

Assignment – 3 – CloudFormation - SES AND SQS

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:

1. Create a FIFO SQS queue and test by sending messages.
2. Register your mail in SES and send a test mail to yourself.

TASK 1: Create a FIFO SQS Queue & Test It

Step 1: Understand What You're Creating

A FIFO SQS queue:

- **Ends with .fifo**
- **Needs FifoQueue: true**
- **Needs ContentBasedDeduplication**

Create Task 1 CloudFormation Template

1. **Open Notepad**
2. **Paste the following code**
3. **Save the file as**
task1-sqs-fifo.yaml

Paste below code on notepad

AWSTemplateFormatVersion: '2010-09-09'

Description: Task 1 - Create FIFO SQS Queue

Resources:

MyFifoQueue:

Type: AWS::SQS::Queue

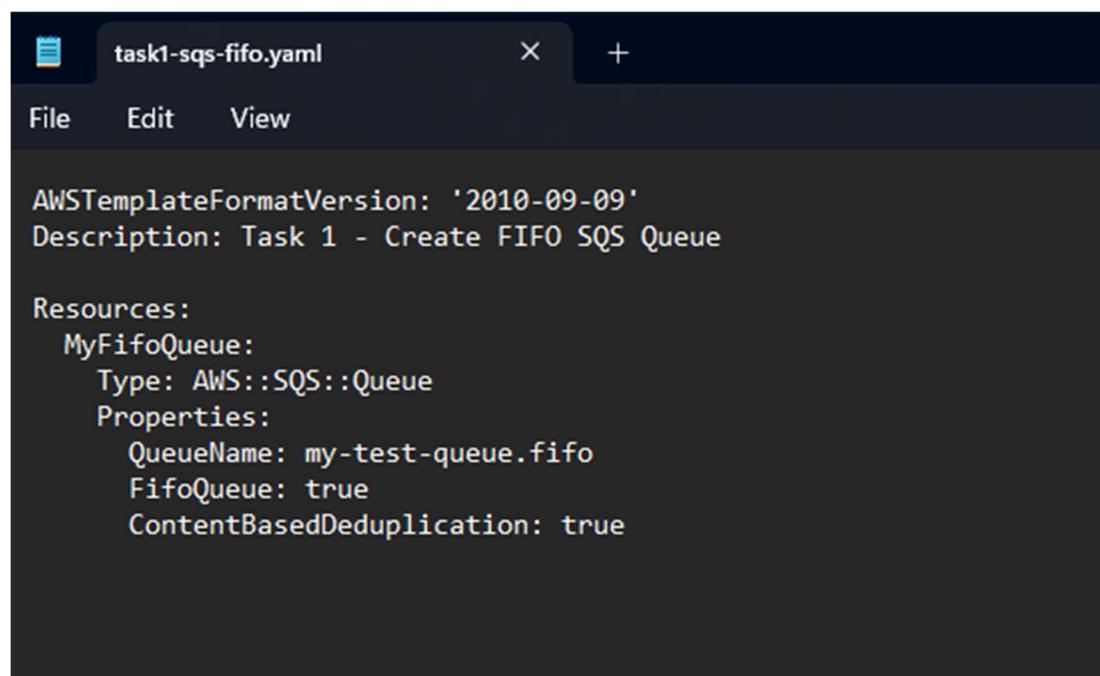
Properties:

QueueName: my-test-queue fifo

FifoQueue: true

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ContentBasedDeduplication: true

