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2KE20CS032

Assignment 50

Understood. To follow the provided instructions and create the files/directory using the same name and case as provided in the task steps, please provide me with the specific names and case instructions for the files/directory you want to create.

AWS

Assignment: 1 : Amazon Messaging Platform

Overview

Configure simple notification service(SNS)

Create a lambda function and subscribe to the sns topic

Configure simple queue service & Simple email

Configure simple notification service(SNS)

- 1 Navigate to SNS dashboard navigate to topic and click on create new topic
2. You can choose the type as standard
3. Provide the topic name, display name
4. Navigate to Access policy Define who can publish messages to the topic -> Only the topic owner. Define who can subscribe to this topic -> Everyone
5. Navigate to IAM role, select create a new service role click Create new roles
6. Click on Allow and new service role will be created now
7. Click on create topic now and your sns topic should be created now
8. Navigate to subscriptions tab and click on create subscription(confirm through mail)
9. In the choose the topic from the dropdown, choose the protocol ex: email
10. Leave all others default, and then click on create subscription
11. Navigate to topics page, select the topic and then click public message
12. Provide the subject, provide the message body, and click on publish message
13. Verify you received the subscription mail

Create topic

Details

Type [Info](#)

Topic type cannot be modified after topic is created

 FIFO (first-in, first-out)

- Strictly-preserved message ordering
- Exactly-once message delivery
- High throughput, up to 300 publishes/second
- Subscription protocols: SQS

 Standard

- Best-effort message ordering
- At-least once message delivery
- Highest throughput in publishes/second
- Subscription protocols: SQS, Lambda, HTTP, SMS, email, mobile application endpoints

Name

aws-sns-topic1

Maximum 256 characters. Can include alphanumeric characters, hyphens (-) and underscores (_).

Display name - optional [Info](#)

To use this topic with SMS subscriptions, enter a display name. Only the first 10 characters are displayed in an SMS message.

aws-sns-topic1

Maximum 100 characters.

▼ Access policy - optional [Info](#)

This policy defines who can access your topic. By default, only the topic owner can publish or subscribe to the topic.

Choose method

 Basic

Use simple criteria to define a basic access policy.

 Advanced

Use a JSON object to define an advanced access policy.

Publishers

Specify who can publish messages to the topic.

 Only the topic owner

Only the owner of the topic can publish to the topic

Subscribers

Specify who can subscribe to this topic.

 Everyone

Any AWS account can subscribe to the topic

JSON preview

```
{  
  "Version": "2008-10-17",  
  "Id": "__default_policy_ID",  
  "Statement": [  
    {  
      "Sid": "__default_statement_ID",  
      "Effect": "Allow",  
      "Principal": {  
        "AWS": "*"  
      },  
      "Action": [  
        "SNS:Publish",  
        "SNS:RemovePermission",  
        "SNS:GetTopicAttributes"  
      ]  
    }  
  ]  
}
```

One-click Role Creation

Click Allow to give SNS write access to resources in your account. This will allow SNS to use Cloudwatch Logs on your behalf.



The following role name(s) already existed, and timestamps have been appended for your convenience.



- SNSSuccessFeedback
- SNSFailureFeedback

▶ SNSSuccessFeedback_1704095775394

[Change Role name](#)

Provides write access to AWS Services and Resources

▶ SNSFailureFeedback_1704095775394

[Change Role name](#)

Provides write access to AWS Services and Resources

[Cancel](#)

[Create Roles](#)

IAM roles

Amazon SNS requires permission to write logs to CloudWatch Logs. You can use separate roles for successful and failed message deliveries.

