Module 8: SQS and SES Assignment

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Course Offered: -Advanced Cloud Computing and Devops
Assignment By: -Intellipaat
Trainer: -Puneet Gavri
Date Of Submission: -15/11/2024

Problem Statement:

You work for XYZ Corporation. Your team is asked to deploy similar architecture multiple times for testing, development, and production purposes. Implement CloudFormation for the tasks assigned to you below. Tasks To Be Performed:

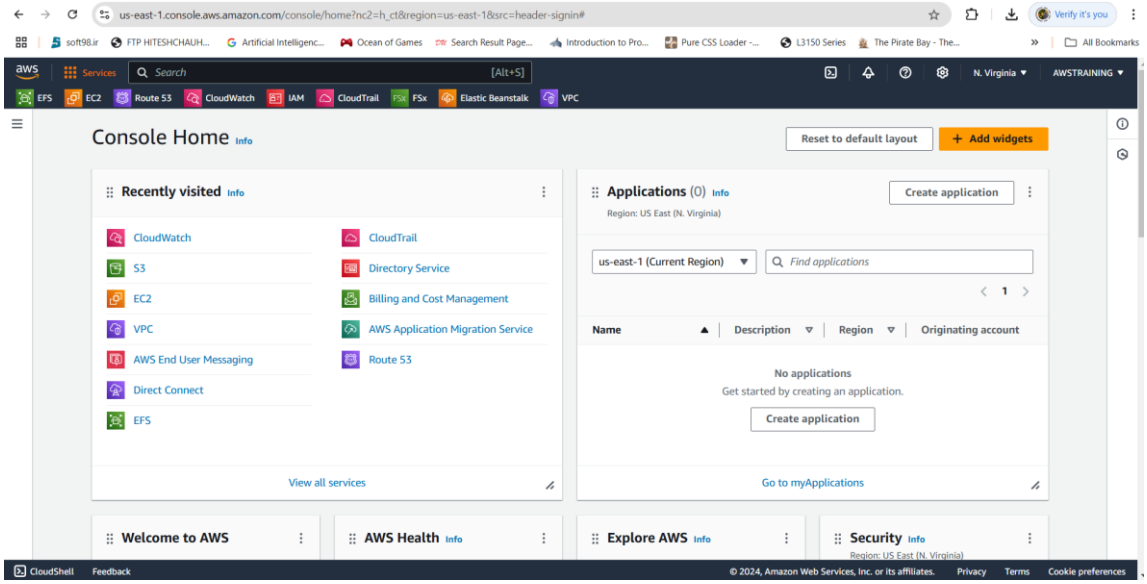
Tasks To Be Performed:

1. Create a FIFO SQS queue and test by sending messages.

2. Register your mail in SES and send a test mail to yourself.

ANSWER:

Login to AWS Management Console then Search Cloud Formation. you will see the cloud formation and click the Cloud Formation.



In cloud formation need to create the templates

AWSTemplateFormatVersion: "2010-09-09"

Description: CloudFormation template to create an SQS FIFO sqsQueue

Resources:

MyFIFOQueue:

Type: "AWS::SQS::Queue"

Properties:

QueueName: "MyFIFOQueue1.fifo" #FIFO queues must end with .fifo

FifoQueue: true

ContentBasedDeduplication: true #Content-based deduplication is the default setting

After complete the code you need to save .yaml file. Save this file as sqs-fifo-queue.yaml.

I used For this code editor is visual studio.This is the visual studio code editor download link.

https://code.visualstudio.com/

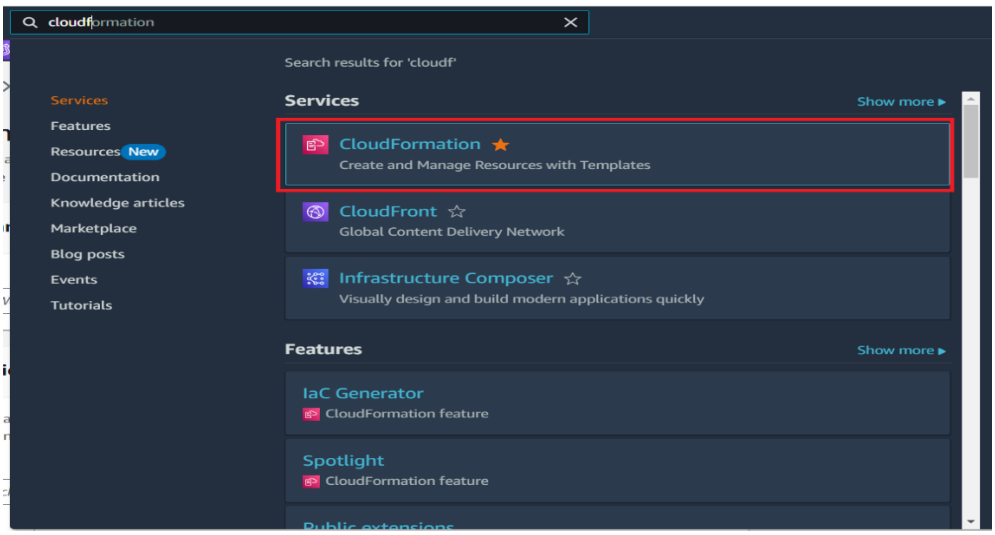
```yaml
AWSTemplateFormatVersion: "2010-09-09"
Description: CloudFormation template to create an SQS FIFO sqsQueue

Resources:
  MyFIFOQueue:
    Type: "AWS::SQS::Queue"
    Properties:
      QueueName: "MyFIFOQueue1.fifo" #FIFO queues must end with .fifo
      FifoQueue: true
      ContentBasedDeduplication: true #Content-based deduplication is the default setting
```

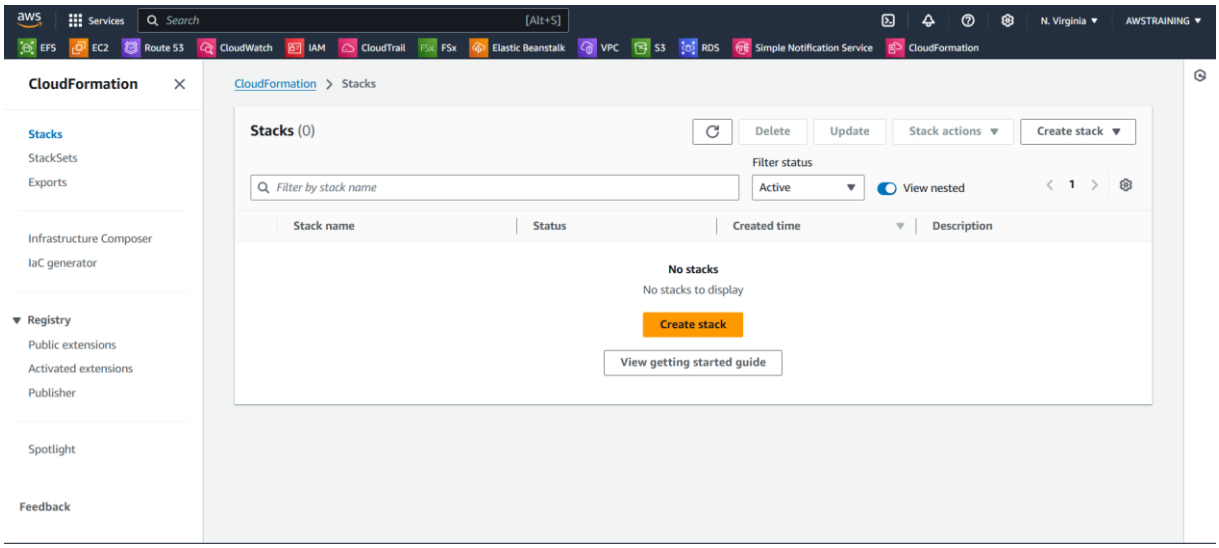
Upload the Template to CloudFormation.

Log in to your AWS Management Console.

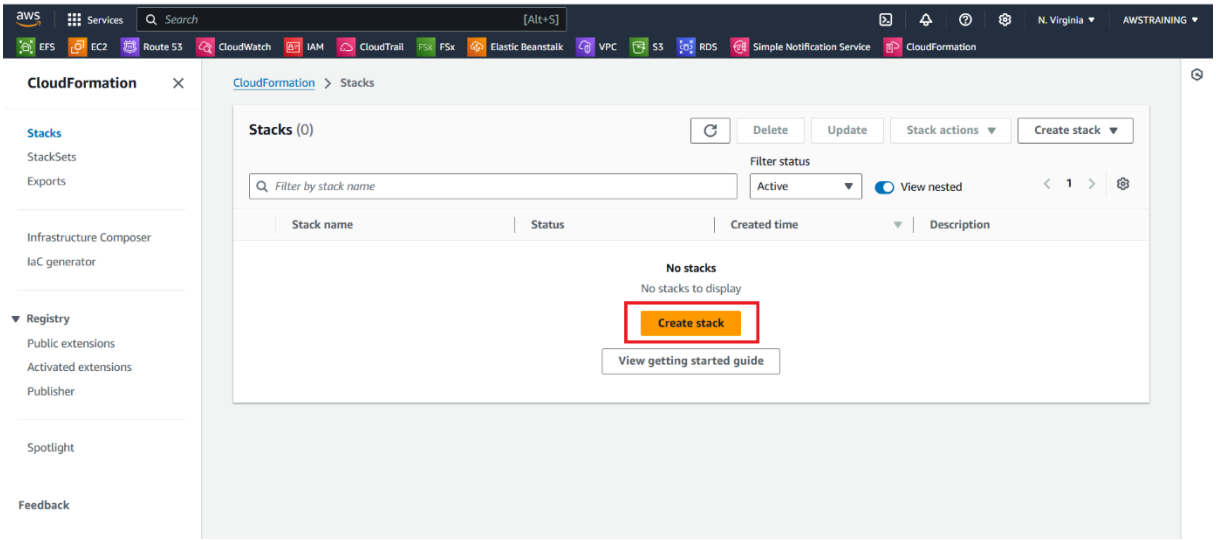
- Navigate to the CloudFormation service.
- Click Create Stack and select with new resources (standard).
- Choose Upload a template file and upload the sqs-fifo-queue.yaml file.
- Click Next.