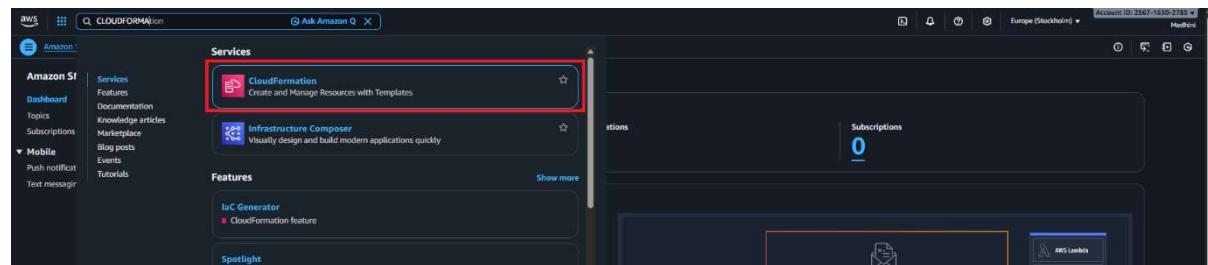


```
task1-sqs-fifo.yaml
File Edit View
AWSTemplateFormatVersion: '2010-09-09'
Description: Task 1 - Create FIFO SQS Queue

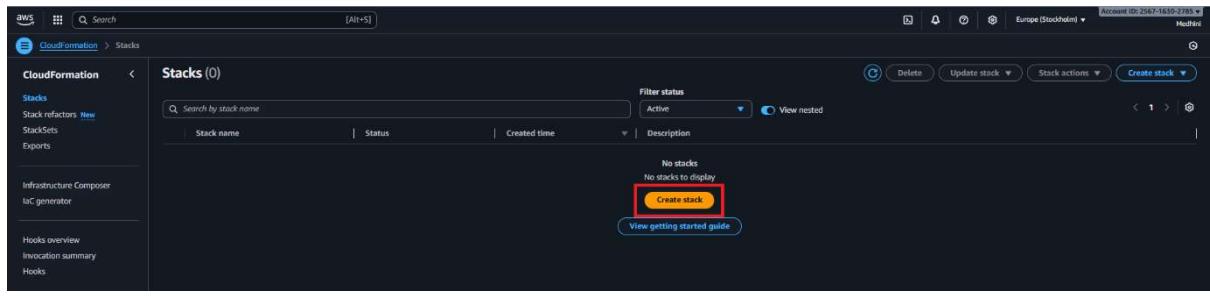
Resources:
  MyFifoQueue:
    Type: AWS::SQS::Queue
    Properties:
      QueueName: my-test-queue.fifo
      FifoQueue: true
      ContentBasedDeduplication: true
```

Step 2: Create Stack in AWS Console

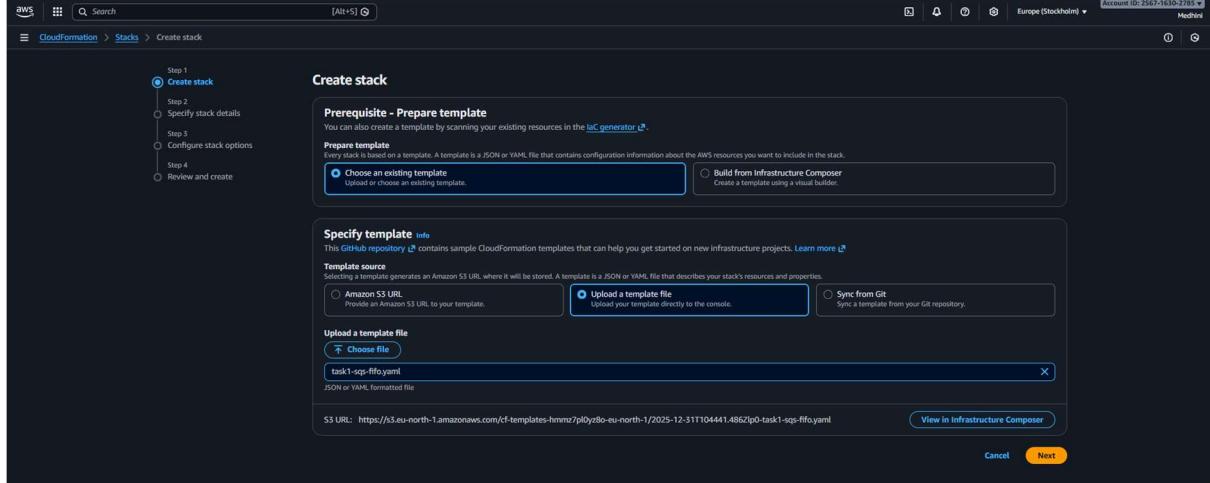
- Go to **AWS Console**
- Search **CloudFormation**
- Click **Create stack**
- Choose **Upload a template file**
- Upload **task1-sqs-fifo.yaml**
- Click **Next**
- Stack name: **task1-sqs-stack**
- Click **Next - Next**
- Check Acknowledge
- Click **Create stack**