Service role [Info](#)

Use existing service role

Choose an existing service role from your account

Create new service role

Create a new service role in your account

[Create new roles](#)

IAM role for successful deliveries

arn:aws:iam::405819896469:role/SNSSuccessFeedback_1704095775394

IAM role for failed deliveries

arn:aws:iam::405819896469:role/SNSFailureFeedback_1704095775394

Create subscription

Details

Topic ARN

arn:aws:sns:ap-south-1:405819896469:aws-sns-topic1 [X](#)

Protocol

The type of endpoint to subscribe

Email ▾

Endpoint

An email address that can receive notifications from Amazon SNS.

kartik.ccs.aws@gmail.com

After your subscription is created, you must confirm it. [Info](#)

AWS Notification - Subscription Confirmation ➤ Inbox

 **aws-sns-topic1** <no-reply@sns.amazonaws.com>
to me ▾ 1:29 PM (0 n)

You have chosen to subscribe to the topic:
arn:aws:sns:ap-south-1:405819896469:aws-sns-topic1

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):
[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)

← Reply → Forward 😊

Create a lambda function and subscribe to the sns topic

1. Navigate to lambda services and navigate to the function -> create function
2. Select use a blueprint option, search for sns message using node.js
3. Provide the function name , select the existing lambda role you have created before
4. Choose the sns topic that you have created
5. Click on create function it will get created and verify the sns subscription page
6. Publish a new message and verify the mail is triggered for lambda

Configure simple queue service subscribe to sns topic to receive the message

1. Navigate to sqs dashboard and click on create queue
2. Provide the queue name and leave all the configurations as default and proceed creation of sqs
3. Now you can subscribe to Amazon SNS topic that you have created previously
4. Navigate to the sns topic to view the subscription
5. You can publish a message from SNS topic
6. Navigate to sqs -> queues -> send and receive messages and verify the message has been received. Click poll for messages and click on the message received
7. You can also send messages from queue and check the messages are updated on

clicking poll for messages

AWS Serverless Application Repository applications have moved to [Create application](#).

Author from scratch
Start with a simple Hello World example.

Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.

Container
Select a container

Basic information [Info](#)

Blueprint name
Process messages pushed to an SNS topic
An Amazon SNS trigger that logs the message pushed to the SNS topic. [nodejs18.x](#)

Function name
Enter a name that describes the purpose of your function.
lambda-sns-checkout

Runtime
nodejs18.x

Architecture
x86_64

Congratulations! Your Lambda function "lambda-sns-checkout" has been successfully created and configured with aws-sns-topic1 as a trigger. Choose Test to input a test event and test your function.

Function overview [Info](#) [Export to](#)

[Diagram](#) [Template](#)

 **lambda-sns-checkout**
 Layers (0)

 **SNS** [+ Add destination](#)

[+ Add trigger](#)

Description
An Amazon SNS trigger

Last modified
35 seconds ago

Function ARN
[arn:aws:lambda:at](#)

Function URL [Info](#)

[Code](#) [Test](#) [Monitor](#) [Configuration](#) [Aliases](#) [Versions](#)

[Amazon SNS](#) > Subscriptions

Subscriptions (3) [Edit](#) [Delete](#) [Request confirmation](#) [Confirm subscription](#)

Search

ID	Endpoint	Status	Protocol	Topic
46af1d0f-0d4a-41aa-8e9b-5eaa0...	arn:aws:lambda:ap-south-1:40581...	Confirmed	LAMBDA	aws-sns-
bb5d4938-7a87-44e8-8559-4427...	kartik.ccs.aws@gmail.com	Confirmed	EMAIL	aws-sns-
Pending confirmation	aws-ccs-sns@gmail.com	Pending confirmation	EMAIL	aws-sns-

lamda-triggered ➔ Inbox

 aws-sns-topic1 <no-reply@sns.amazonaws.com>1:41PM (0 minutes ago) ☆
to me ▾
lamda-triggered-test

--
If you wish to stop receiving notifications from this topic, please click or visit the link below to unsubscribe:
<https://sns.ap-south-1.amazonaws.com/unsubscribe.html?SubscriptionArn=arn:aws:sns:ap-south-1:405819896469:aws-sns-topic1:bb5d4938-7a87-44e8-8559-4427d440f8e5&Endpoint=kartik.ccs.aws@gmail.com>
Please do not reply directly to this email. If you have any questions or comments regarding this email, please contact us at <https://aws.amazon.com/support>

