

## Lesson 08 Demo 04

### Creating SQS Standard Queue, Visibility Timeout, and DLQ

**Objective:** To create and manage an Amazon SQS Standard Queue, emphasizing the concepts of visibility timeout and Dead Letter Queue (DLQ)

**Tools required:** AWS Management Console

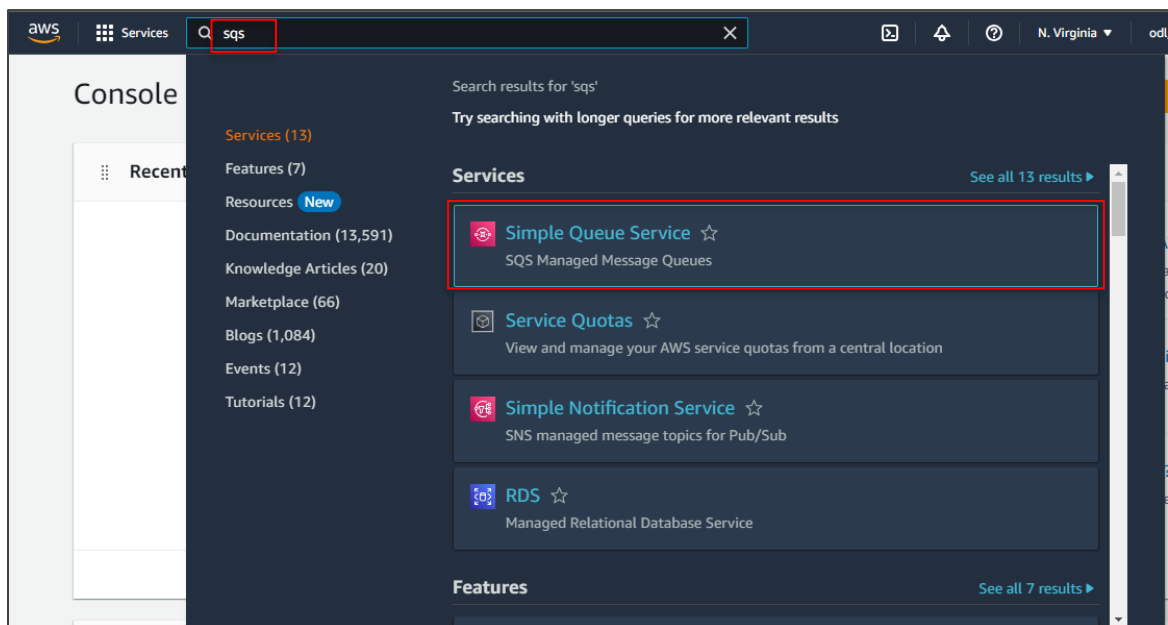
**Prerequisites:** None

Steps to be followed:

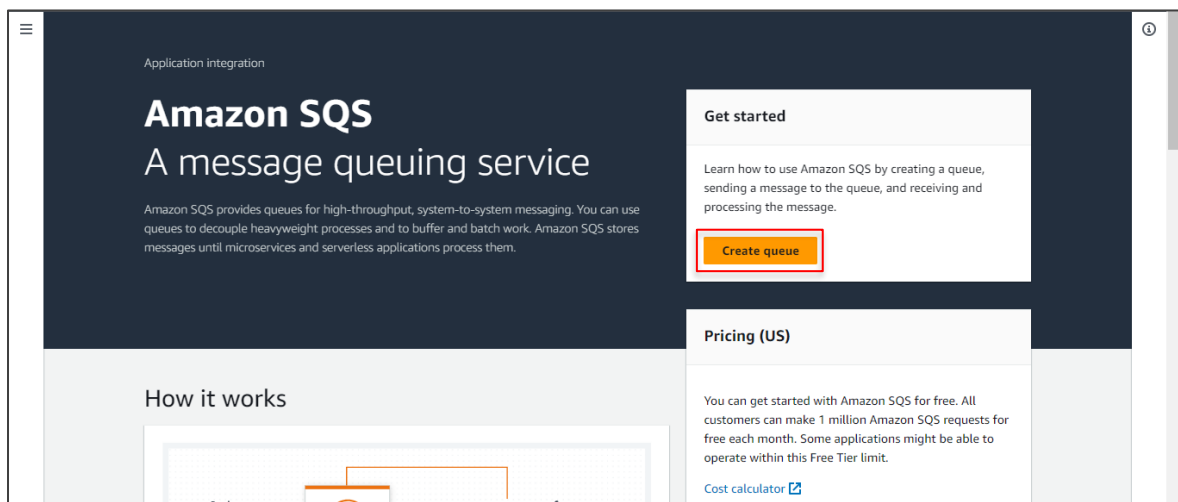
1. Create a standard SQS Queue
2. Send and receive messages
3. Create message polling
4. Edit visibility timeout
5. Create DLQ

#### Step 1: Create a Standard SQS Queue

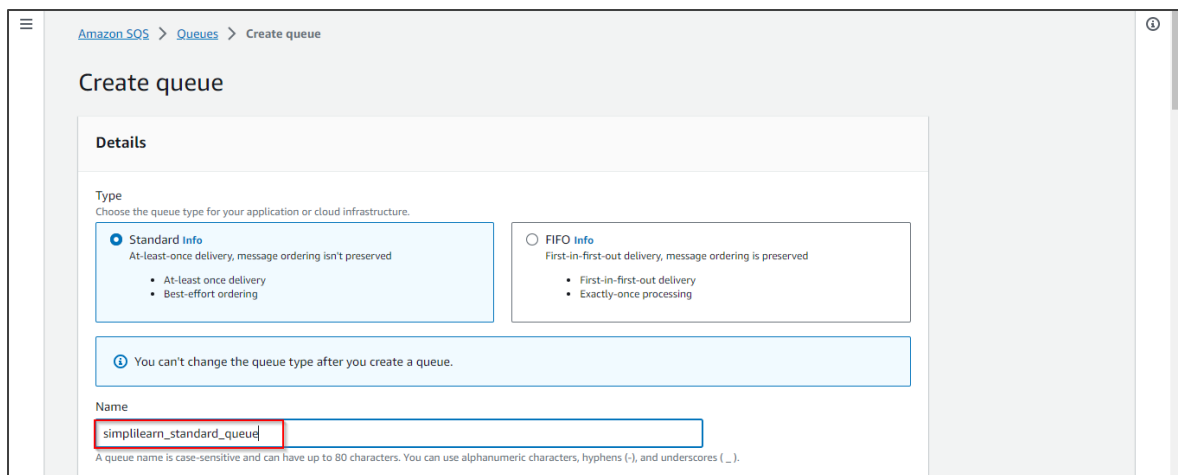
- 1.1 Navigate to the AWS Management Console, search for **sqs** and select **Simple Queue Service**



## 1.2 Click on the **Create queue** button



## 1.3 Name the queue as **simplilearn\_standard\_queue**



1.4 In the Configuration section, set the **Delivery delay** to **4 Seconds** and the **Receive message wait time** to **5 Seconds**

### Configuration [Info](#)

Set the maximum message size, visibility to other consumers, and message retention.