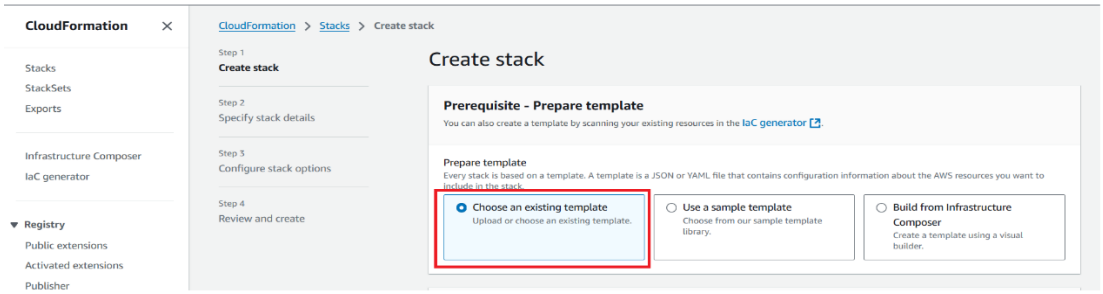
Then Open This Page



Then Click Create Stack



After Click the Create stack You will open Like this page.



Then

Specify template Info

A template is a JSON or YAML file that describes your stack's resources and properties.

Template source

Selecting a template generates an Amazon S3 URL where it will be stored.

- ○ Amazon S3 URL — Provide an Amazon S3 URL to your template.
- ◉ Upload a template file — Upload your template directly to the console.
- ○ Sync from Git — Sync a template from your Git repository.

Upload a template file

Choose file

JSON or YAML formatted file

S3 URL: Will be generated when template file is uploaded

View in Infrastructure Composer

Cancel Next

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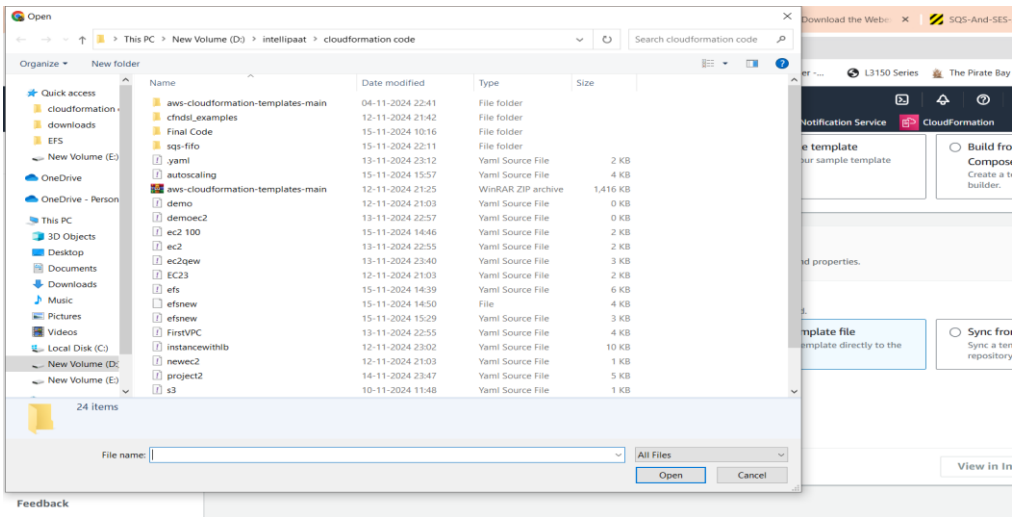
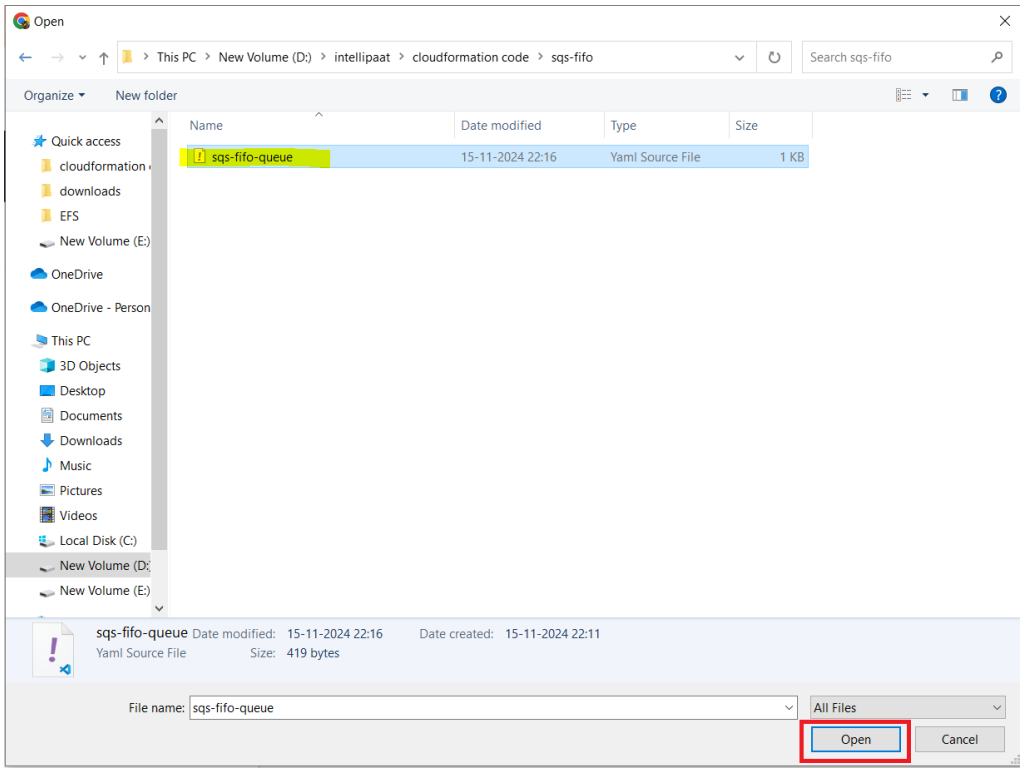
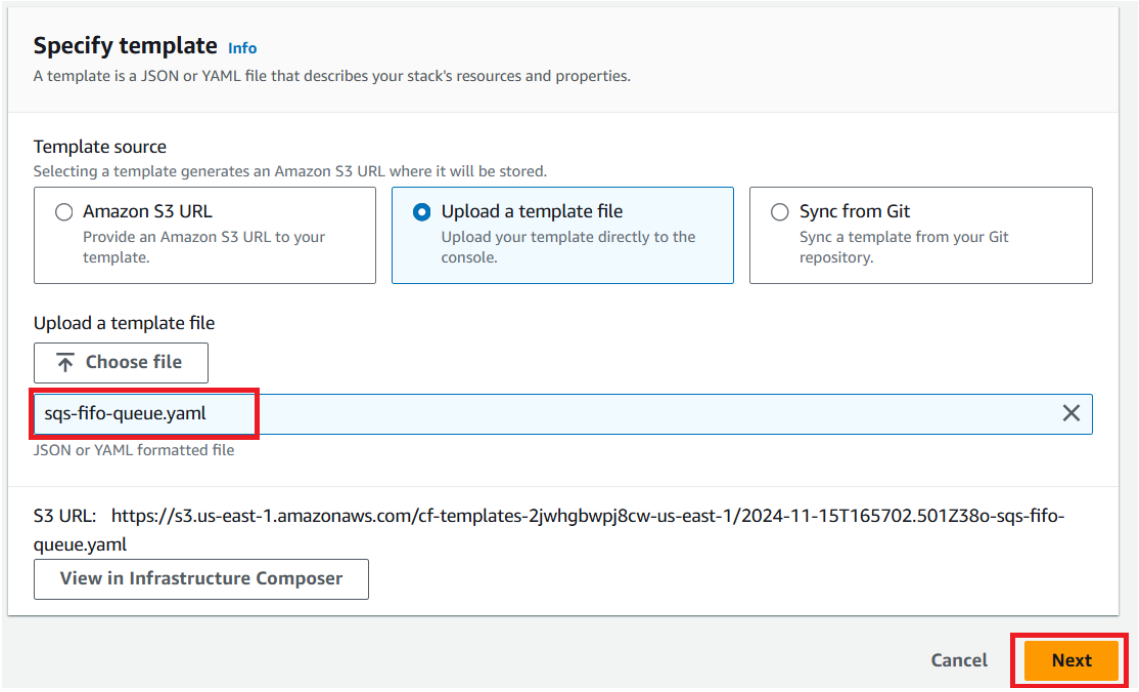