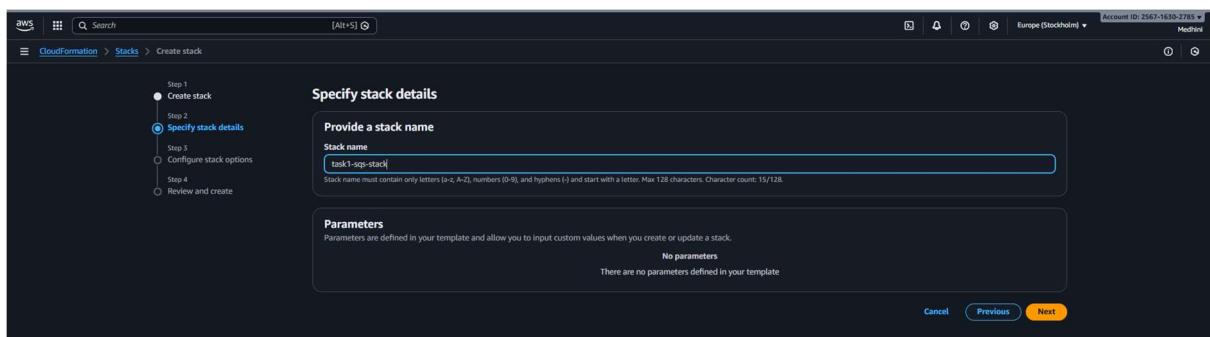
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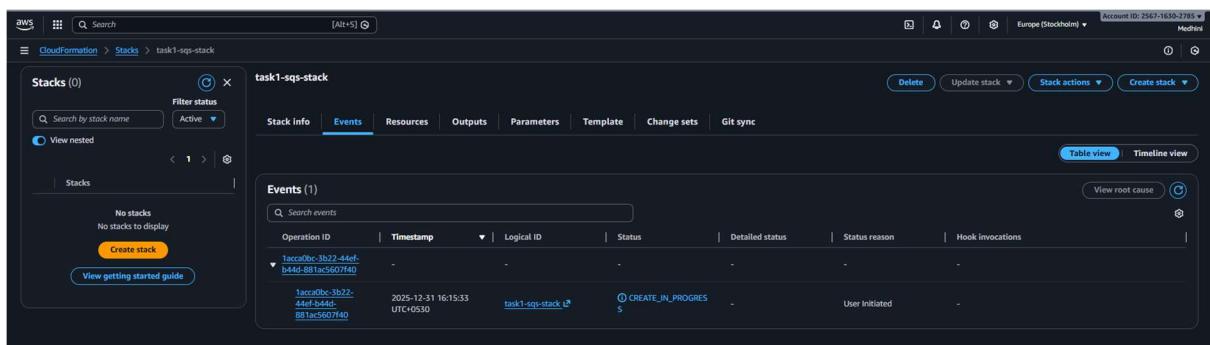
The screenshot shows the AWS CloudFormation Stacks page. On the left, there's a sidebar with options like 'Stacks', 'Stack Refactors', 'StackSets', 'Exports', 'Infrastructure Composer', and 'Hooks'. The main area is titled 'Stacks (0)' and has a search bar and a filter dropdown set to 'Active'. A large orange button labeled 'Create stack' is highlighted with a red box. Below it is a link 'View getting started guide'.



This is the first step of the 'Create stack' wizard. It shows a navigation bar with 'Step 1 Create stack' selected. Below it is a section titled 'Prerequisite - Prepare template' with a note about creating a template by scanning existing resources. It offers two options: 'Choose an existing template' (selected) and 'Build from Infrastructure Composer'. The 'Choose an existing template' section includes a 'Upload a template file' input field containing 'task1-sqs-rfo.yaml'.



This is the second step of the wizard. The navigation bar shows 'Step 2 Specify stack details' selected. It has a 'Provide a stack name' section with a 'Stack name' input field containing 'task1-sqs-stack'. Below it is a 'Parameters' section stating 'There are no parameters defined in your template'.



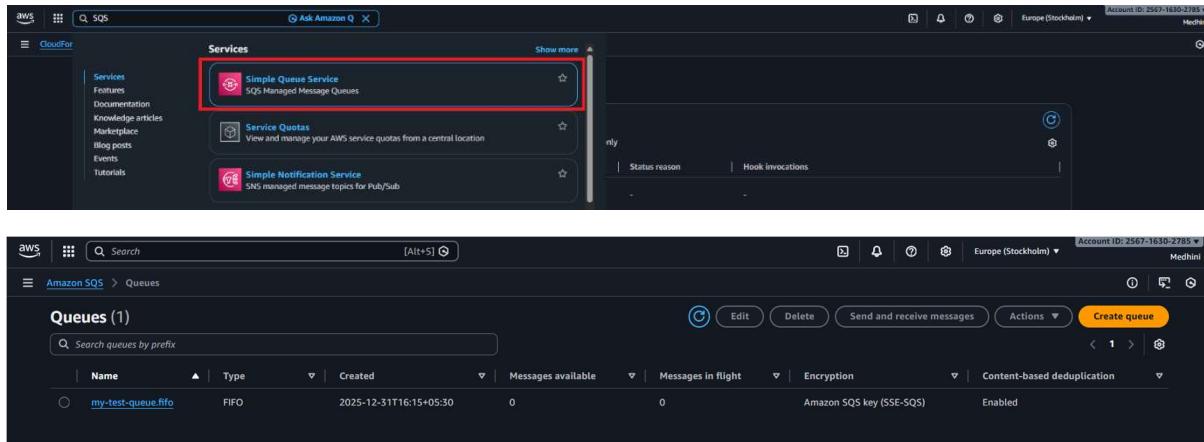
The screenshot shows the AWS CloudFormation Stacks page again, but now with a single stack named 'task1-sqs-stack'. The 'Events' tab is selected in the stack info panel, showing one event entry:

| Operation ID | Timestamp | Logical ID | Status | Detailed status | Status reason | Hook invocations |
|-------------------|------------------------------|-----------------|--------|--------------------|----------------|------------------|
| b44d-881ac5607f40 | 2025-12-31 16:15:33 UTC-0630 | task1-sqs-stack | S | CREATE_IN_PROGRESS | User Initiated | - |

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Step 4: Verify FIFO Queue

- Go to SQS
- Click Queues
- You should see
my-test-queue fifo



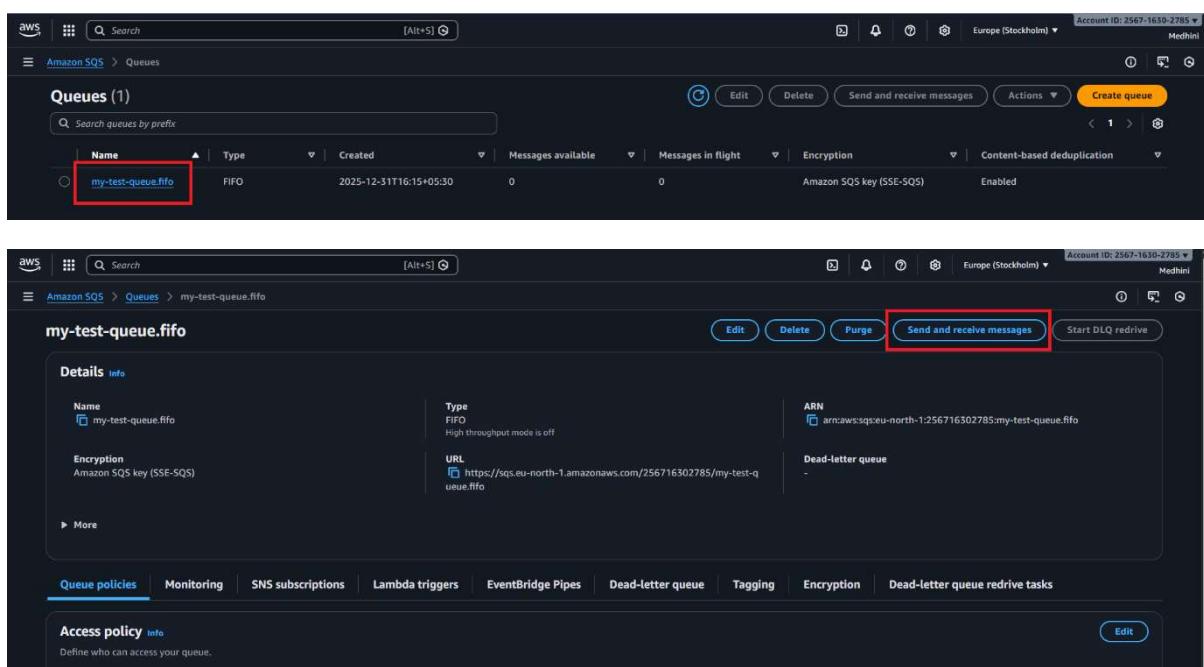
The top screenshot shows the AWS CloudFormation Services page. The 'Simple Queue Service' section is highlighted with a red box. The bottom screenshot shows the Amazon SQS Queues page, displaying a list of queues with one entry: 'my-test-queue fifo'.

Step 5: Send a Test Message (VERY IMPORTANT)

- Open the queue
- Click Send and receive messages
- Message body:

Hello from FIFO queue

Click on queue



The top screenshot shows the Amazon SQS Queues page with the 'my-test-queue fifo' queue selected. The bottom screenshot shows the queue details page for 'my-test-queue fifo', with the 'Send and receive messages' button highlighted with a red box.