Visibility timeout [Info](#)

Seconds ▼

Should be between 0 seconds and 12 hours.

Message retention period [Info](#)

Days ▼

Should be between 1 minute and 14 days.

Delivery delay [Info](#)

Seconds ▼

Should be between 0 seconds and 15 minutes.

Maximum message size [Info](#)

KB

Should be between 1 KB and 256 KB.

Receive message wait time [Info](#)

Seconds

Should be between 0 and 20 seconds.

1.5 Keep the default values, and click on the **Create queue** button

Set this queue to receive undeliverable messages.

☒ Disabled
 ☐ Enabled

### Tags - Optional [Info](#)

A tag is a label assigned to an AWS resource. Use tags to search and filter your resources or track your AWS costs.

Key

Value - optional

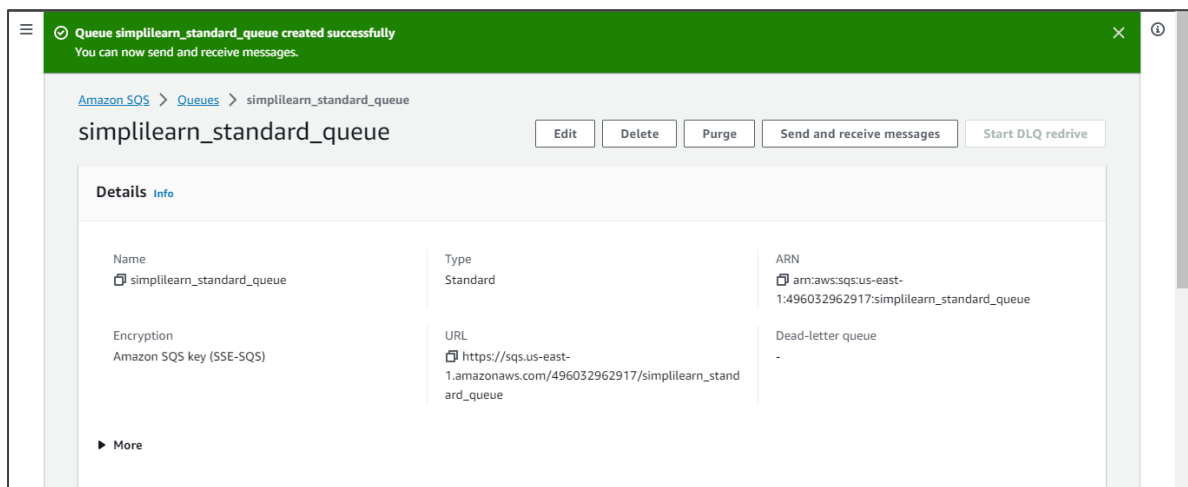
Remove

Add new tag

You can add 49 more tags.

Cancel

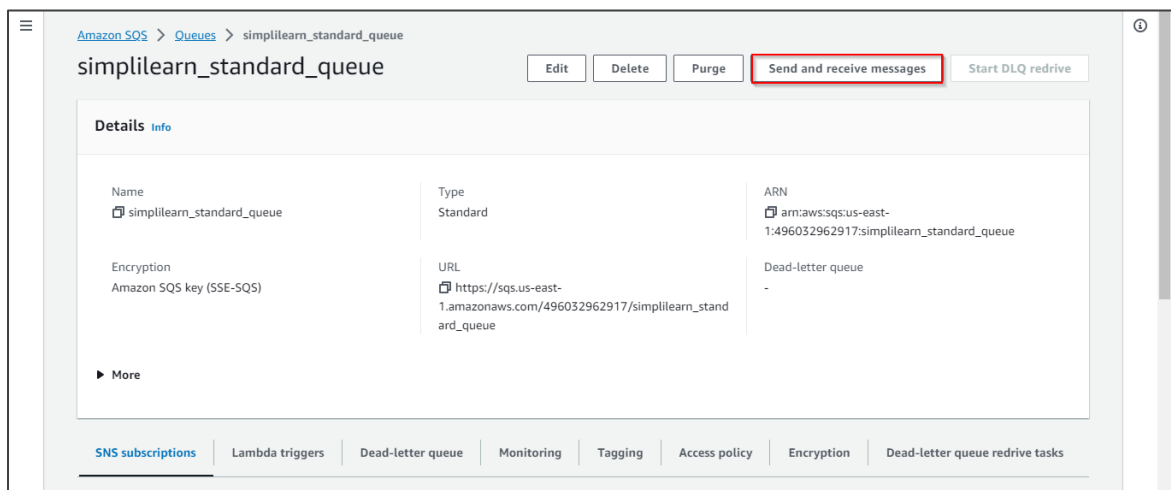
Create queue



The queue has been created successfully.

## Step 2: Send and receive messages

2.1 Navigate to the queue dashboard, and click on the **Send and receive messages** option



2.2 In the **Send message** section, specify the following values:

**Message body:** welcome to the Simplilearn

**Delivery delay:** 0

Click on the **Send message**

Amazon S3 > Queues > simplilearn\_standard\_queue > Send and receive messages

### Send and receive messages

Send messages to and receive messages from a queue.

**Send message** [Info](#)
Clear content Send message

Message body  
Enter the message to send to the queue.

welcome to the Simplilearn

Delivery delay [Info](#)  
0 Seconds  
Should be between 0 seconds and 15 minutes.

[Message attributes - Optional](#) [Info](#)

**Send message** [Info](#)
Clear content Send message

✓ Your message has been sent and is ready to be received.
 View details ×

Message body

The message is sent successfully.

## Step 3: Create message polling

3.1 Scroll down and click on the **Poll for messages** button

**Receive messages** [Info](#)
Edit poll settings Stop polling Poll for messages

Messages available 1	Polling duration 30	Maximum message count 10	Polling progress 0 receives/second 0%
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Messages (0) View details Delete

ID	Sent	Size	Receive count
No messages. To view messages in the queue, poll for messages.			