<input type="checkbox"/>	lamdafunction	-	Zip
<input type="checkbox"/>	lamdaanodes-new	-	Zip
<input type="checkbox"/>	nodejs-python	-	Zip
<input type="checkbox"/>	lambdafunctionn	-	Zip
<input type="checkbox"/>	lamda-sns-checkout	An Amazon SNS trigger that logs the message pushed to the SNS topic.	Zip
<input type="checkbox"/>	rds-nodejs	-	Zip
<input type="checkbox"/>	rdsss	-	Zip
<input type="checkbox"/>	my-lambda-func-1	-	Zip

Create a lambda function and subscribe to sqs

- 1 Navigate to lambda services and navigate to the function -> create function
2. Select use a blueprint option, search for sqs poller and click
3. Provide function name
4. Create a new role, provide the role name
5. Select the sqs queue you have created, leave all other settings as default and create the function
6. Now publish a sns message from the topic you have created Now navigate to lambda functions open the sqs function you have created, navigate to monitor->logs->view logs in cloud watch
8. Click on the logs to view the message

Create queue

Details

Type

Choose the queue type for your application or cloud infrastructure.

Standard Info

At-least-once delivery, message ordering isn't preserved

- At-least once delivery
- Best-effort ordering

FIFO Info

First-in-first-out delivery, message ordering is preserved

- First-in-first-out delivery
- Exactly-once processing

i You can't change the queue type after you create a queue.

Name

aws-sqs-topic1

A queue name is case-sensitive and can have up to 80 characters. You can use alphanumeric characters, hyphens (-), and underscores (_).

Create subscription

Details

Topic ARN

arn:aws:sns:ap-south-1:405819896469:aws-sns-topic1 X

Protocol

The type of endpoint to subscribe

Amazon SQS



Endpoint

Only Amazon SQS standard queues will be listed and can receive notifications from an Amazon SNS standard topic.

arn:aws:sqs:ap-south-1:405819896469:aws-sqs-topic1 X

Enable raw message delivery

i After your subscription is created, you must confirm it. [Info](#)

▼ Subscription filter policy - *optional* [Info](#)

This policy filters the messages that a subscriber receives.

Subscription filter policy

▼ Redrive policy (dead-letter queue) - *optional* [Info](#)

Send undeliverable messages to a dead-letter queue.

Redrive policy (dead-letter queue)

Subscriptions (4)					
	ID	Endpoint	Status	Protocol	Topic
○	35a79dfa-1f30-49d9-b7fd-b7484...	arn:aws:sqs:ap-south-1:40581989...	Confirmed	SQS	aws-sns-topic1
○	46af1d0f-0d4a-41aa-8e9b-5eaa0...	arn:aws:lambda:ap-south-1:40581...	Confirmed	LAMBDA	aws-sns-topic1
○	bb5d4938-7a87-44e8-8559-4427...	kartik.ccs.aws@gmail.com	Confirmed	EMAIL	aws-sns-topic1
○	Pending confirmation	aws-ccs-sns@gmail.com	Pending confirmation	EMAIL	aws-sns-01

Message: 8d75ee49-3d4a-4c4c-b6cc-8153bf8d3600

Body Attributes Details

the topics

Done

Body	Attributes	Details	
ID 8d75ee49-3d4a-4c4c-b6cc-8153bf8d3600	Size 10 bytes	MD5 of message body f6d8a48ec02ccc7b18e0dc4dc14b8aa4	Sender account ID AIDAV47GAGKK5MR3FV3AI
Sent 2024-01-01T13:52+05:30	First received 2024-01-01T13:52+05:30	Receive count 1	Message attributes count -
Message attributes size -	MD5 of message attributes -		

Send and receive messages

Send messages to and receive messages from a queue.

Send message [Info](#)

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

Message body

Enter the message to send to the queue.

the topics

Basic information [Info](#)

Blueprint name

Hello world function

A starter AWS Lambda function.