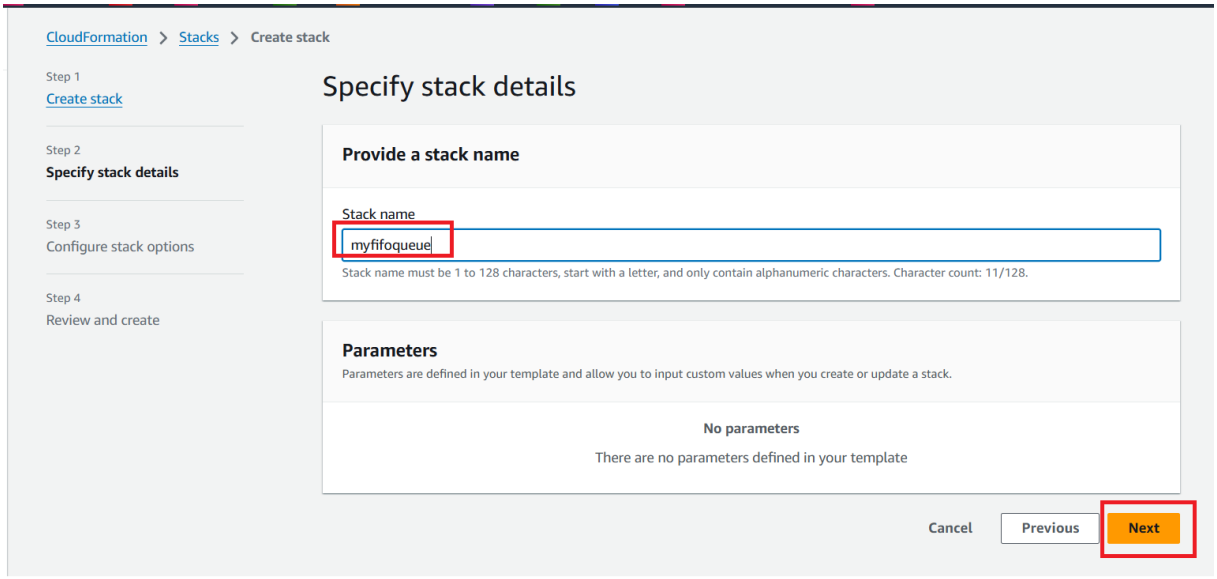
Click Open



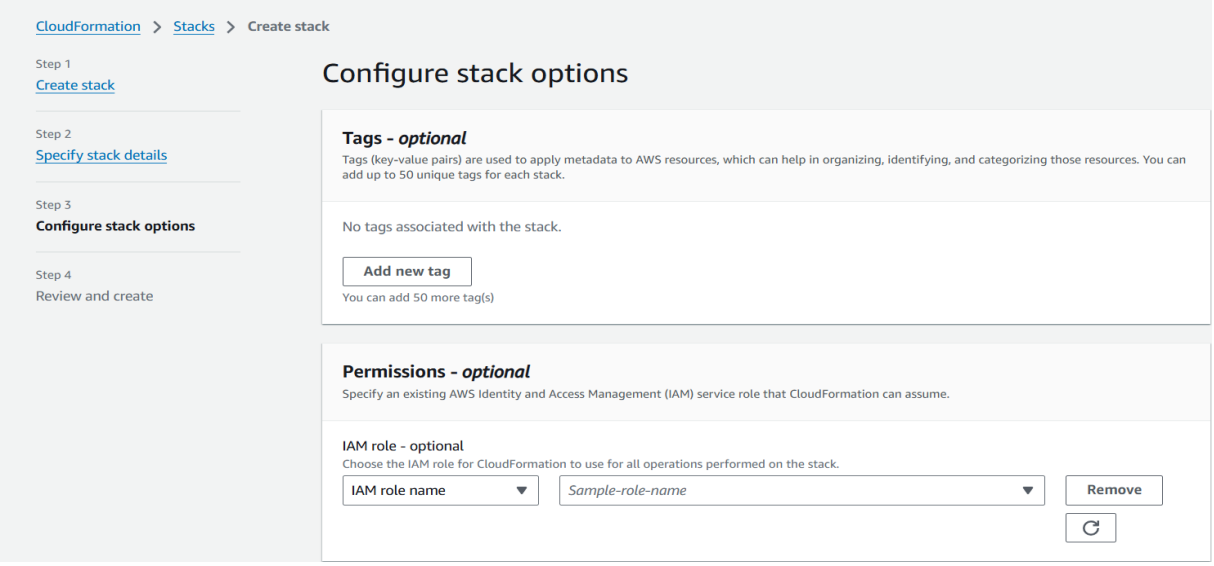
Click Next.

Stack Name **myfifoqueue**

Then Click Next



After You Will see Configure stack options



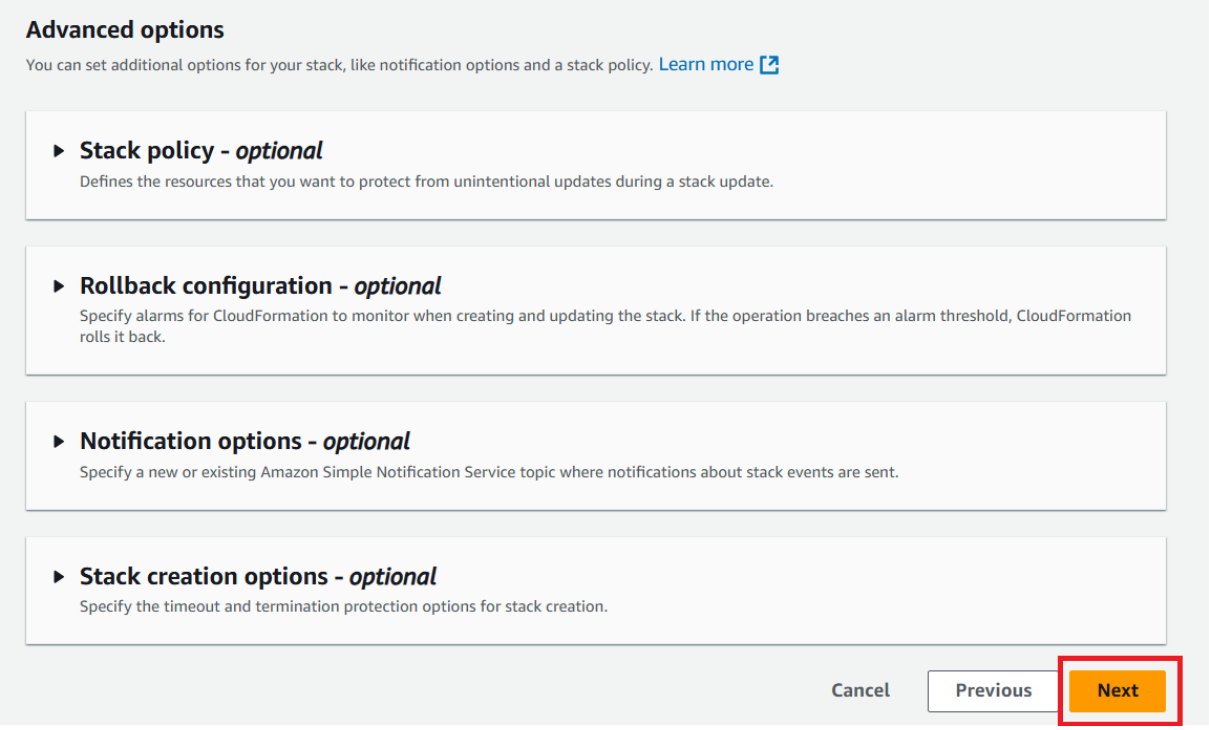
Then After You will failure option.

Behaviour On Provision Failure

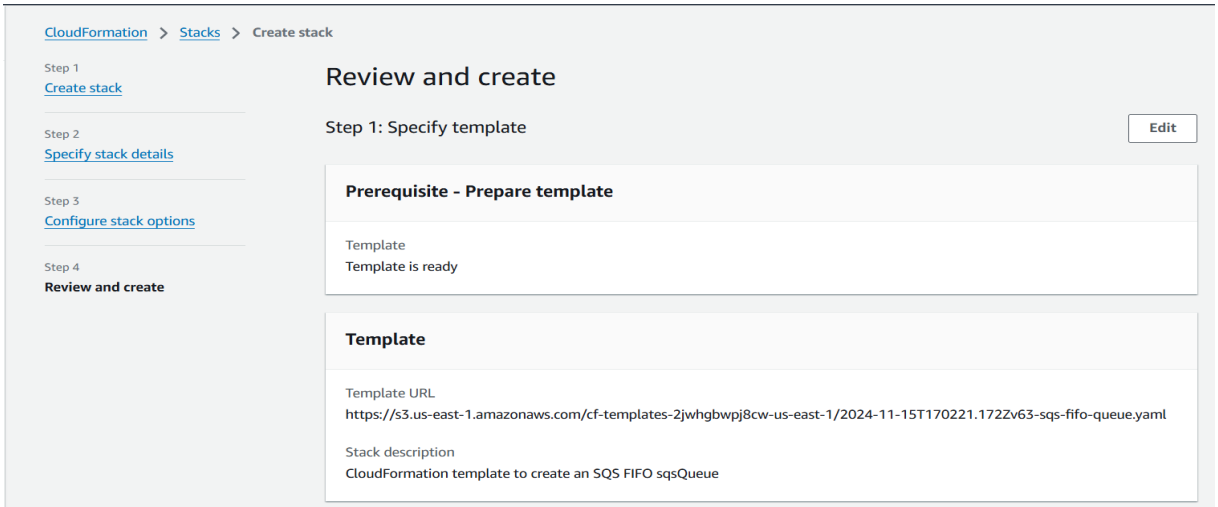
You need to choose **Roll back all stack resources**

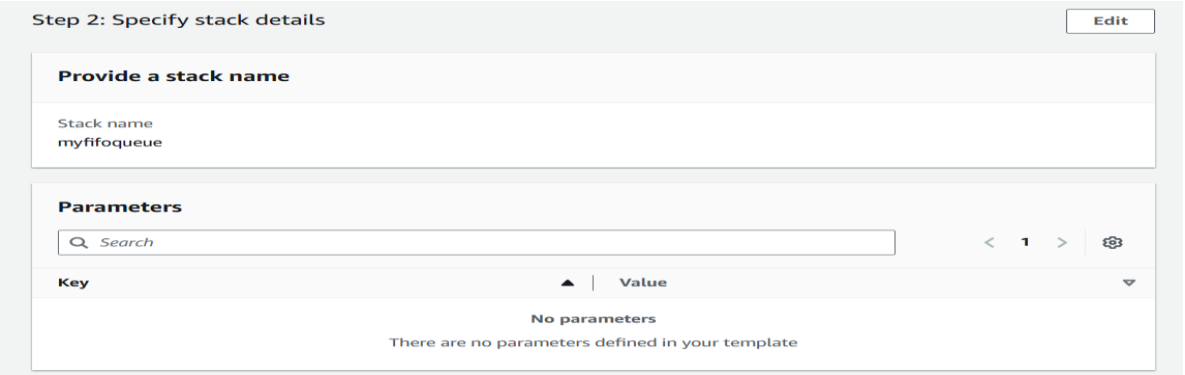
Then You will see Advanced Options.Nothing to do on this section.