Poll for messages

3.2 In the **Messages** section, click on the **Message ID** and navigate to the **Body** tab to view the message

Delivery delay [Info](#)

0 Seconds

Should be between 0 seconds and 15 minutes.

► Message attributes - Optional [Info](#)

**Receive messages** [Info](#) [Edit poll settings](#) [Stop polling](#) [Poll for messages](#)

Messages available	Polling duration	Maximum message count	Polling progress
1	30	10	0 receives/second

Messages (1) [View details](#) [Delete](#)

Search messages

<input type="checkbox"/>	ID	Sent	Size	Receive count
<input type="checkbox"/>	d882e0f3-5bf5-4423-b1f0-c741f1f1b768	2024-08-12T14:47:05:30	26 bytes	2

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Message: d882e0f3-5bf5-4423-b1f0-c741f1f1b768

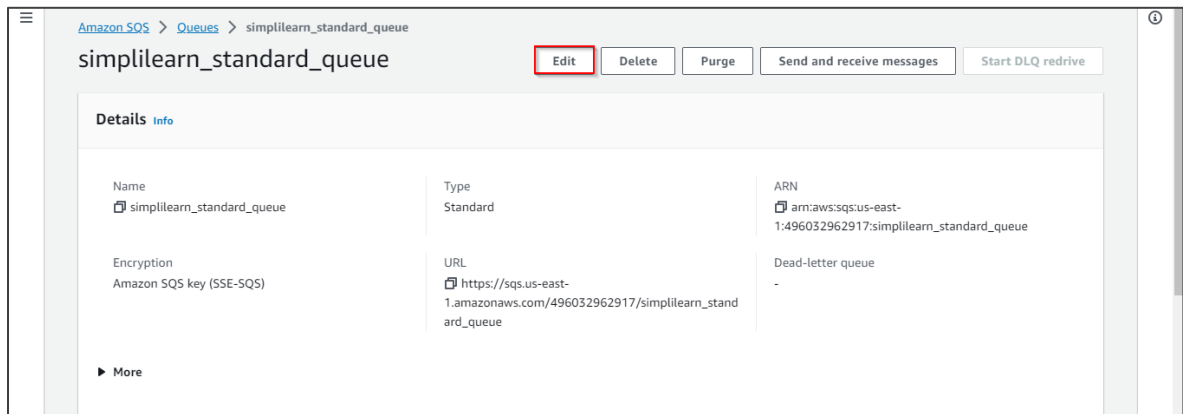
[Body](#) [Attributes](#) [Details](#)

welcome to the Simplilearn

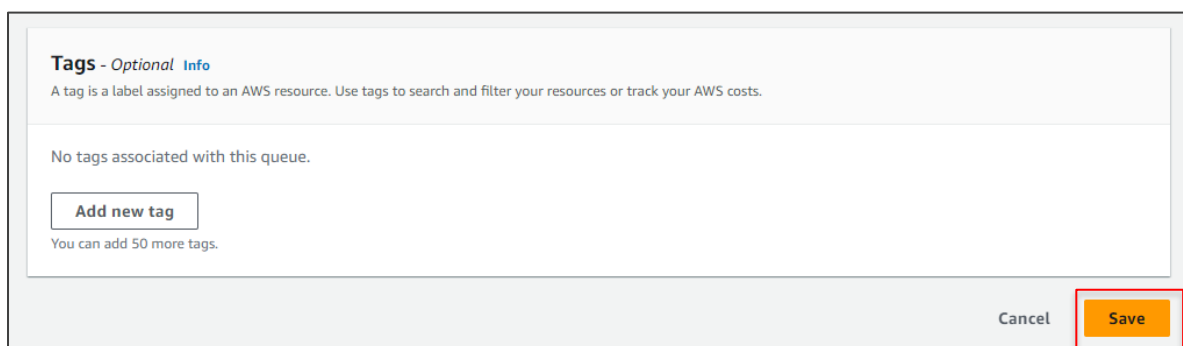
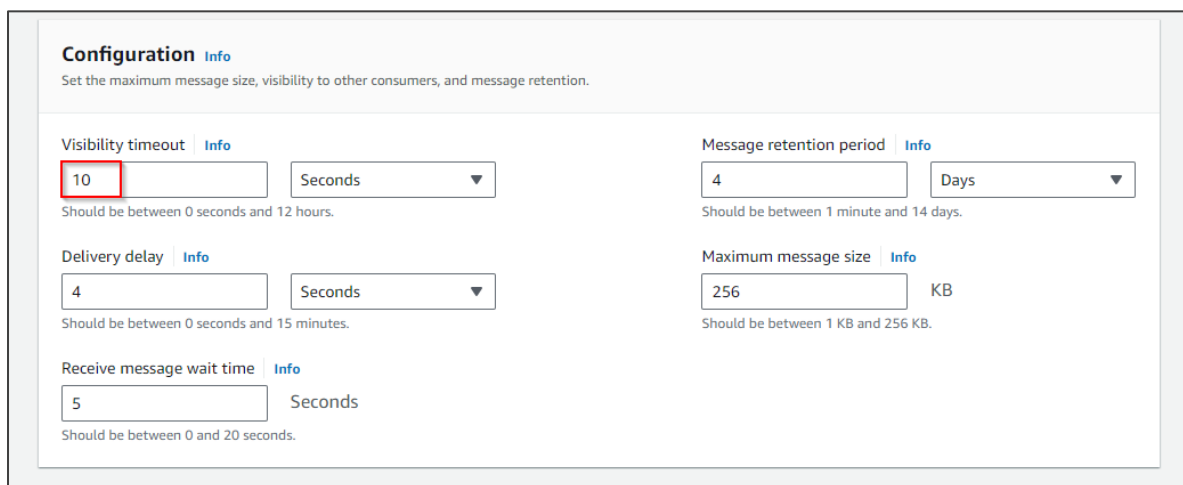
Done

