AWS Simple Queue Service (SQS)

SQS :

- Types of queue :
  - Standard
    - At-least once delivery
    - Best-effort ordering
  - FIFO
    - First-in-first-out delivery
    - Exactly-once processing

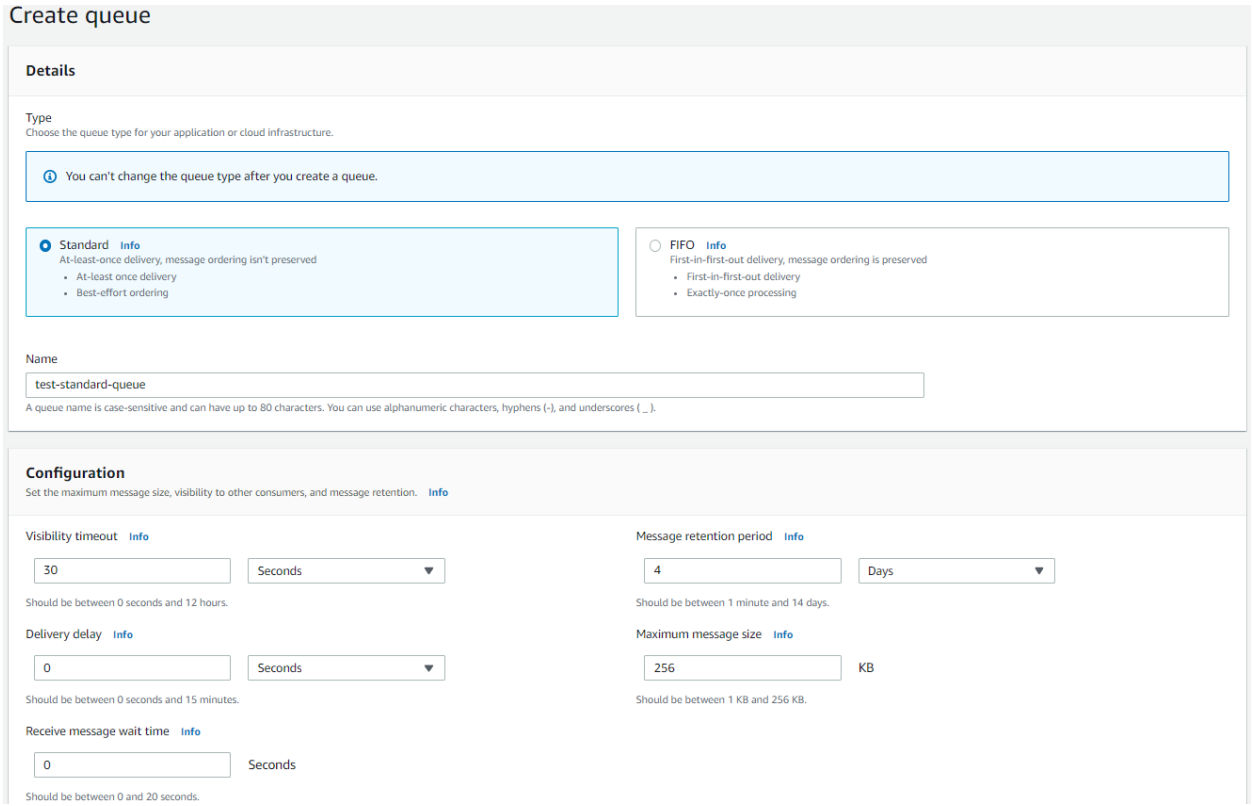
Configuration :