Then Click Next



After Click The next you need to review the templates Then Submit





Step 3: Configure stack options

Edit

Tags

Search tags

1

Key	Value

No tags

There are no tags defined for this stack

Permissions

No permissions

There is no IAM role associated with this stack

Stack failure options

Rollback on failure

Activated

Delete newly created resources during a rollback

Deactivated

Stack policy

No stack policy

There is no stack policy defined

Rollback configuration

Monitoring time

-

CloudWatch alarm ARN

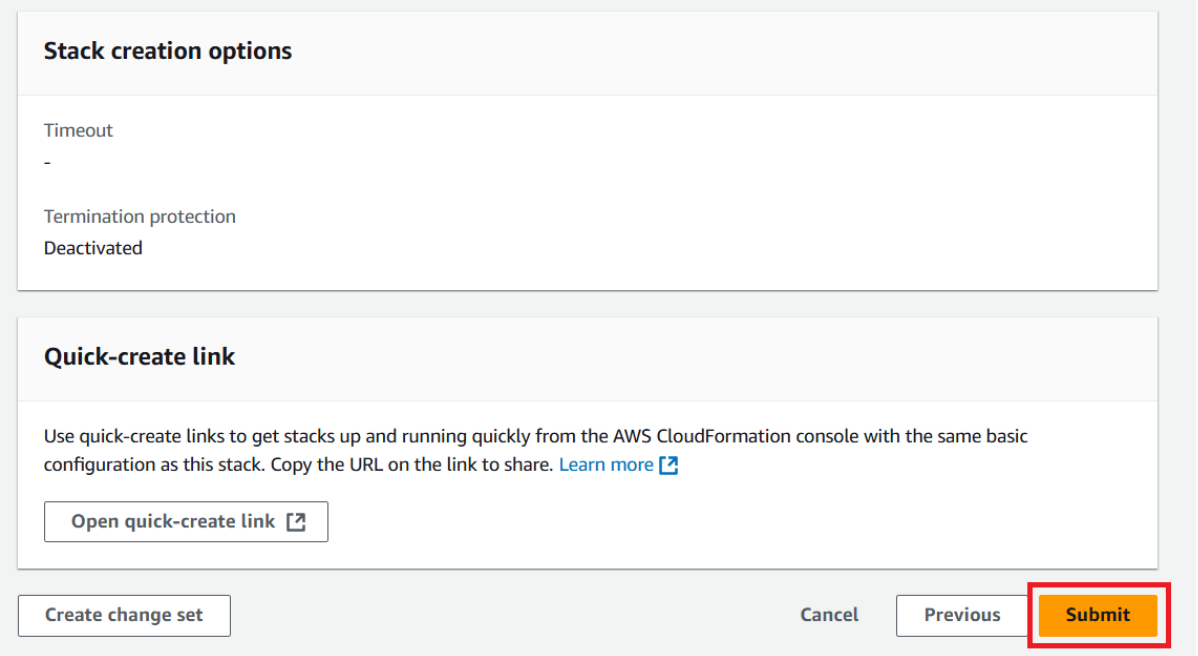
-

Notification options

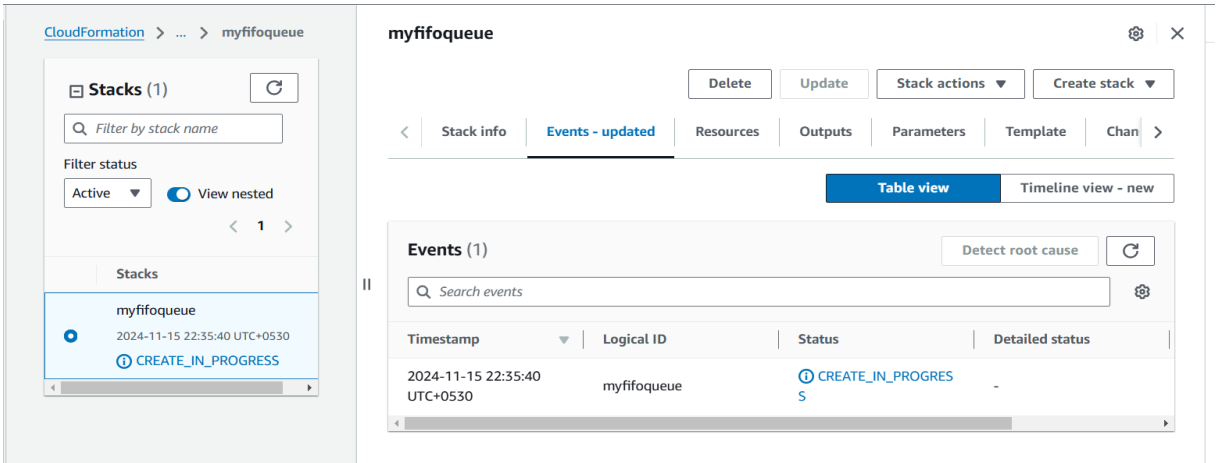
SNS topic ARN

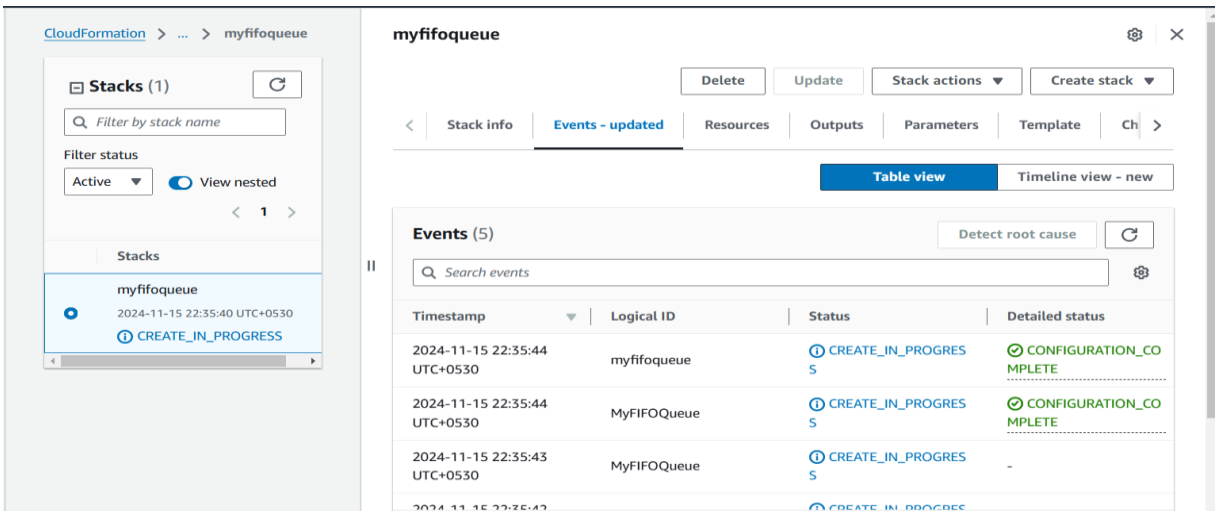
No notification options

There are no notification options defined

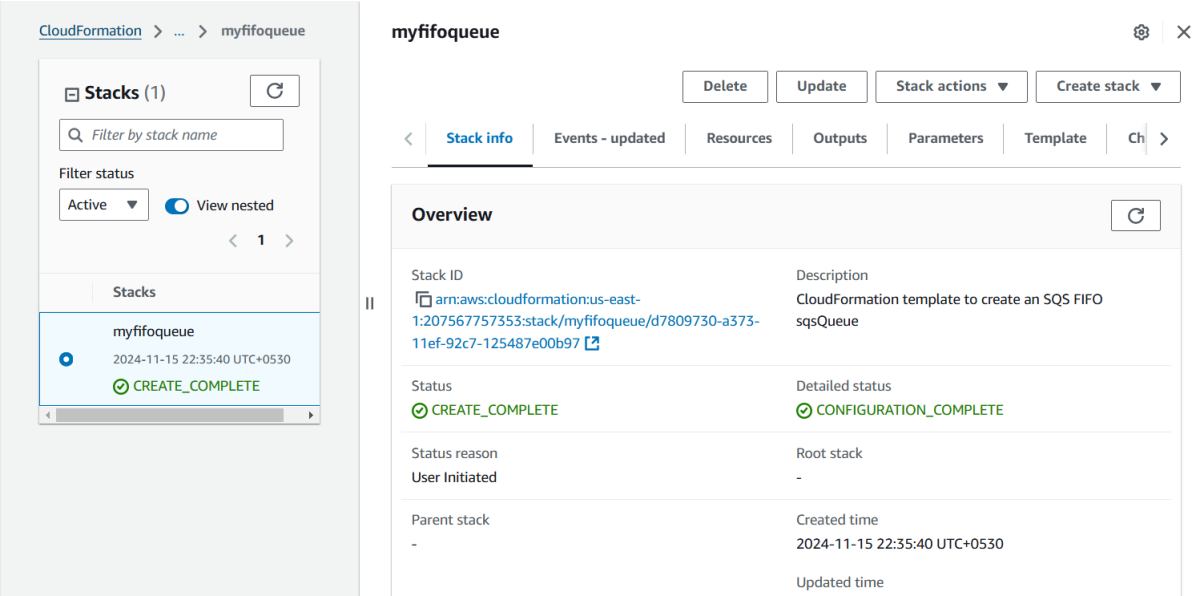


After Submit Template will creating the resources like fifo queue.



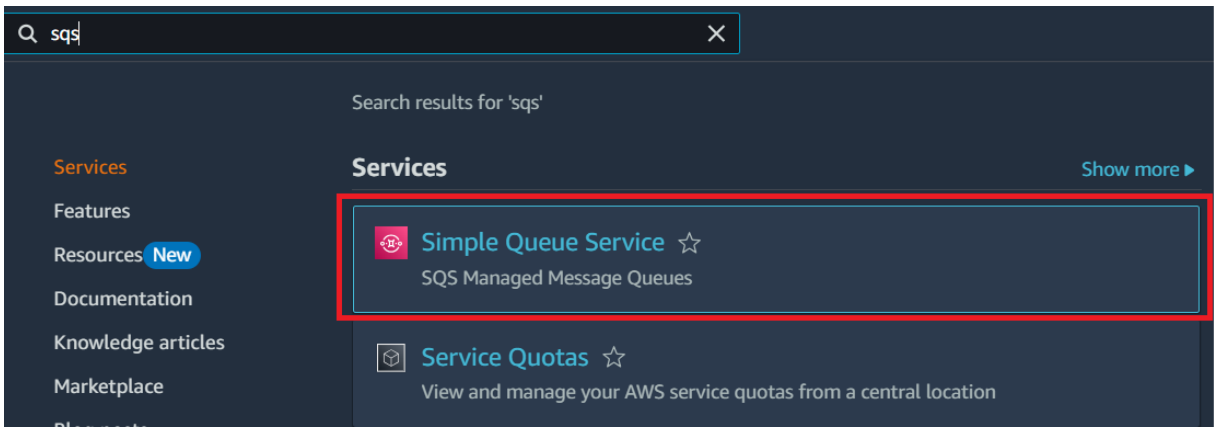


You will see the resource configuration has been completed.