## Step 4: Edit visibility timeout

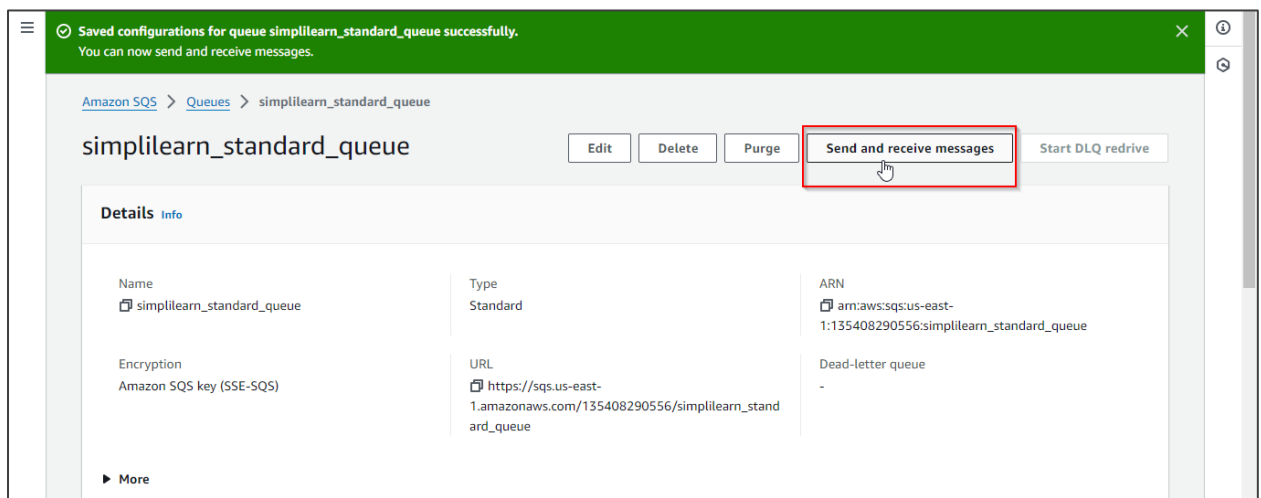
### 4.1 Select `simplilearn_standard_queue` and click on **Edit**



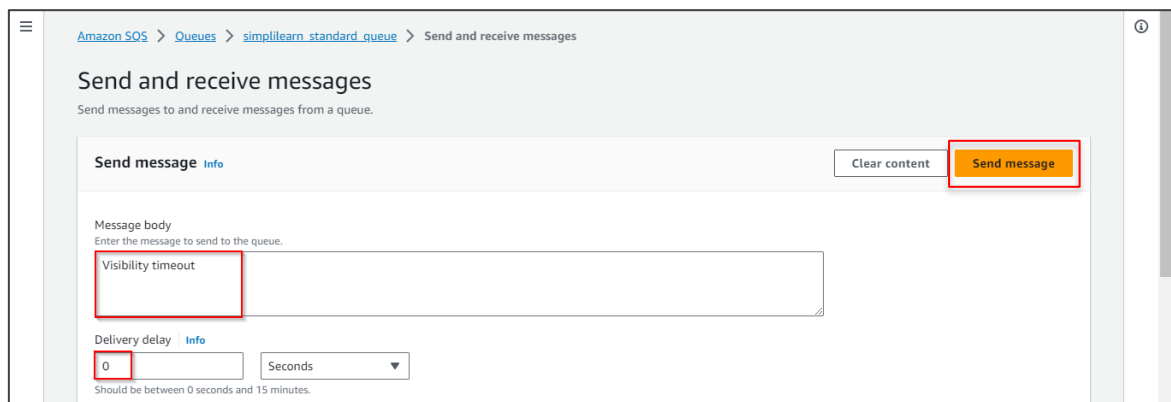
### 4.2 Set the **Visibility timeout** to **10 Seconds** and click on the **Save** button



#### 4.3 Click on the **Send and receive messages** option



#### 4.2 In the **Message body** section, enter **Visibility timeout**, set the **Delivery delay** to **0 Seconds**, and click on the **Send message** button





### 4.3 Click on the **Poll for messages** option

The screenshot shows the AWS IAM console interface for a specific user. At the top, there's a 'Delivery delay' section with a value of 0 seconds. Below that, the 'Receive messages' section is visible. It includes buttons for 'Edit poll settings', 'Stop polling', and 'Poll for messages'. The 'Poll for messages' button is highlighted with a red rectangle. Below the buttons, there's a summary of message statistics: 0 messages available, 30 polling duration, 10 maximum message count, and a polling progress of 0.1 receives/second. At the bottom, there's a table of messages with 2 entries. The table has columns for ID, Sent, Size, and Receive count.

ID	Sent	Size	Receive count
d882e0f3-5bf5-4423-b1f0-c741f1f1b768	2024-08-12T14:47+05:30	26 bytes	5
3810cd95-c5fc-4386-bc4e-b1cae7b5c44f	2024-08-12T14:57+05:30	18 bytes	3