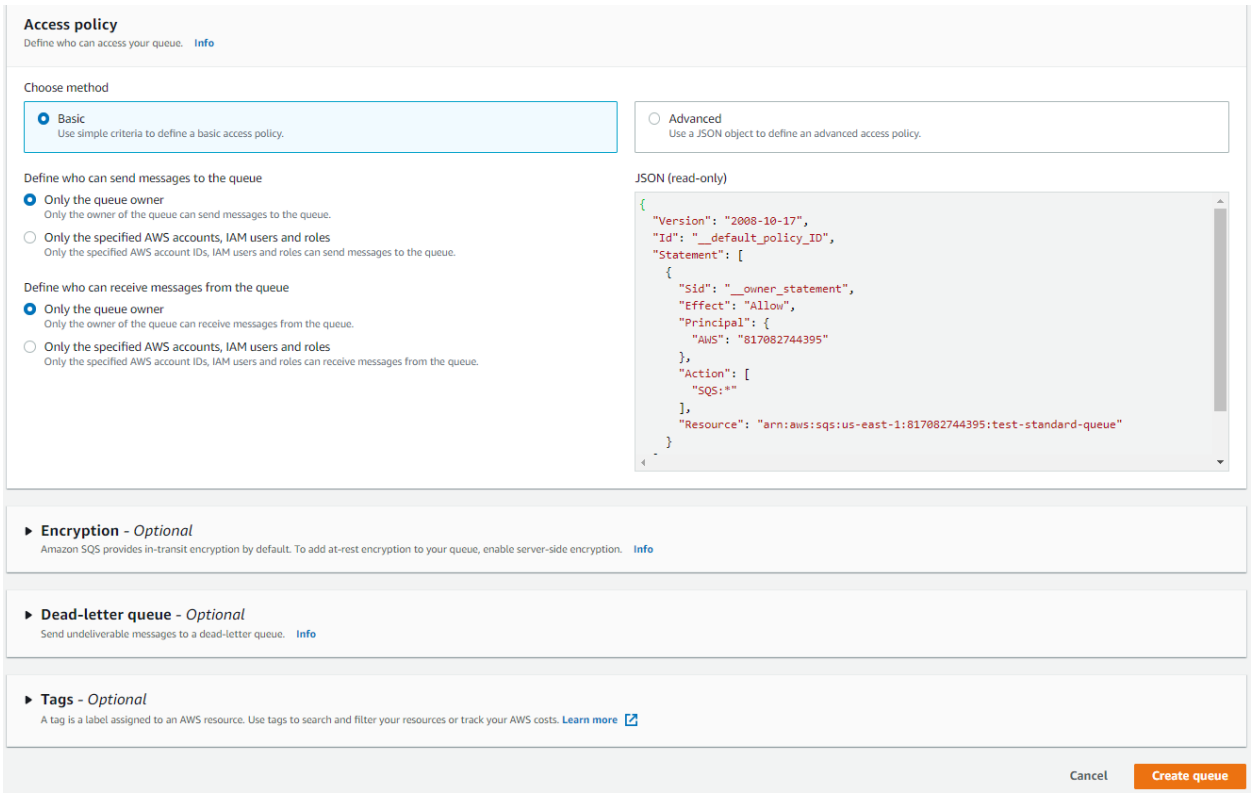
- Visibility timeout :
  - The amount of time that a message received from a queue (by one consumer) will not be visible to the other message consumers
  - The default visibility timeout setting is 30 seconds. This setting applies to all messages in the queue
  - Typically, you should set the visibility timeout to the maximum time that it takes your application to process and delete a message from the queue
- Message retention period :
  - The amount of time that SQS retains a message before it get deleted
  - SQS automatically deletes messages when it reached to the retention period
  - The default retention period is 4 days. The retention period has a range of 60 seconds to 1,209,600 seconds (14 days)
  - The expiration of a message is always based on its original enqueue timestamp. When a message is moved to a dead-letter queue, the enqueue timestamp remains unchanged
  - For example, if a message spends 1 day in the original queue before being moved to a dead-letter queue, and the retention period of the dead-letter queue is set to 4 days, the message is deleted from the dead-letter queue after 3 days
- Delivery delay :
  - The amount of time to delay the first delivery of each message added to the queue
  - Any messages that you send to the queue remain invisible to consumers for the duration of the delay period
  - Default (minimum) delay for a queue is 0 seconds. The maximum is 15 minutes
  - When consumers need additional time to process messages, you can delay each new message coming to the queue
- Maximum message size :
  - The smallest supported message size is 1 byte (1 character). The largest size is 262,144 bytes (256 KB).
  - To send messages larger than 256 KB, you can use the Amazon SQS Extended Client Library for Java, which allow a maximum payload size of 2GB
- Receive message wait time :
  - The maximum amount of time that polling will wait for messages to become available to receive.

- The minimum value is zero seconds and the maximum value is 20 seconds
- Long polling helps reduce the cost of using Amazon SQS by eliminating the number of empty responses
- If you set the receive message wait time to zero, the receive requests use short polling

Step-01 :