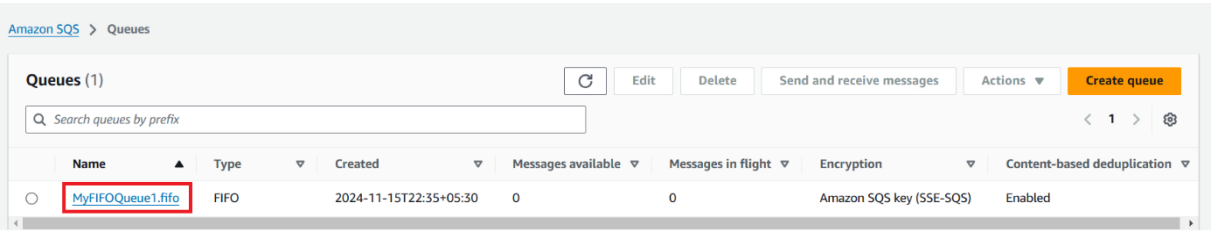


Then After Go to Simple Queue Service for check the resource create or not for the verifiy the same.

Verify Queue Creation.

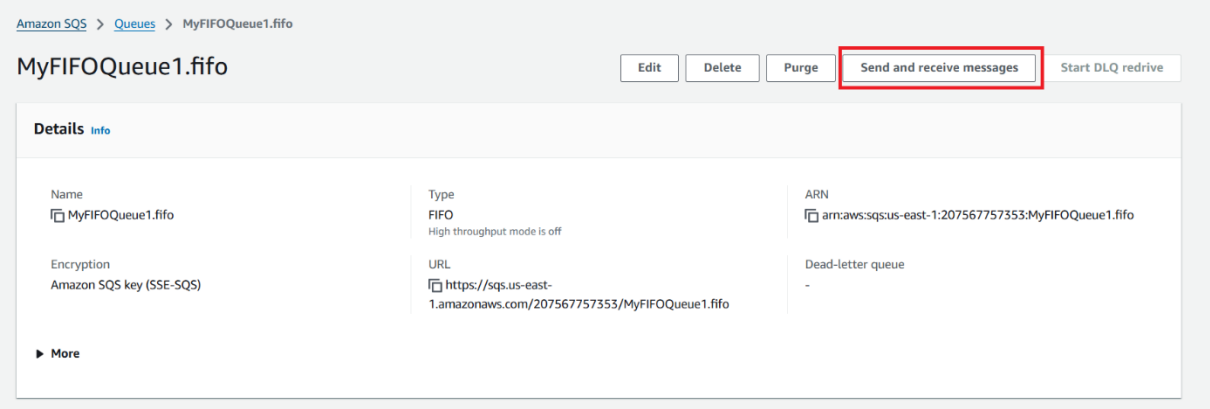


Resource has been created through cloudformation template.



Once the stack is created, go to the SQS Console in AWS.

Verify that there is a new FIFO queue called MyFIFOQueue1.fifo in the list of queues.

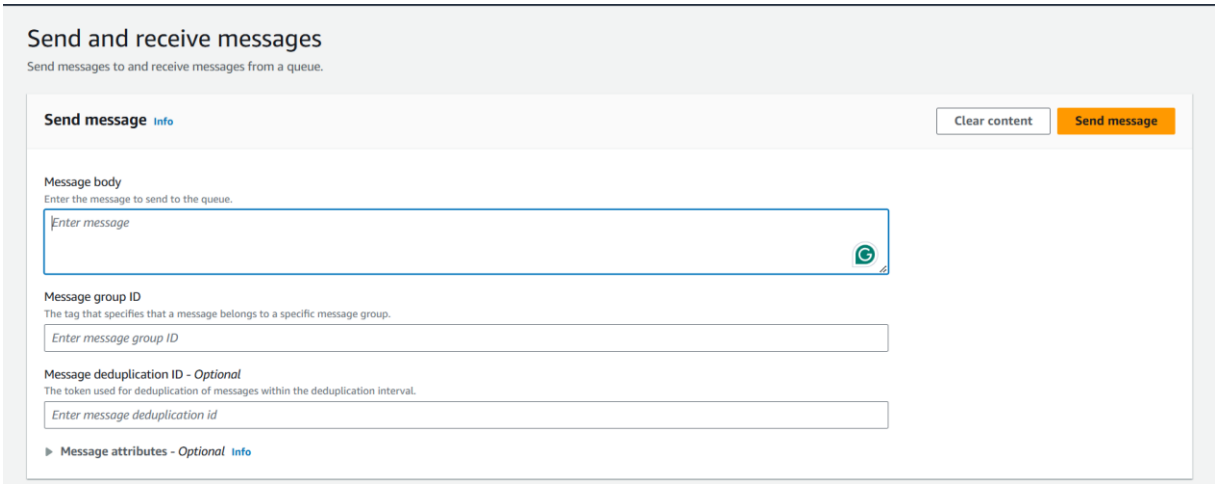


Test the SQS Queue by Sending Messages.

Send a Message to the FIFO Queue.

In the SQS Console, select MyFIFOQueue1.fifo from your list of queues.

Click on Send and receive messages.



Test the SQS Queue by Sending Messages.

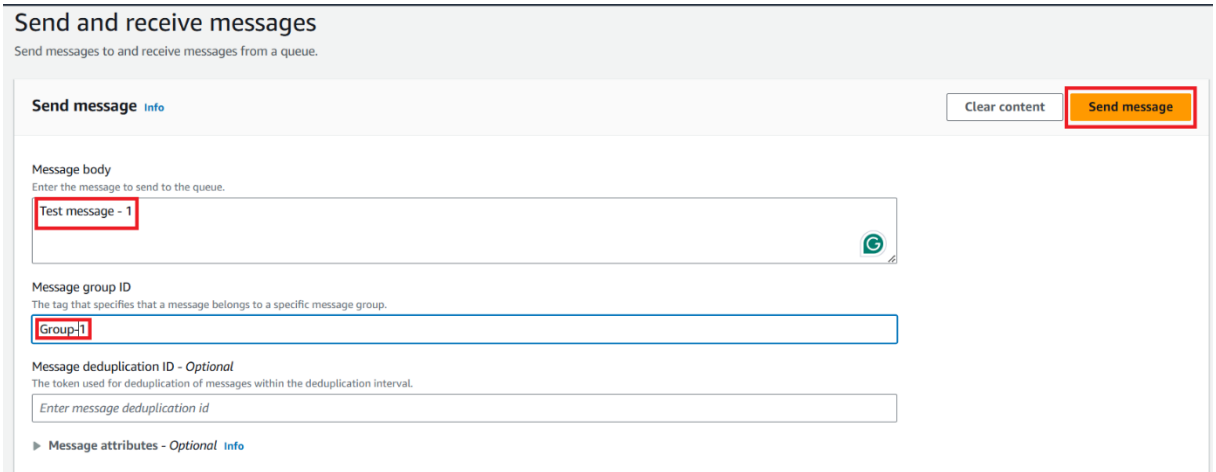
Send a Message to the FIFO Queue.

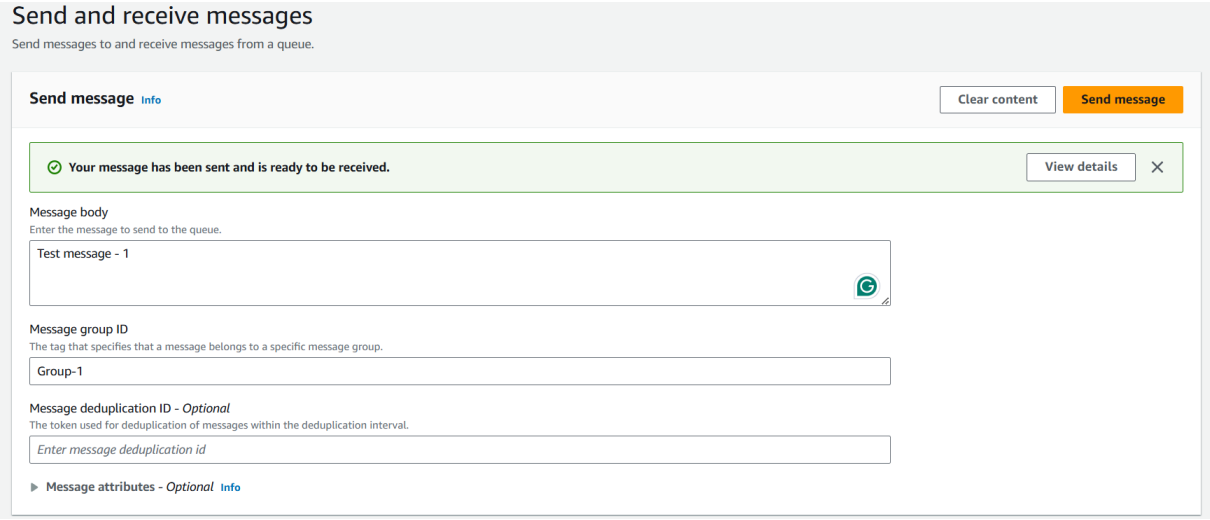
In the SQS Console, select MyFIFOQueue1.fifo from your list of queues.