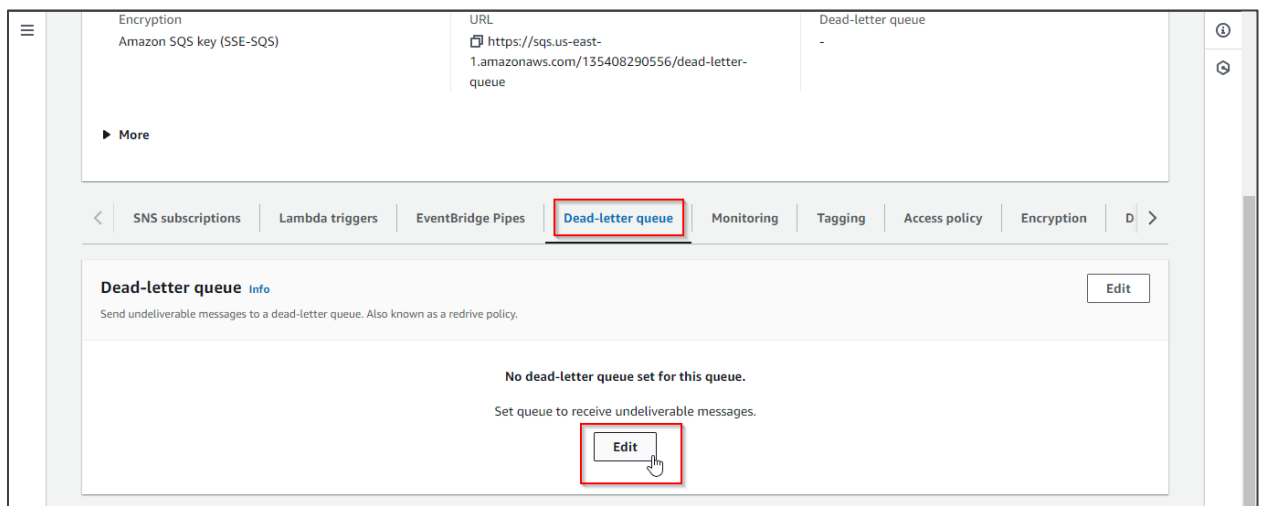
## Step 5: Create DLQ

### 5.1 Create another queue named **dead-letter-queue**, following the steps from 1.1 to 1.5

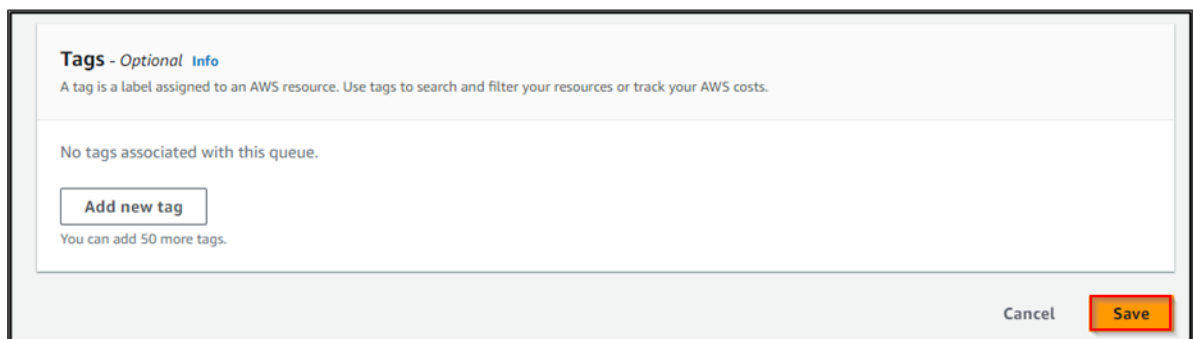
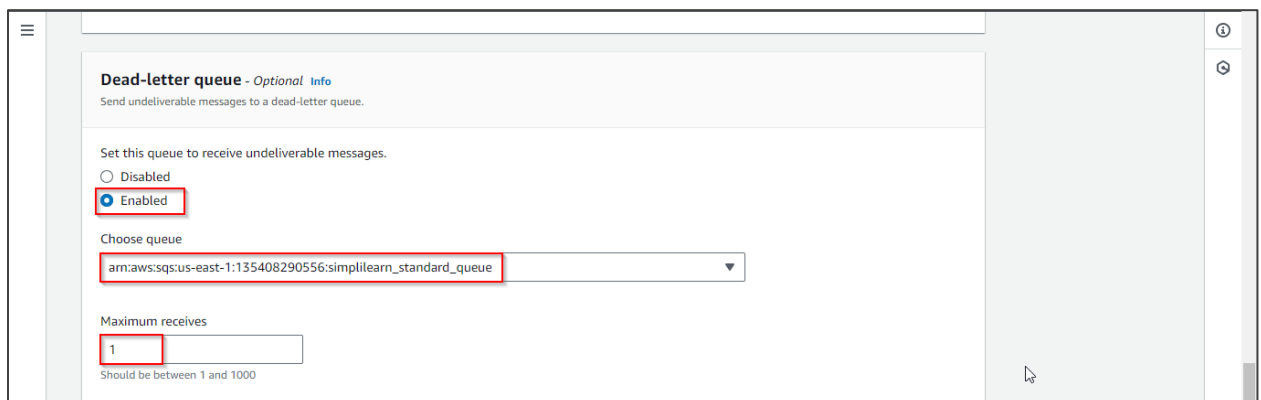
The screenshot shows the AWS IAM console interface for the 'Queues' section. At the top, there's a search bar and a 'Create queue' button highlighted in orange. Below the button, there's a table of queues. The table has columns for Name, Type, Created, Messages available, Messages in flight, and Encryption. There is one queue listed: 'simplilearn\_standard\_queue'.

Name	Type	Created	Messages available	Messages in flight	Encryption
simplilearn_standard_queue	Standard	2023-08-30T12:11+05:30	2	0	Amazon SQS key (SSE-SQS)

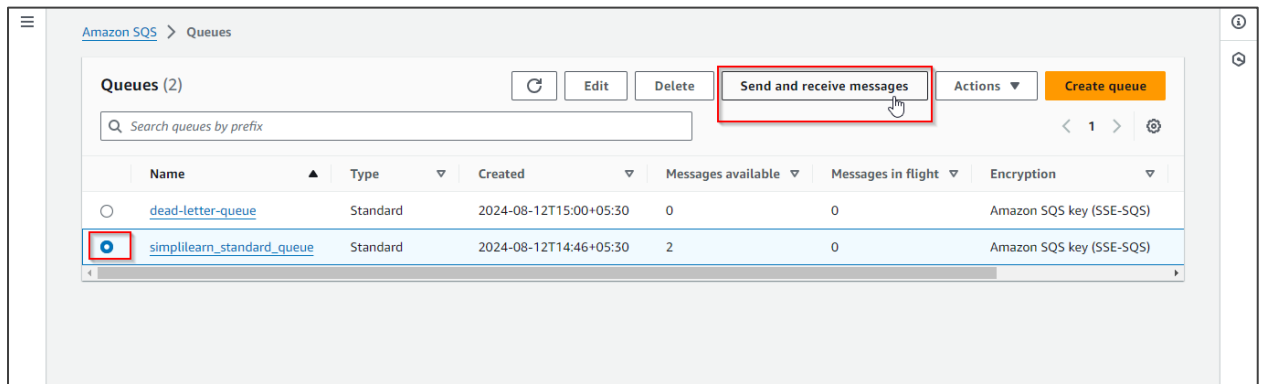
## 5.2 Navigate to the **Dead-letter-queue** and click on the **Edit** button