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The screenshots show the AWS SQS 'Send and receive messages' interface for a FIFO queue named 'my-test-queue.fifo'. The first screenshot shows a message being sent with a message body of 'Hello from FIFO queue'. The second screenshot shows the message has been sent successfully. The third screenshot shows the message received in the 'Receive messages' list.

Screenshot 1: Send message

Message body: Hello from FIFO queue

Message group ID: group1

Send message button

Screenshot 2: Send message

Your message has been sent and is ready to be received.

View sent message details

Send message button

Screenshot 3: Receive messages

Messages available: 1

Polling duration: 30

Maximum message count: 10

Polling progress: 0 receives/second

| ID | Sent | Size | Receive count |
|--------------------------------------|------------------------|----------|---------------|
| bcedf30e-0d58-4e12-a18c-17da42c1453d | 2025-12-31T16:21+05:30 | 22 bytes | 1 |

Message received - Task 1 COMPLETE

TASK 2: Register Email in SES & Send Test Mail

Step 1: Understand SES Sandbox (Important)

By default:

- You can send emails ONLY to verified email addresses
- So we will verify your own email

Step 2: Create Task 2 CloudFormation Template

1. Open **Notepad**
2. Paste this
3. Replace `your-email@example.com` with **your real email**
4. Save as **task2-ses.yaml**

AWSTemplateFormatVersion: '2010-09-09'

Description: Task 2 - Verify SES Email Identity

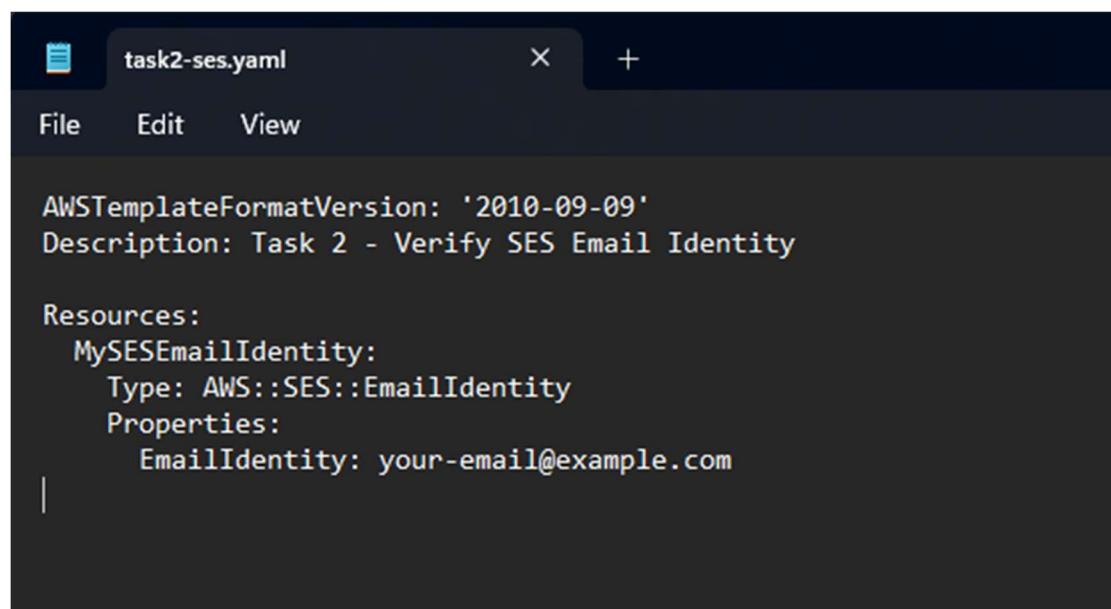
Resources:

MySESEmailIdentity:

Type: AWS::SES::EmailIdentity

Properties:

EmailIdentity: your-email@example.com



The screenshot shows a dark-themed Notepad window with the file name 'task2-ses.yaml' in the title bar. The window contains the following CloudFormation YAML code:

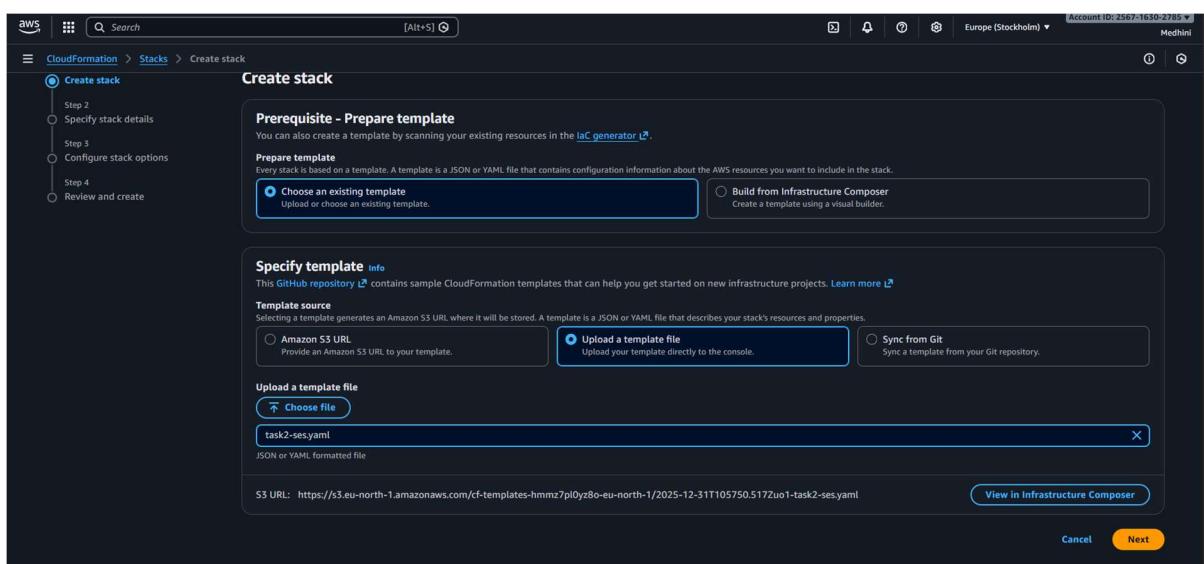
```
AWSTemplateFormatVersion: '2010-09-09'
Description: Task 2 - Verify SES Email Identity

Resources:
  MySESEmailIdentity:
    Type: AWS::SES::EmailIdentity
    Properties:
      EmailIdentity: your-email@example.com
```

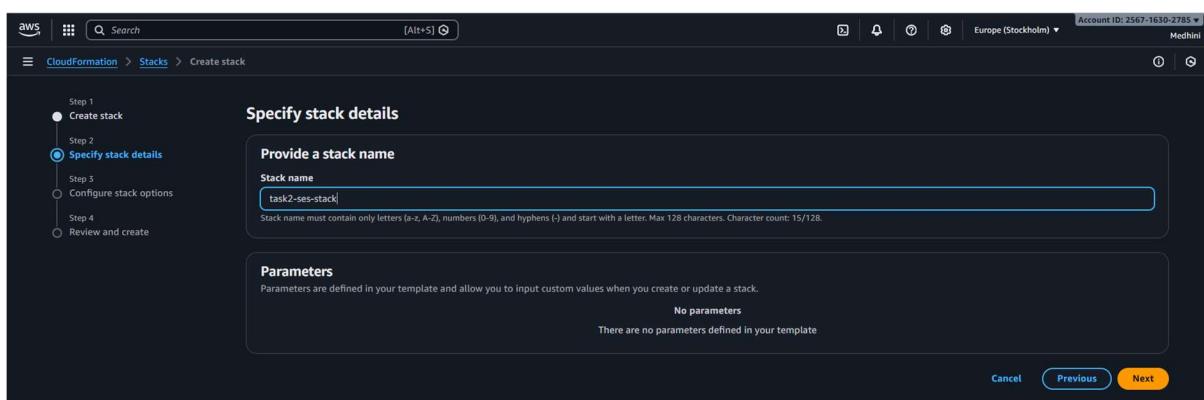
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Step 3: Create SES Stack

- Go to **CloudFormation**
- Click **Create stack**
- Upload **task2-ses.yaml**
- Stack name:
task2-ses-stack
- Click **Next - Next**
- Click **Create stack**



The screenshot shows the 'Create stack' wizard in the AWS CloudFormation console. The current step is 'Prerequisite - Prepare template'. The 'Choose an existing template' option is selected, and a file named 'task2-sesyaml' has been uploaded. Other options like 'Build from Infrastructure Composer' and 'Sync from Git' are also available.



The screenshot shows the 'Specify stack details' step of the wizard. The 'Stack name' field contains 'task2-ses-stack'. The sidebar shows the progress: Step 1 (Create stack) is completed, Step 2 (Specify stack details) is selected, Step 3 (Configure stack options), Step 4 (Review and create), and Review and create are still to come. A note at the bottom states there are no parameters defined in the template.

