5d03-ac6f-81d5a9f0a7a3 Version: $LATEST
▶ 00:17:14	2019-08-09T00:17:14.454Z 91cdd413-143a-5d03-ac6f-81d5a9f0a7a3 SQS message 9dfbb38c-1515-4dea-b0c0-2fe9e673397d: "12345"
▶ 00:17:14	END RequestId: 91cdd413-143a-5d03-ac6f-81d5a9f0a7a3
▶ 00:17:14	REPORT RequestId: 91cdd413-143a-5d03-ac6f-81d5a9f0a7a3 Duration: 38.86 ms Billed Duration: 100 ms Memory Size: 128 MB Max Memory Used: 56 MB
	No newer events found at the moment. Retry.