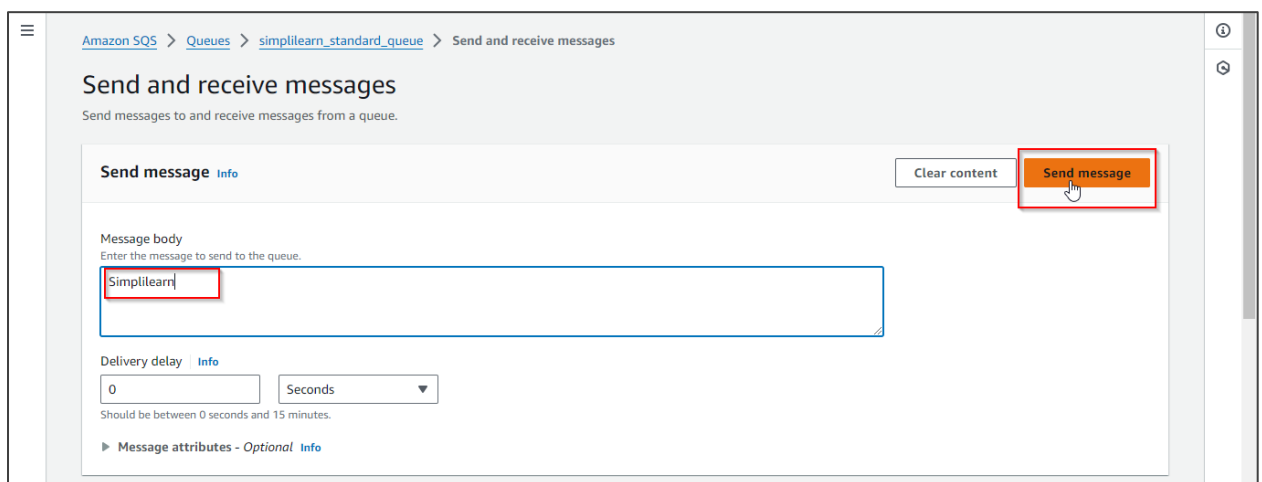
## 5.3 In the **Dead-letter queue** section, select the **enable** option, choose queue as **ARN**, enter the **ARN** of the dead-letter queue, and set **Maximum receives** to **1** and click on **Save**



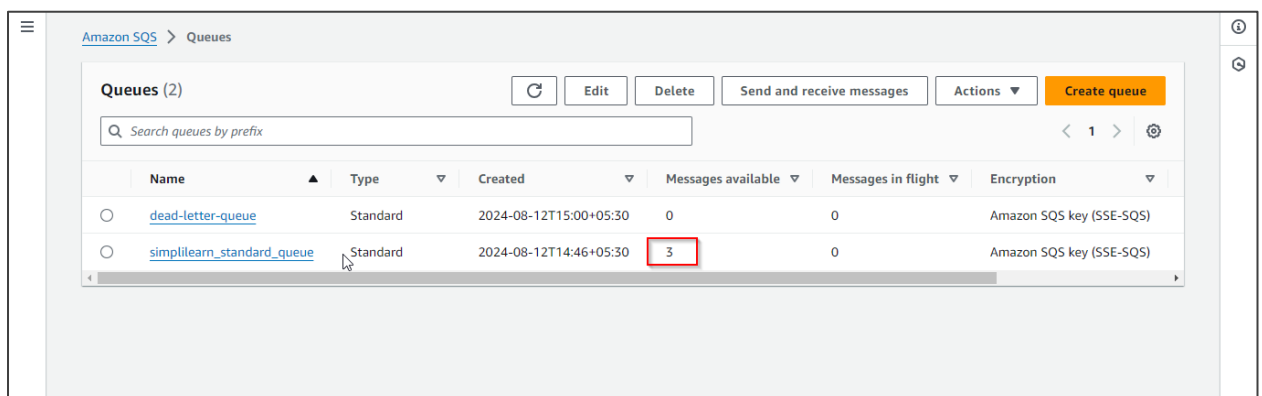
5.4 Select the **Simplilearn\_Standard\_queue** option and click on the **Send and receive messages** button



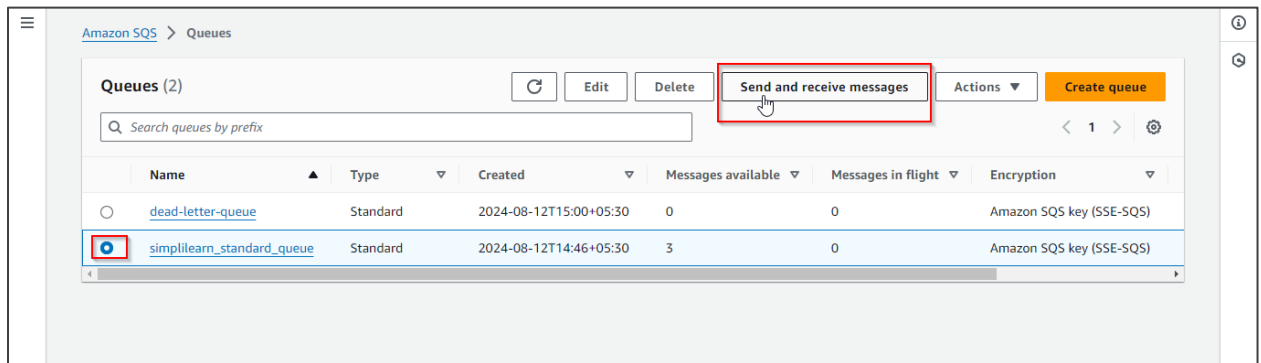
5.5 In the **Message body**, enter **Simplilearn** and click on the **Send message** button



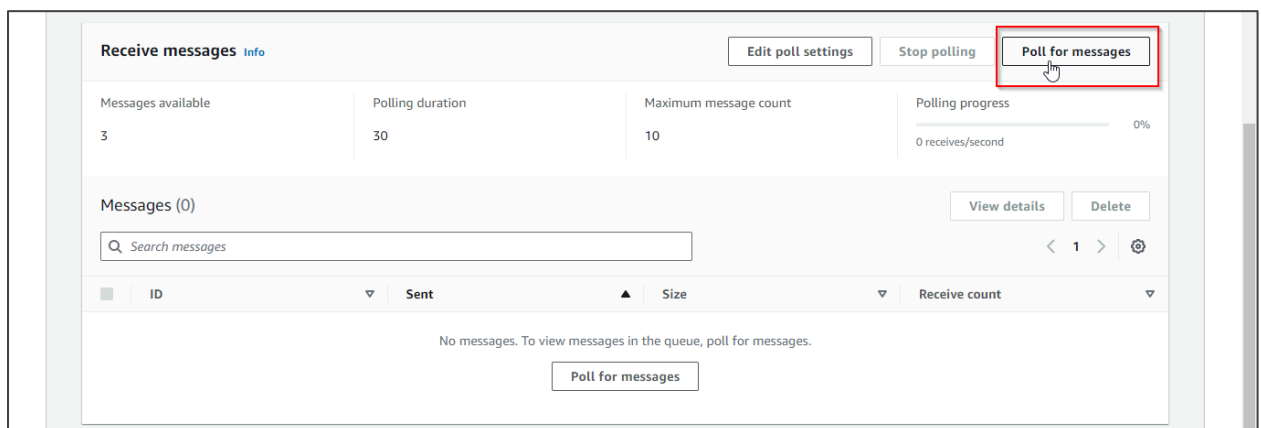
5.6 Navigate back to the **Queues** page, where the message count is **3**