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The screenshot shows the AWS CloudFormation console with the 'task2-ses-stack' selected. The 'Events' tab is active, showing a single event: 'CREATE_IN_PROGRESS' for the stack creation. The event details are as follows:

| Operation ID | Timestamp | Logical ID | Status | Detailed status | Status reason | Hook |
|--|------------------------------|-----------------|--------------------|-----------------|----------------|------|
| 3f919596-e876-40ff-adea-a0a7079324f8e1 | 2025-12-31 16:28:37 UTC+0530 | task2-ses-stack | CREATE_IN_PROGRESS | - | User initiated | - |

Verify Email (VERY IMPORTANT)

1. Check your **email inbox**
2. You will get an email from **AWS SES**
3. Click **Verify email address**

Now SES is allowed to send mail to you

The screenshot shows the AWS SES console under the 'Email addresses validation' section. An email address, 'medhinipicturea@gmail.com', is entered in the 'Enter email(s)' field. The 'Validate addresses' button is visible.

Verify email address

The screenshot shows the AWS SES console under the 'Configuration: identities' section for the email address 'medhinipicturea@gmail.com'. A blue banner at the top says 'Action required' with the sub-instruction 'To verify ownership of this identity, check your inbox for a verification request email and click the link provided.' The 'Resend' button is visible. The 'Summary' section shows 'Identity status: Verification pending' and 'Amazon Resource Name (ARN): arn:aws:ses:eu-north-1:123456789012:identity/medhinipicturea@gmail.com'. The 'AWS Region' is listed as 'Europe (Stockholm)'. The 'Recommendations' section is also visible.

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Go to email

Amazon Web Services – Email Address Verification Request in region Europe (Stockholm) [Inbox x](#)

Amazon Web Services  <no-reply-aws@amazon.com>
to me ▾

Dear Amazon Web Services Customer,

We have received a request to authorize this email address for use with Amazon SES and Amazon Pinpoint in region Europe (Stockholm). If you requested this verification, please go to the following URI address:

https://email-verification.eu-north-1.amazonaws.com/?Context=256716302785&X-Amz-Date=20251231T113425Z&Identity.IdentityName=medhinipicture%40gmail.com&X-Amz-Algorithm=AWS4-HMAC-SignedHeaders=host&X-Amz-Credential=AKIA4Y3674RZBFCNGZUE%2F20251231%2Feu-north-1%2Fses%2Faws4_request&Operation=ConfirmVerification&Namespace=Bacon&X-Amz-Signature=b1d8e1cf94462c30

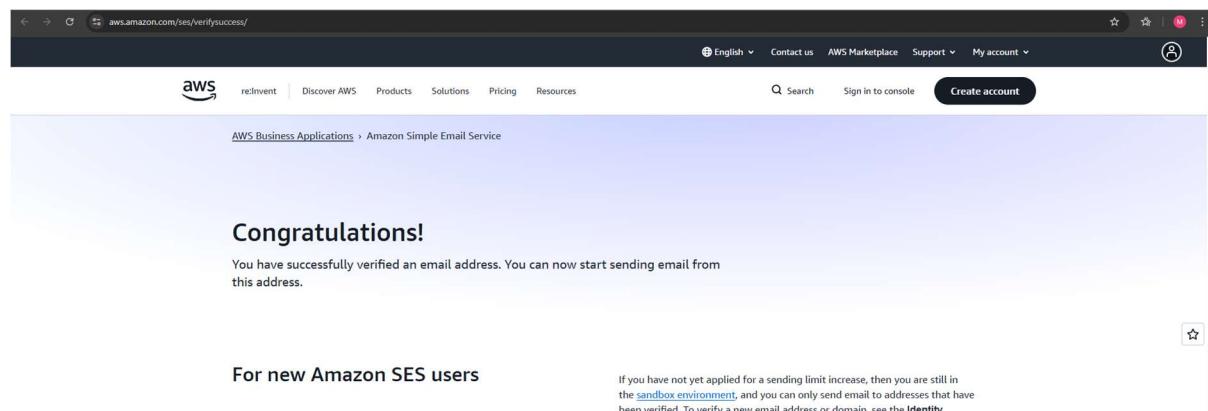
Your request will not be processed unless you confirm the address using this URL. This link expires 24 hours after your original verification request.

If you did NOT request to verify this email address, do not click on the link. Please note that many times, the situation isn't a phishing attempt, but either a misunderstanding of how to use our service, or it's behalf as part of a legitimate service, but without having fully communicated the procedure first.

To learn more about sending email from Amazon Web Services, please refer to the Amazon SES Developer Guide at <http://docs.aws.amazon.com/ses/latest/DeveloperGuide>Welcome.html> and Amazon <http://docs.aws.amazon.com/pinpoint/latest/userguide/welcome.html>.