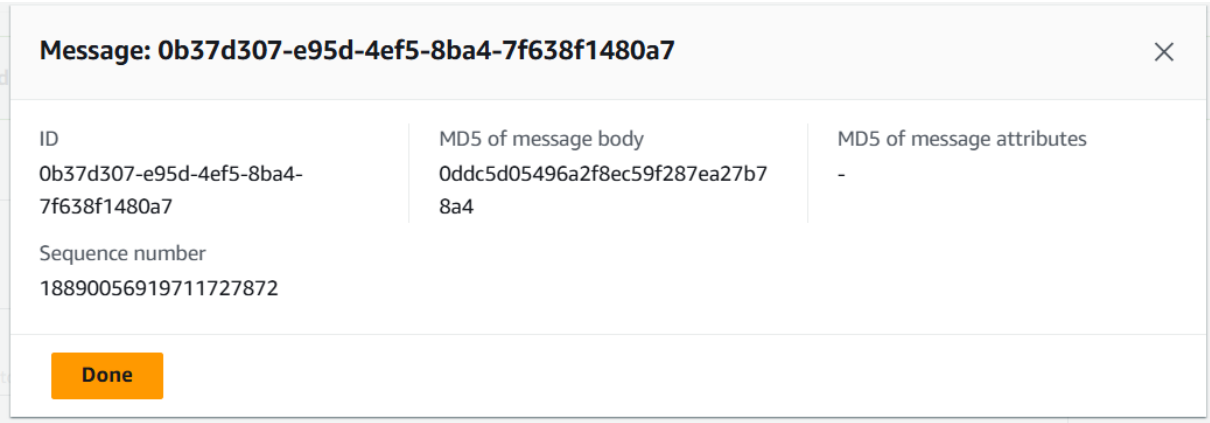
Click on Send and receive messages.

Enter Message Details. In the Message body section, type a sample message like "Test message - 1".

Enter a Message Group ID like "Group - 1". For FIFO queues, Message Group ID is required to ensure the messages are processed in the order they're sent within that group. Click Send message.



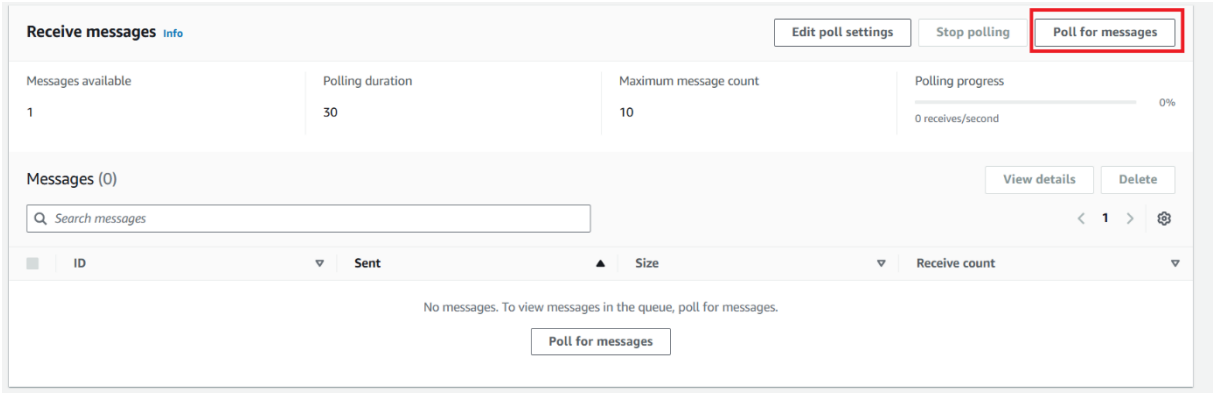


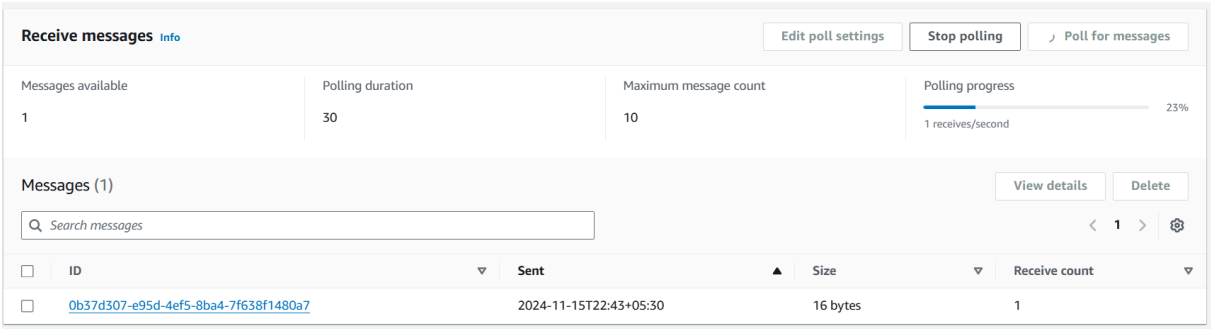


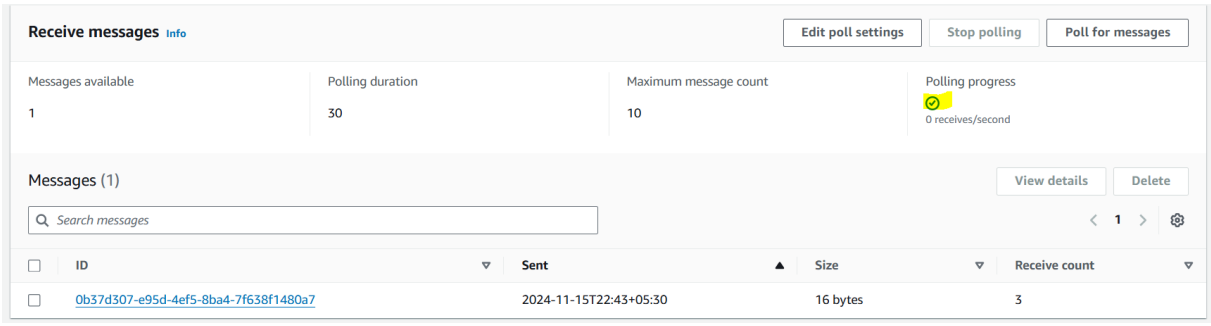
Send Additional Messages for Testing.

Send a few more messages, changing the Message body (e.g., "Test message - 2", "Test message - 3") but using the same Message Group ID.

This will help demonstrate the FIFO behaviour of the queue when messages are processed.


Receive messages Info
Edit poll settings
Stop polling
Poll for messages
Messages available
1
Polling duration
30
Maximum message count
10
Polling progress
0%
0 receives/second
Messages (0)
View details
Delete
Search messages
1
ID
Sent
Size
Receive count
No messages. To view messages in the queue, poll for messages.
Poll for messages


Receive messages Info
Edit poll settings
Stop polling
Poll for messages
Messages available
1
Polling duration
30
Maximum message count
10
Polling progress
23%
1 receives/second
Messages (1)
View details
Delete
Search messages
1
ID
Sent
Size
Receive count
0b37d307-e95d-4ef5-8ba4-7f638f1480a7
2024-11-15T22:43+05:30
16 bytes
1


Receive messages Info
Edit poll settings
Stop polling
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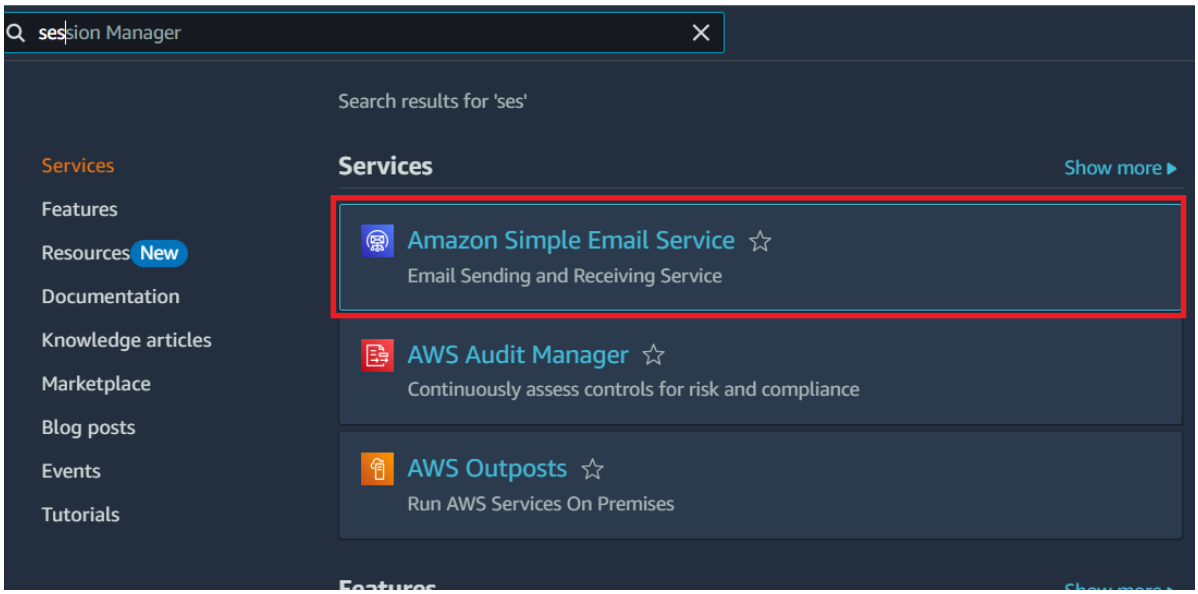
1
Polling duration
30
Maximum message count
10
Polling progress
0 receives/second
Messages (1)
View details
Delete
Search messages
1
ID
Sent
Size
Receive count
0b37d307-e95d-4ef5-8ba4-7f638f1480a7
2024-11-15T22:43+05:30
16 bytes
3

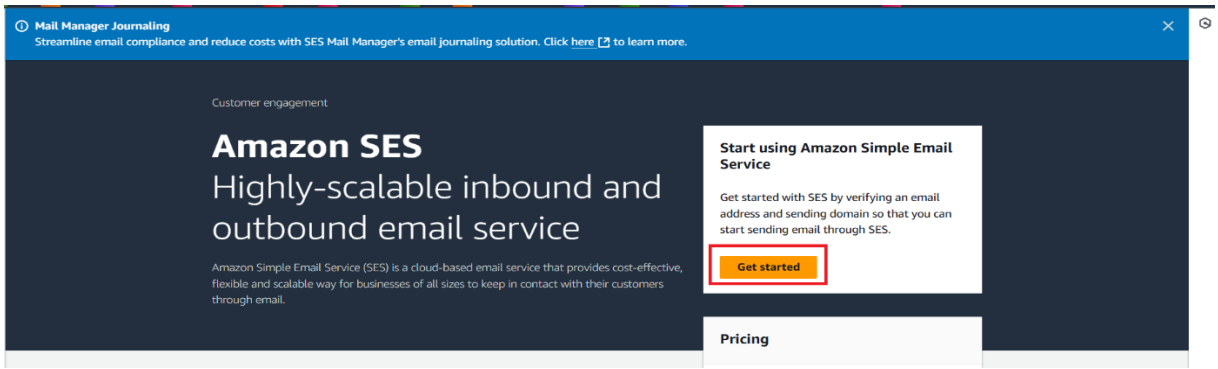
2.Registering Your Email in Amazon SES and Sending a Test Email.