Function name

Enter a name that describes the purpose of your function.

lamda-sqs-checkout

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

Runtime

nodejs18.x

Architecture

x86_64

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 policy while it's being created.

Role name

Enter a name for your new role.

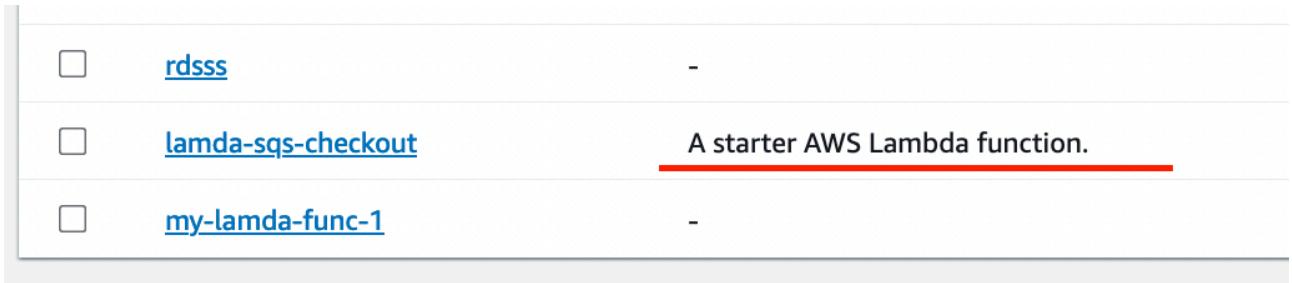
sqslambda

sqs

X

Amazon **SQS** poller permissions
SQS

Amazon SQS poller permissions X
SQS



Log streams Tags Anomaly detection - new Metric filters Subscription filters Contributor Invitations

Log streams (1)

Filter log streams or try prefix search Exact match

	Log stream	Last
<input type="checkbox"/>	2024/01/01/[&LATEST]bdb95b6278c1441e9028f76f8c3aaee4	2024

		Timestamp (Local)	Message	Log stream
i can specify	<input type="checkbox"/>	▶ 2024-01-01T14:05:50.291+05:30	START RequestId: 3dad9e2a-f215-5d48-8d65-c02689b0afe1 Version: \$LATEST	Link
	<input type="checkbox"/>	▶ 2024-01-01T14:05:50.380+05:30	2024-01-01T08:35:50.380Z 3dad9e2a-f215-5d48-8d65-c02689b0afe1 INFO value1 = undefined	Link
	<input type="checkbox"/>	▶ 2024-01-01T14:05:50.380+05:30	2024-01-01T08:35:50.380Z 3dad9e2a-f215-5d48-8d65-c02689b0afe1 INFO value2 = undefined	Link
	<input type="checkbox"/>	▶ 2024-01-01T14:05:50.381+05:30	2024-01-01T08:35:50.381Z 3dad9e2a-f215-5d48-8d65-c02689b0afe1 INFO value3 = undefined	Link
Clear all	<input type="checkbox"/>	▶ 2024-01-01T14:05:50.400+05:30	END RequestId: 3dad9e2a-f215-5d48-8d65-c02689b0afe1	Link
	<input type="checkbox"/>	▶ 2024-01-01T14:05:50.401+05:30	REPORT RequestId: 3dad9e2a-f215-5d48-8d65-c02689b0afe1 Duration: 109.00 ms Billed Duration: 110 ms Memory ...	Link

Steps to configure Simple email service

1. Navigate to SES dashboard, you need to create identity
2. Choose the identity type as Email address and provide the email id(To verify ownership of an email address, you must have access to its inbox to open the verification email.)
3. Create the identity
4. Click on the identity you have created, and click on send a test mail
5. Choose the scenario, subject, body
6. Expand additional configuration you can provide reply to address and cc if you wish to provide

7. Click on send test mail, you should receive a test mail in your inbox

Review and get started with SES

Ensure that the email address and domain name that you entered are accurate and don't contain any typos.

