

AWS LAMBDA TASK

Problem Statement: You work for XYZ Corporation. Your corporation wants to launch a new web-based application and they do not want their servers to be running all the time. It should also be managed by AWS. Implement suitable solutions.

Tasks To Be Performed:

1. Create a sample Python Lambda function.
2. Set the Lambda Trigger as SQS and send a message to test invocations

Go to AWS Console click on lambda

Create a function

The screenshot shows the AWS Lambda 'Create function' page in the AWS console. The browser address bar shows the URL: `ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/create/function`. The page has a sidebar with 'Lambda' and 'Functions' selected. The main content area is titled 'Create function' with an 'Info' link. Below the title, a note states: 'AWS Serverless Application Repository applications have moved to [Create application](#).' There are three tabs: 'Author from scratch' (selected), 'Use a blueprint', and 'Container image'. The 'Author from scratch' tab contains a 'Basic information' section with the following fields: 'Function name' (with the value 'Mylamda'), 'Runtime' (set to 'Node.js 20.x'), and 'Architecture' (set to 'x86_64'). The 'Permissions' section is partially visible at the bottom.

Create function [Info](#)

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 image
Select a container image to deploy for your function.

Basic information

Function name
Enter a name that describes the purpose of your function.

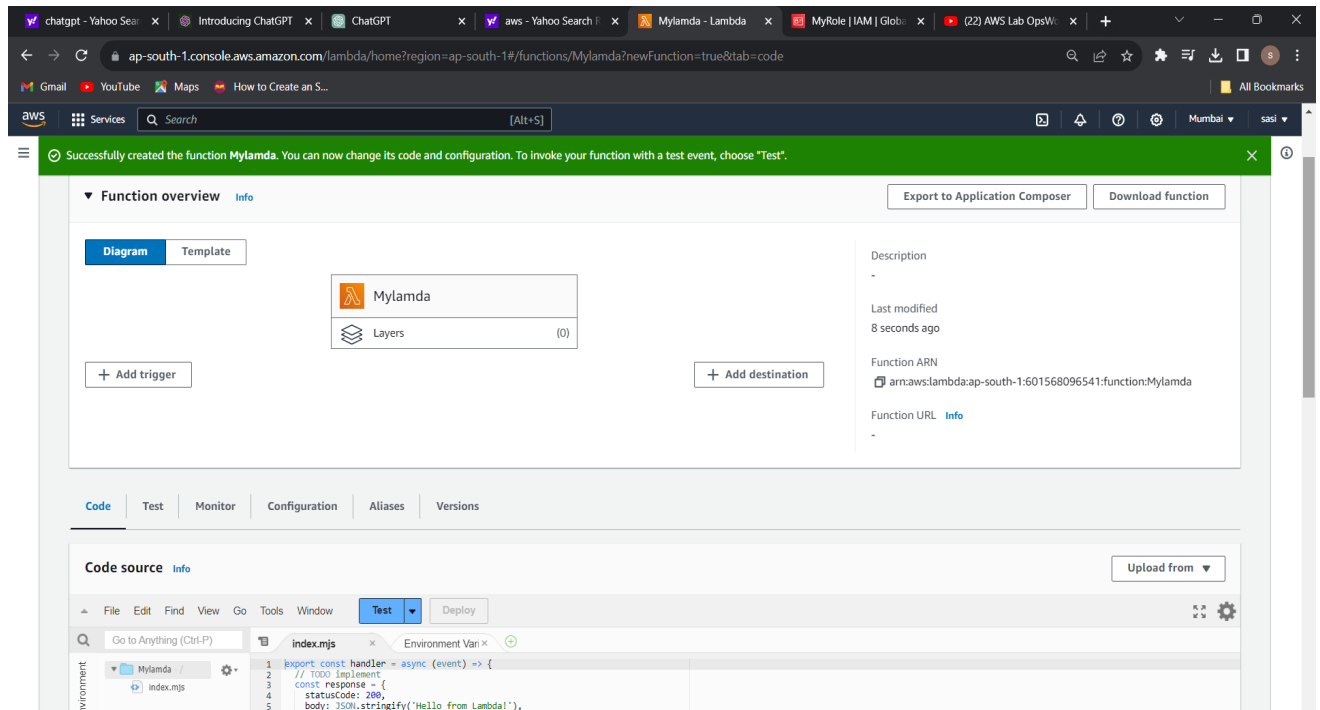
Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime [Info](#)
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