Register Your Email in Amazon SES. Open the SES Console.

Log in to your AWS Management Console. Go to the SES (Simple Email Service).



Click Get Started.

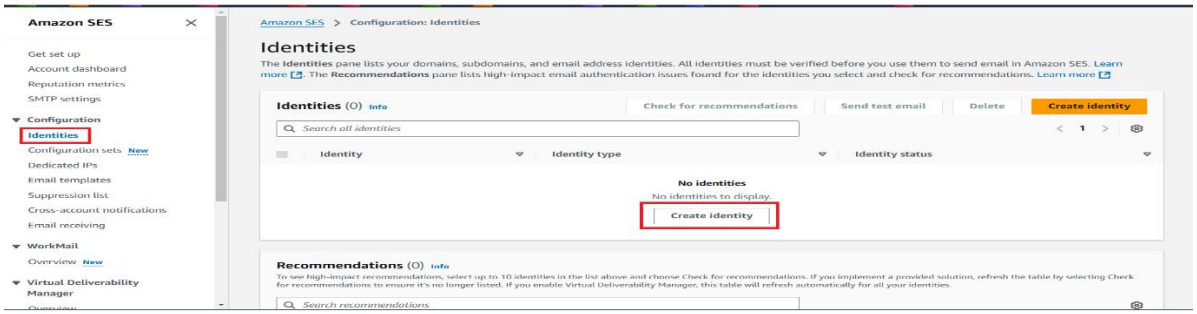


In the left sidebar, click on Verified Identities.

Click Create Identity and choose Email Address.

Enter the email address you want to verify (e.g., your-email@example.com) and click Create Identity.

AWS will send a verification email to the specified address.



Create identity

An *identity* is a domain, subdomain, or email address you use to send email through Amazon SES. Identity verification at the domain level extends to all email addresses under one verified domain identity.

Identity details Info

Identity type

- ○ **Domain**
  To verify ownership of a domain, you must have access to its DNS settings to add the necessary records.
- ◉ **Email address**
  To verify ownership of an email address, you must have access to its inbox to open the verification email.

ⓘ Sending email from an email address identity without having the domain identity verified will result in your message being quarantined or rejected depending on the domain's DMARC policy. Learn more about DMARC and how to look up a domain's DMARC policy.

Email address

hiteshchauh@gmail.com

Email address can contain up to 320 characters, including plus signs (+), equals signs (=) and underscores (_).

☐ **Assign a default configuration set**
Enabling this option ensures that the assigned configuration set is applied to messages sent from this identity by default whenever a configuration set isn't specified at the time of sending.

Tags - *optional* Info

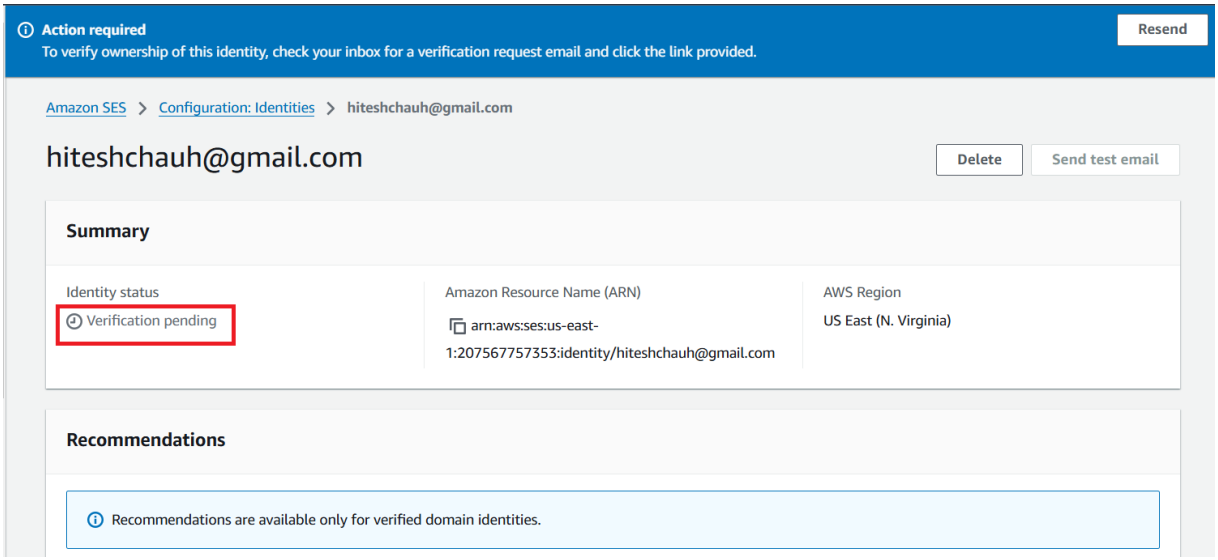
You can add one or more tags to help manage and organize your resources, including identities.

No tags associated with the resource.

Add new tag

You can add 50 more tags.

Cancel | Create identity

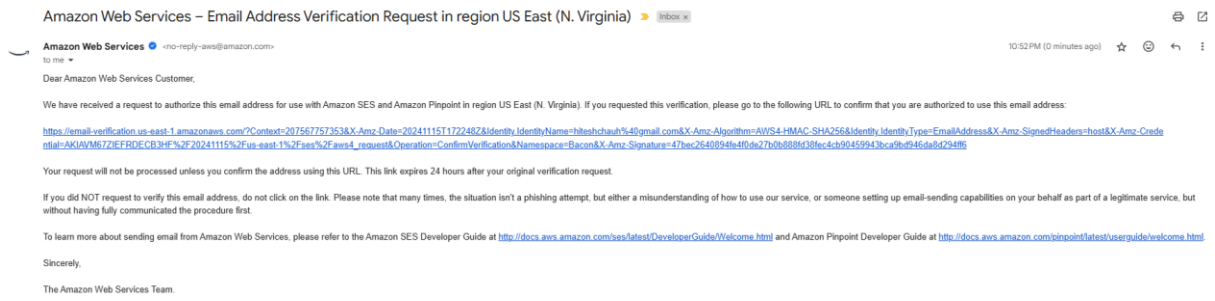


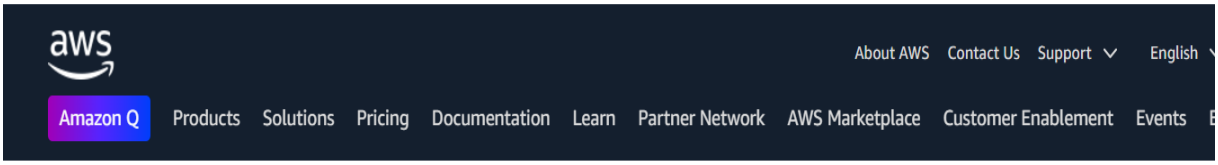
Confirm the Verification Email.

Open your email inbox.

Find the verification email from AWS and click the link to confirm your email address.

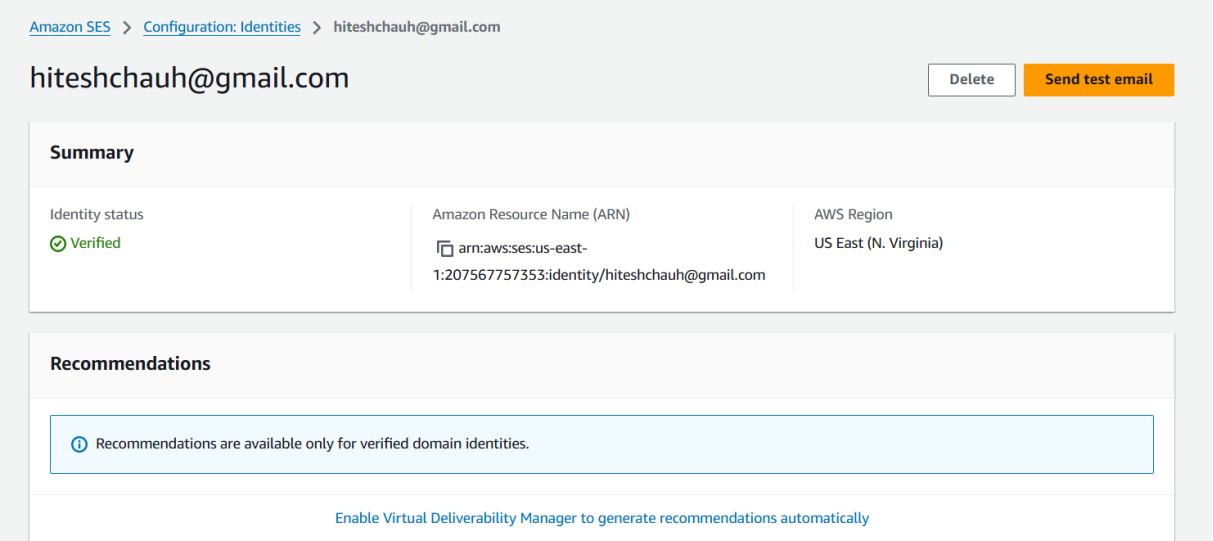
Go back to the SES console and refresh the page to confirm that your email status shows as Verified.





Congratulations!

You have successfully verified an email address. You can now start sending email from this address.