Sincerely,

The Amazon Web Services Team.



AWS Business Applications > Amazon Simple Email Service

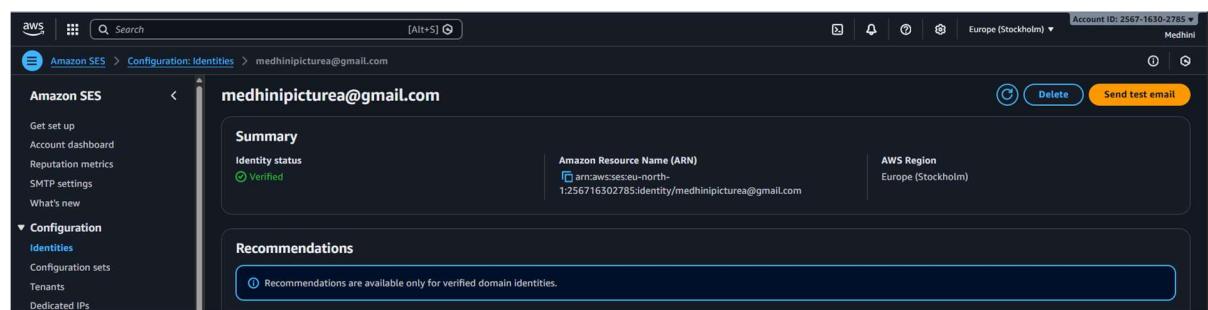
Congratulations!

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

For new Amazon SES users

If you have not yet applied for a sending limit increase, then you are still in the [sandbox environment](#), and you can only send email to addresses that have been verified. To verify a new email address or domain, see the [Identity](#)

Send Test email



Amazon SES > Configuration: Identities > medhinipicturea@gmail.com

Summary

Identity status:  Verified

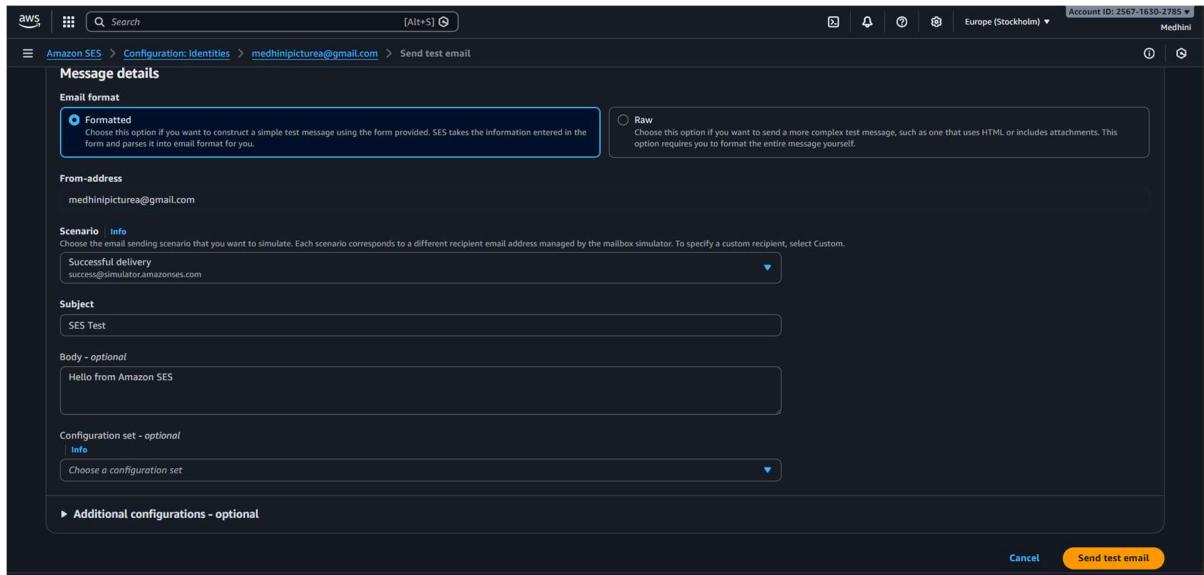
Amazon Resource Name (ARN): <arn:aws:ses:eu-north-1:256716302785:identity/medhinipicturea@gmail.com>

AWS Region: Europe (Stockholm)

Recommendations

Recommendations are available only for verified domain identities.

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Important note

- The simulator address **will NOT send an email to your inbox**
- This still **counts as a successful test**
- AWS instructors & assignments **accept this**

“Verified an email identity in Amazon SES and successfully sent a test email using the SES mailbox simulator.”