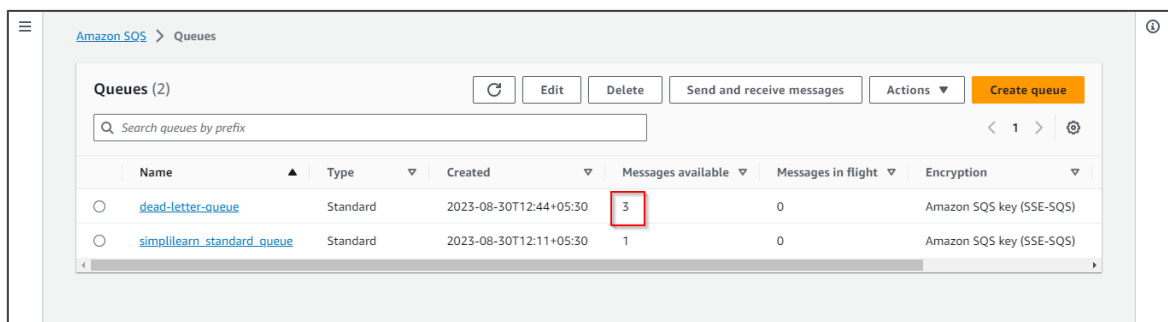
5.7 Select the **simplilearn\_standard\_queue** option and click on the **Send and receive messages** button



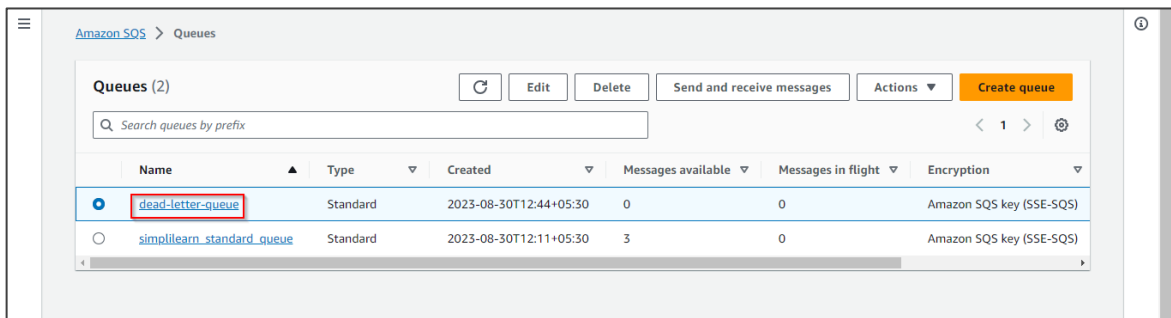
5.8 Click **Poll for messages** to view the message



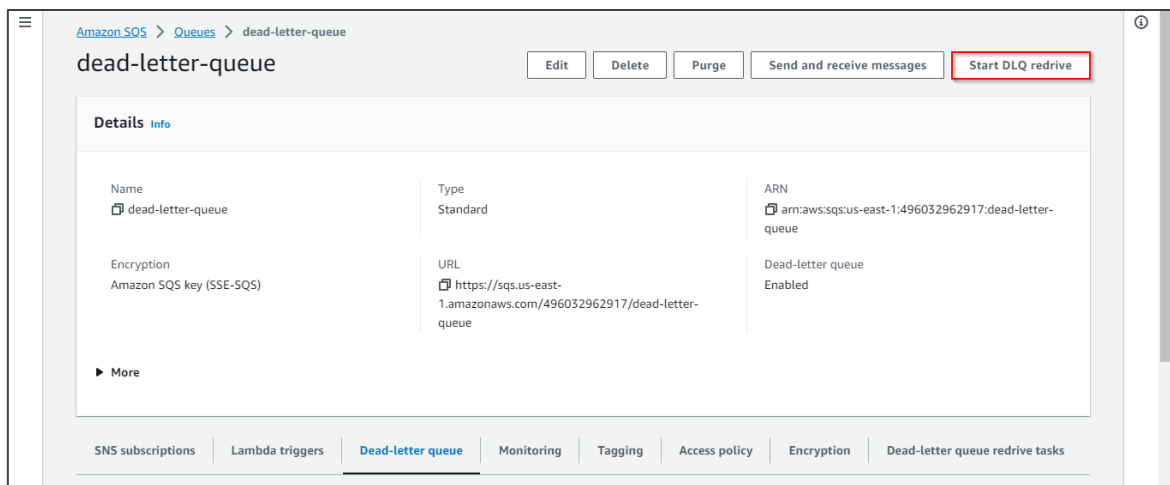
5.9 Return to the **Queues** page and refresh it multiple times to observe messages being moved to the **dead-letter-queue**



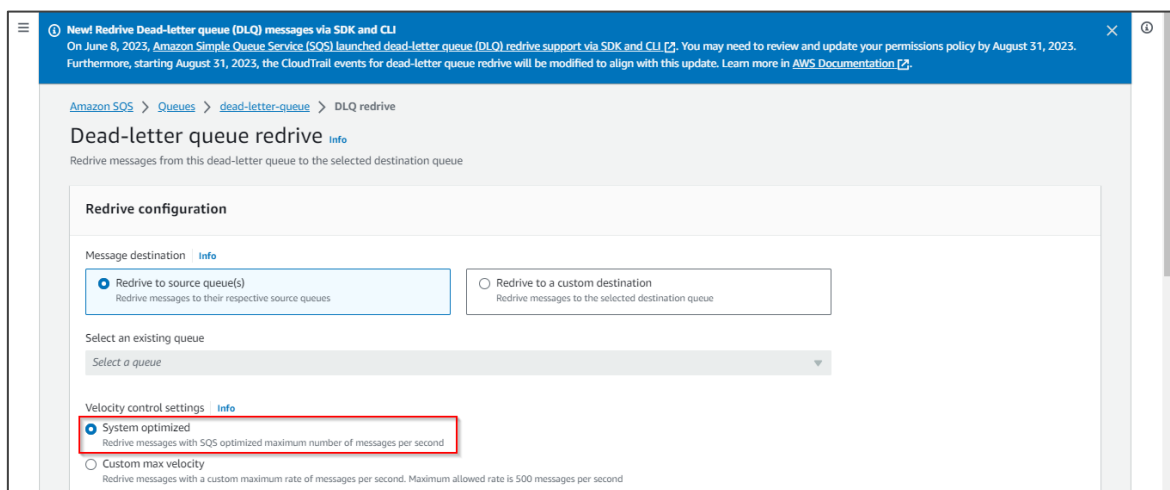
## 5.10 Click on the **dead-letter-queue** option