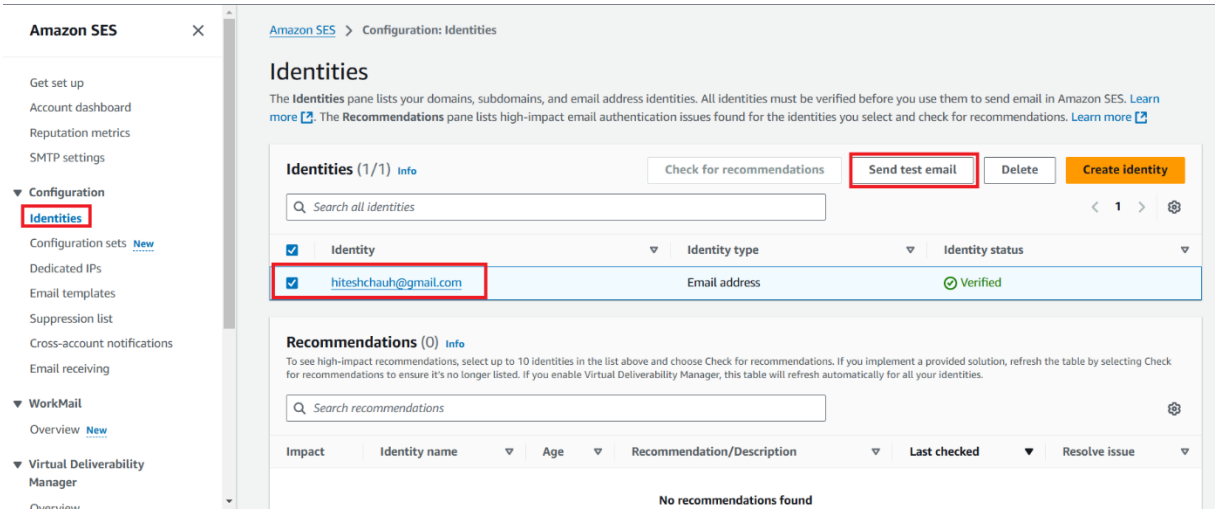


Send a Test Email Using SES.

Send a Test Email.

In the SES Console, click on Verified Identities and select the email you just verified.

Click Send a Test Email.



Send a Test Email Using SES.

Send a Test Email.

In the SES Console, click on Verified Identities and select the email you just verified.

Click Send a Test Email.

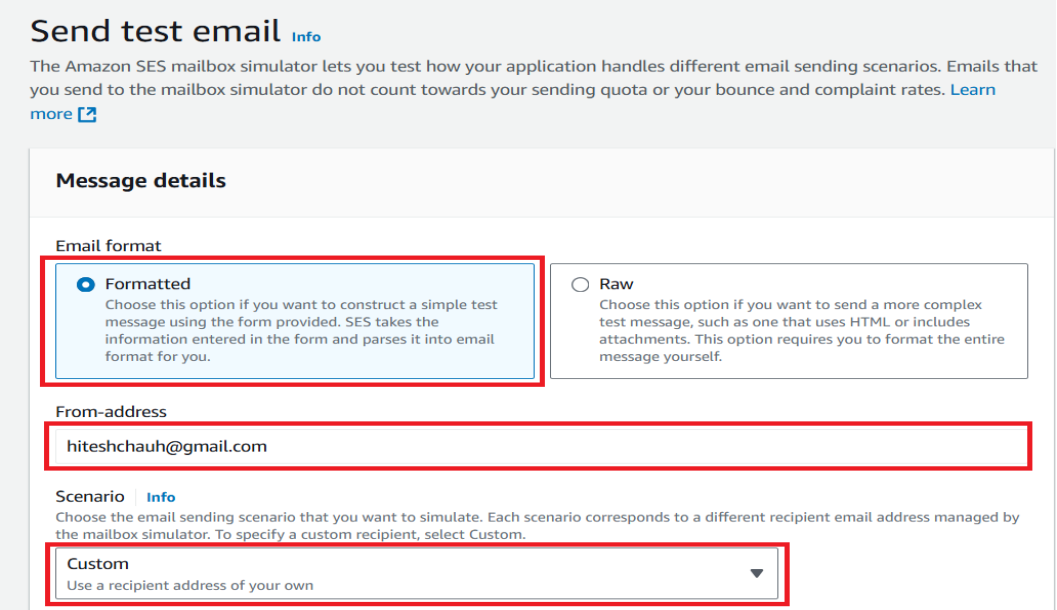
Enter Email Details. Email format: Choose Simple.

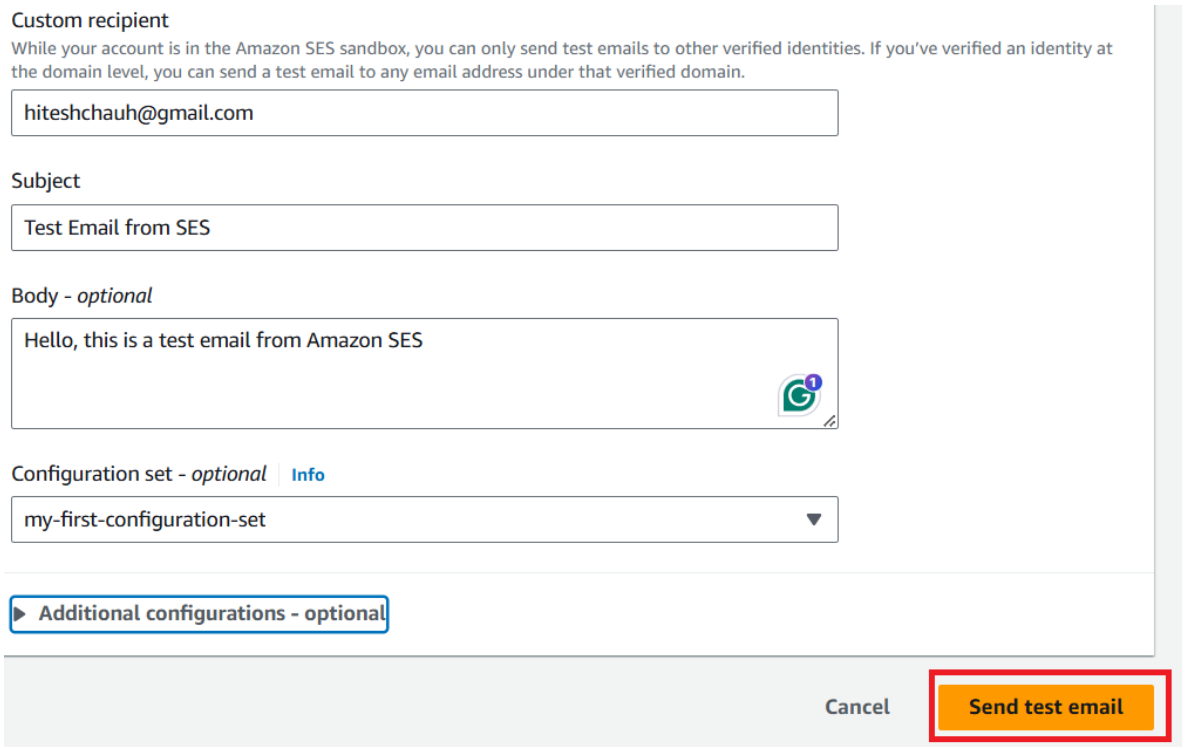
From address: Enter your own verified email address.

Scenario: Successful delivery

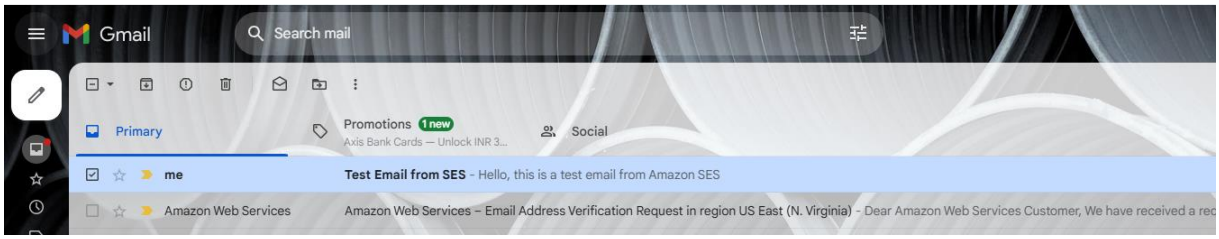
Subject: Type a subject for the email, such as "Test Email from SES".

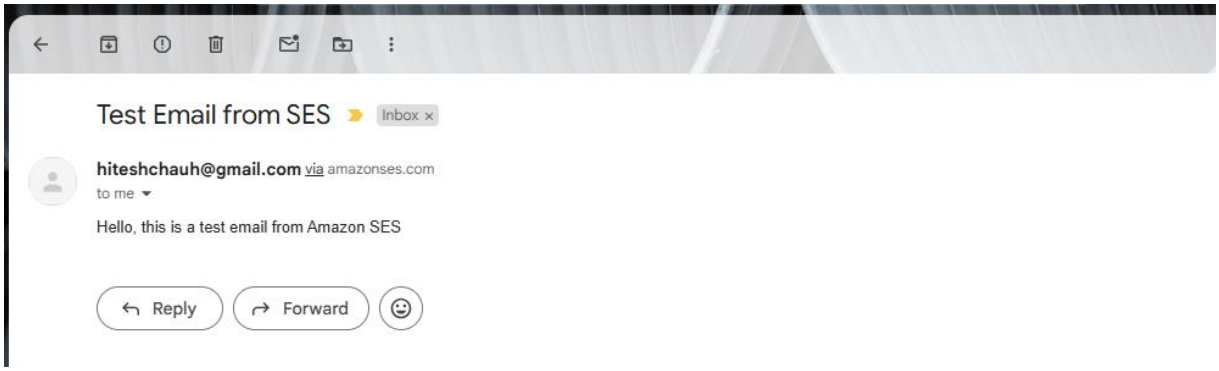
Body: Type a sample message for the email, such as "Hello, this is a test email from Amazon SES."





Verify the Test Email. Check your email inbox for the test email from SES. It should arrive within a few moments.


Gmail
Search mail
Primary
Promotions 1 new
Axis Bank Cards — Unlock INR 3...
Social
me
Test Email from SES - Hello, this is a test email from Amazon SES
Amazon Web Services
Amazon Web Services – Email Address Verification Request in region US East (N. Virginia) - Dear Amazon Web Services Customer, We have received a rec


Test Email from SES
Inbox ×
hiteshchauh@gmail.com via amazonses.com
to me
Hello, this is a test email from Amazon SES
Reply
Forward