Step 1: Add your email address Edit

Add your email address

Email address
kartik.ccs.aws@gmail.com

Step 2: Add your sending domain Edit

Add your sending domain

Sending domain
kartik.ccs.aws@gmail.com

Cancel Previous Get started

can request production access and start sending emails to your customer base.

Send test email



(Optional but recommended)
SES mailbox simulator lets you test how your action handles different email sending scenarios.

Send test email

Verify sending domain



Click on the button below and add the generated CNAME records to your domain's DNS provider.

Create identity

Waiting for email verification No domain identities found

Create identity

A *verified 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.

Email address

kartik.ccs.aws@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.

Amazon Web Services – Email Address verification Request in region

▶ [Inbox](#) ×

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 go to the following URL to confirm that you are authorized to use this email address:

https://email-verification.ap-south-1.amazonaws.com/?Context=405819896469&X-Amz-Date=20240101T083915Z&IAlgorithm=AWS4-HMAC-SHA256&Identity.IdentityType=EmailAddress&X-Amz-SignedHeaders=host&X-Amz-Credential=AWS4-HMAC-SHA256%2F20240101%2Fap-south-1%2Fses%2Faws4_request&Operation=ConfirmVerification&Namespace=Bacon&X-Amz-Signature=43d7278c19e85983f2887

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

If you did NOT request to verify this email address, do not click on the link. Please note that many times, the situation may occur where an unauthorized person attempts to use our service, or someone setting up email-sending capabilities on your behalf as part of a legitimate service, but without your knowledge.

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

Sincerely,

Get production access and start sending emails [Info](#)

Complete the following steps to verify your email address and sending domain so that you can request production access and start sending emails to your custom

Verify email address



kartik.ccs.aws@gmail.com

To verify ownership of this email, check your inbox for a verification request email and click the link provided.

[View all identities](#)

Verified

Send test email



(Optional but recommended)

Amazon SES mailbox simulator lets you test how your application handles different email sending scenarios.

[Send test email](#)

[Amazon SES](#) > [Configuration: Verified identities](#) > kartik.ccs.aws@gmail.com > [Send test email](#)

Send test email [Info](#)

The Amazon SES mailbox simulator lets you test how your application handles different email sending scenarios. Emails that you send to the mailbox simulator do not count towards your sending quota or your bounce and complaint rates. [Learn more](#)

Message details

Email format

Formatted

Choose this option if you want to construct a simple test message using the form provided. SES takes the information entered in the form and parses it into email format for you.

Raw

Choose this option if you want to send a more complex test message, such as one that uses HTML or includes attachments. This option requires you to format the entire message yourself.

From-address

kartik.ccs.aws@gmail.com

Scenario [Info](#)

Choose the email sending scenario that you want to simulate. Each scenario corresponds to a different recipient email address managed by the mailbox simulator. To specify a custom recipient, select Custom.

Successful delivery

success@simulator.amazones.com

Subject

suceessfull

Body - optional

suceessfull

Configuration set - optional [Info](#)

my-first-configuration-set

Get production access and start sending emails Info

Following steps to verify your email address and sending domain so that you can request production access and start sending emails to your customers.

Verify email address



kartik.ccs.aws@gmail.com

To verify ownership of this email, check your inbox for a verification request email and click the link provided.

[View all identities](#)

Verified

Send test email



(Optional but recommended)

Amazon SES mailbox simulator lets you test how your application handles different email sending scenarios.

[Send another test email](#)

Test email sent

New message from AWS INBOX



aws-sns-topic1 <no-reply@sns.amazonaws.com>

to me ▾

Hey this message from aws owner kartik user lusy

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If you wish to stop receiving notifications from this topic, please click or visit the link below to unsubscribe.
<https://sns.ap-south-1.amazonaws.com/unsubscribe.html?SubscriptionArn=arn:aws:sns:ap-south-1:8559-4427d440f8e5&Endpoint=kartik.ccs.aws@gmail.com>