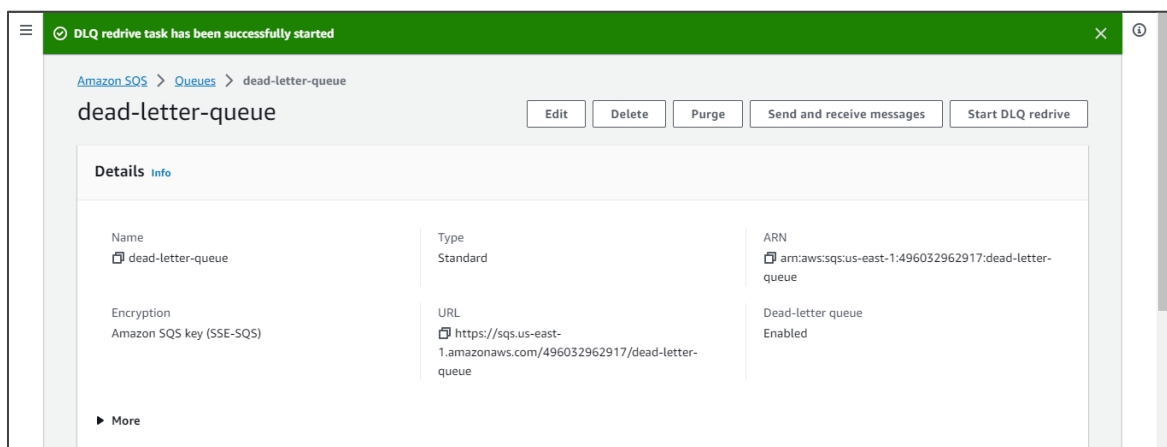
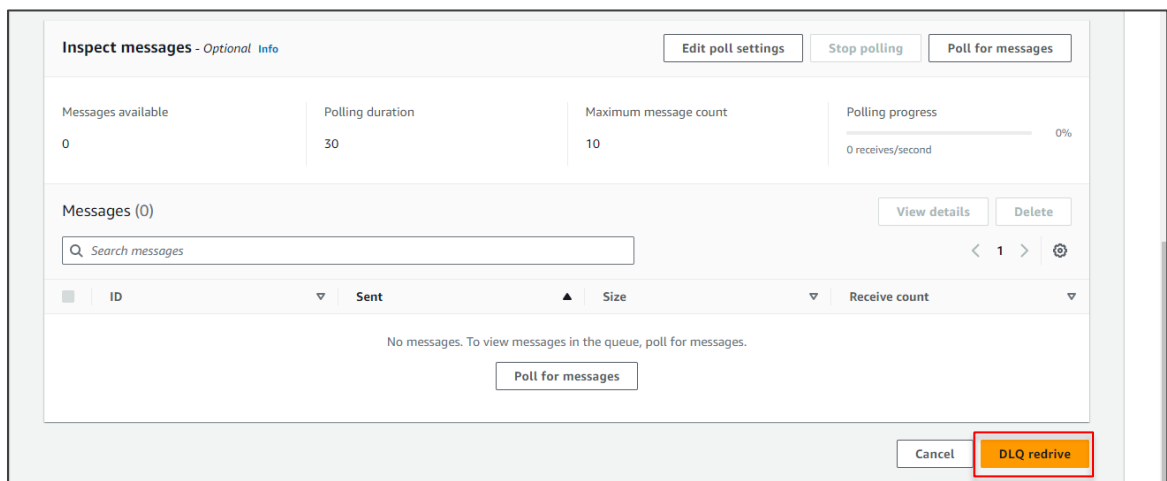
## 5.11 Click on the **Start DLQ redrive** button



## 5.12 In the **Velocity control settings**, select the **System optimized** option

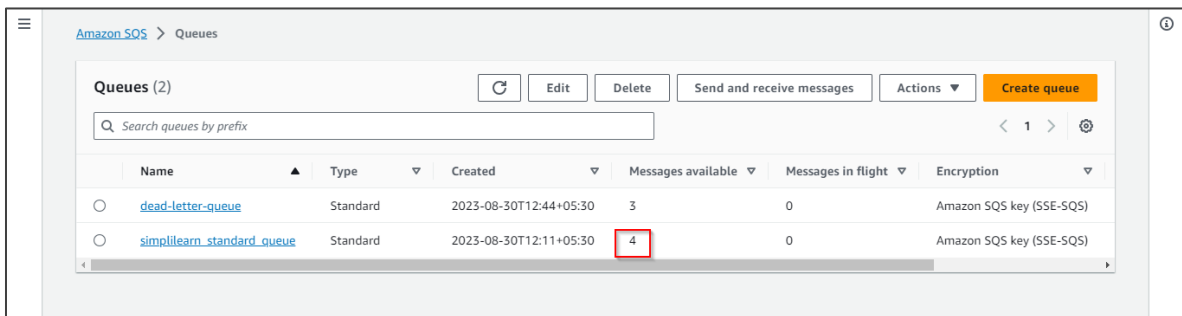


### 5.13 Click on the **DLQ redrive** button



The DLQ redrive has been successfully created.

5.14 Return to the **Queues** page. The message will be sent to **simplilearn\_standard\_queue**.



Amazon SQS > Queues

Queues (2) Refresh Edit Delete Send and receive messages Actions Create queue

Search queues by prefix

	Name	Type	Created	Messages available	Messages in flight	Encryption
<input type="radio"/>	<a href="#">dead-letter-queue</a>	Standard	2023-08-30T12:44+05:30	3	0	Amazon SQS key (SSE-SQS)
<input type="radio"/>	<a href="#">simplilearn_standard_queue</a>	Standard	2023-08-30T12:11+05:30	4	0	Amazon SQS key (SSE-SQS)

By following these steps, you have successfully demonstrated the process of working with an Amazon SQS Standard Queue, adjusting visibility timeout, and setting up a Dead Letter Queue for message handling.