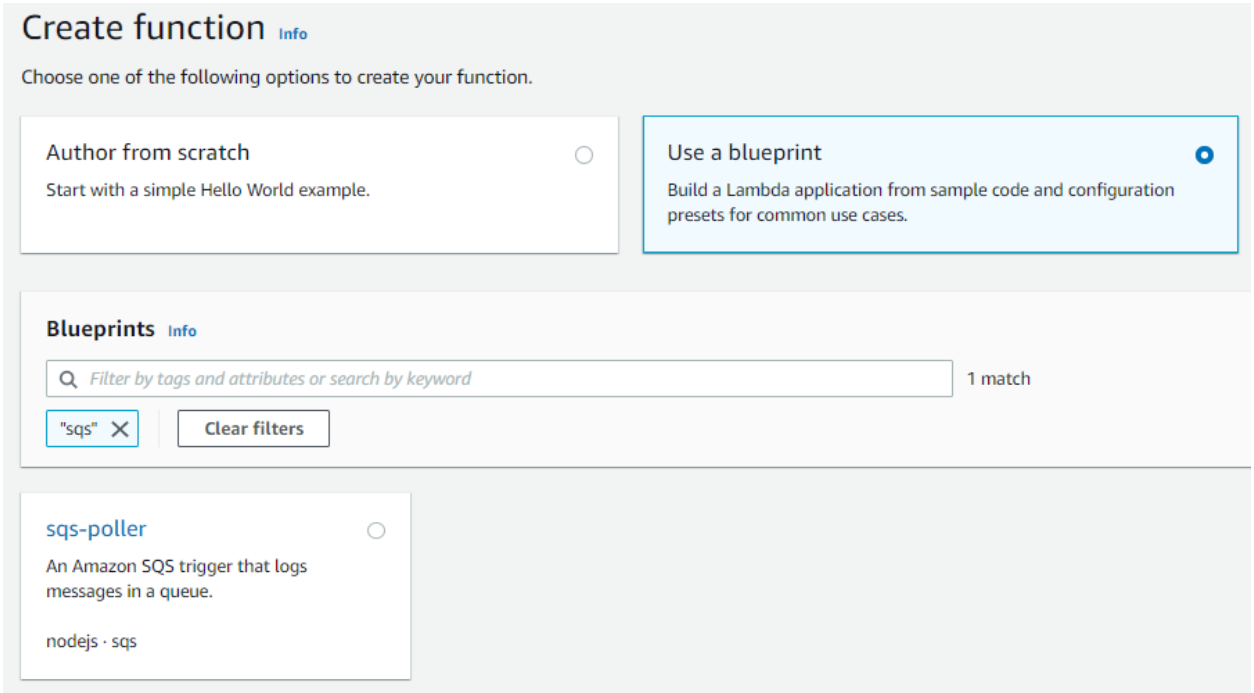
- Create a test queue using standard queue type





Step-02 :

- Create a Lambda function using a blueprint (pre-build) function



Basic information Info

Function name

test-sqs-poller-function

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
- ○ Use an existing role
- ◉ Create a new role from AWS policy templates

Role creation might take a few minutes. Please do not delete the role or edit the trust or permissions policies in this role.

Role name

Enter a name for your new role.

test-sqs-poller-function_role

Use only letters, numbers, hyphens, or underscores with no spaces.

Policy templates - *optional* Info

Choose one or more policy templates.

Amazon SQS poller permissions ×

SQS

SQS trigger

Remove

SQS queue

Choose or enter the ARN of an SQS queue.

arn:aws:sqs:us-east-1:817082744395:test-standard-queue ×

Batch size

The maximum number of messages to retrieve in a single batch.

10

Batch window

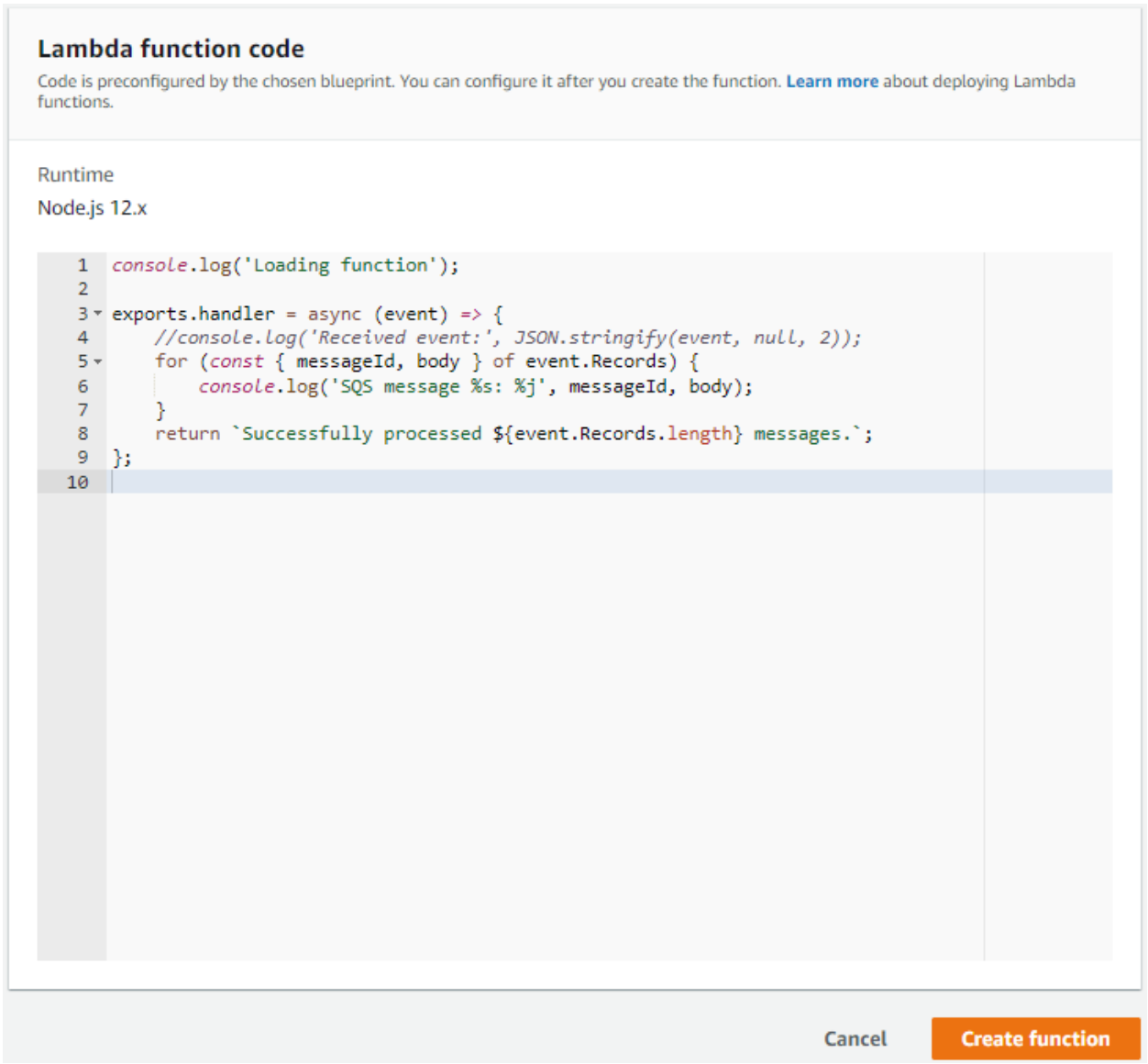
The maximum amount of time to gather records before invoking the function, in seconds.

0

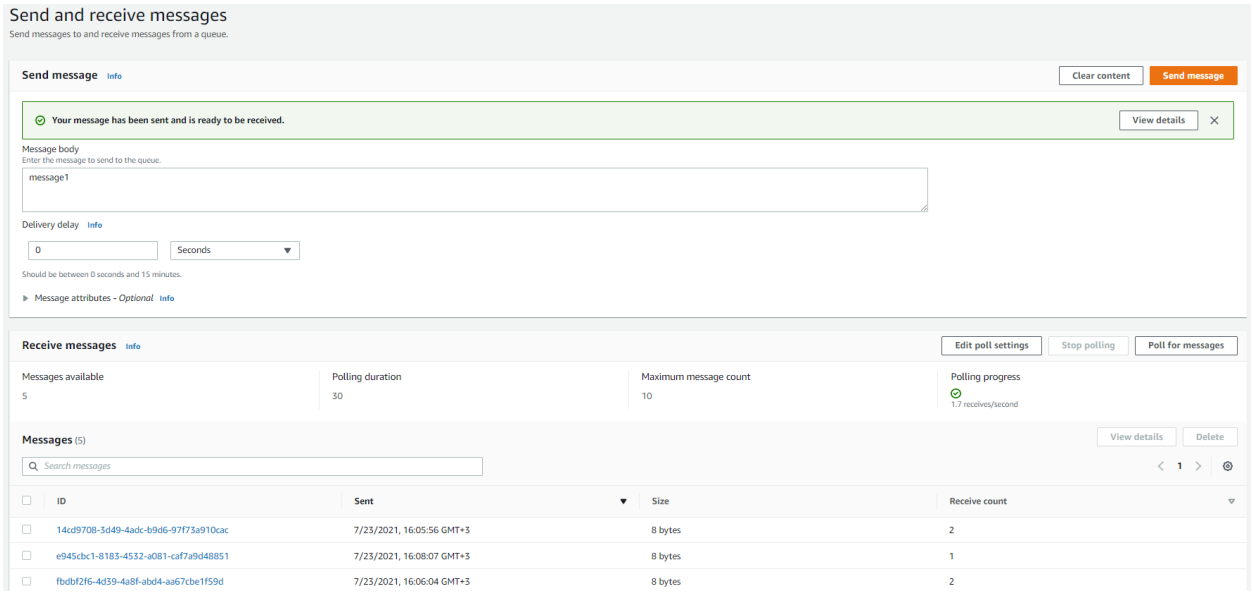
In order to read from the SQS trigger, your execution role must have proper permissions.

☑ Enable trigger

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



- Now select the SQS queue and send some test messages by clicking on “send and receive messages” and you should be able to see the messages on the queue and they must be also process by the Lambda function.



- Additionally you can go to the CloudWatch log group and see the messages that are getting processed by the Lambda function
-