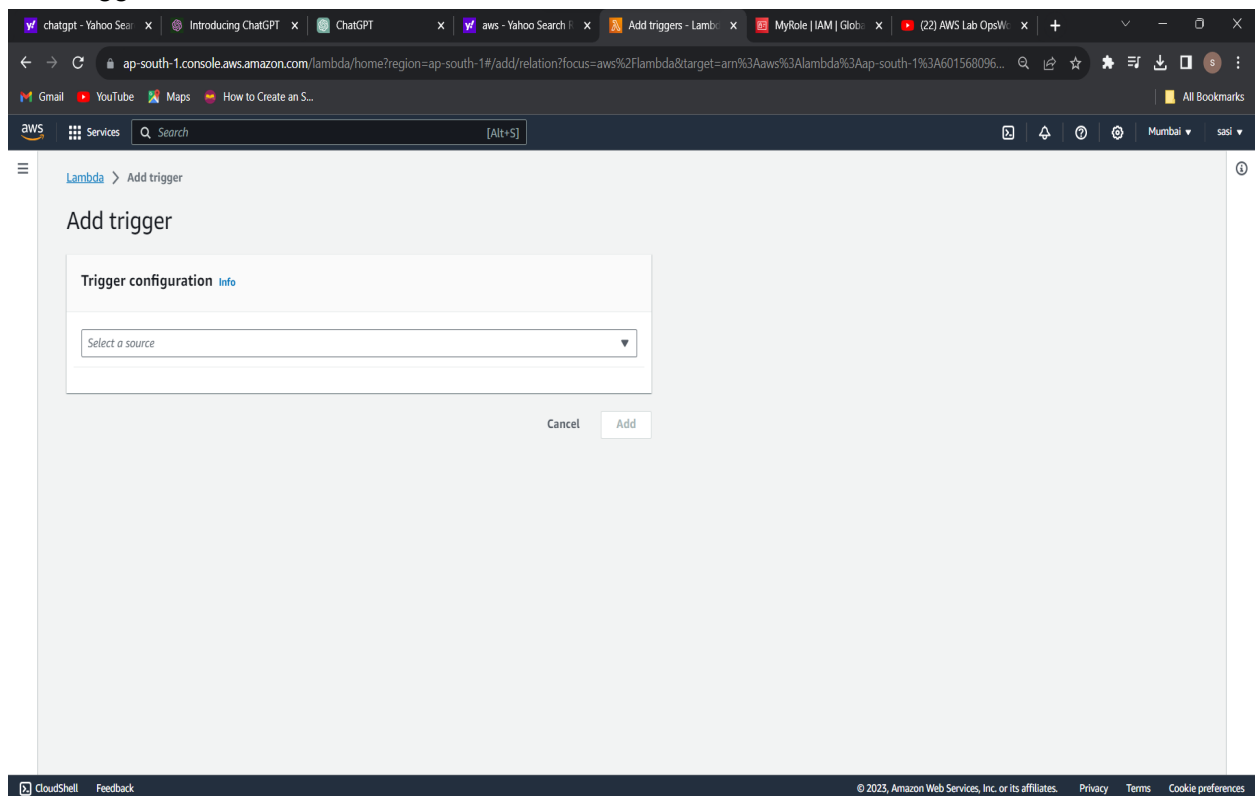
Architecture [Info](#)
Choose the instruction set architecture you want for your function code.
☒ x86_64
☐ arm64

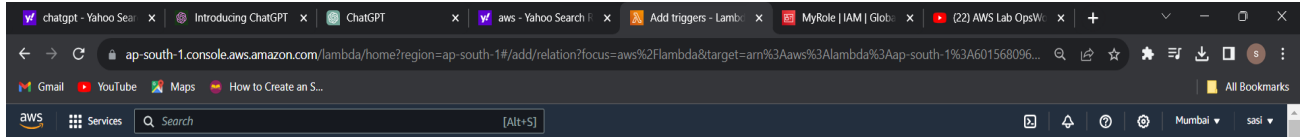
Permissions [Info](#)
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

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Add Trigger in that add SQS





Lambda > Add trigger

8

ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/add/relation?focus=aws%2Flambda&target=arn%3Aaws%3Alambda%3Aap-south-1%3A601568096...

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Add trigger

Trigger configuration Info

SQS

aws event-source-mapping polling queue

SQS queue

Choose or enter the ARN of an SQS queue.

Q

☒ Activate trigger

Select to activate the trigger now. Keep unchecked to create the trigger in a deactivated state for testing (recommended).

Batch size - optional

The number of records in each batch to send to the function.

10

The maximum is 10,000 for standard queues and 10 for FIFO queues.

Batch window - optional

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

0

When the batch size is greater than 10, set the batch window to at least 1 second.

Maximum concurrency - optional

The maximum number of concurrent function instances that the SQS event source can invoke.

Add trigger

0

ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/add/relation?focus=aws%2Flambda&target=arn%3Aaws%3Alambda%3Aap-south-1%3A601568096...

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Add trigger

Trigger configuration Info

SQS

aws event-source-mapping polling queue

SQS queue

Choose or enter the ARN of an SQS queue.

Q

arn:aws:sqs:ap-south-1:601568096541:my.fifo

X

☒ Activate trigger

Select to activate the trigger now. Keep unchecked to create the trigger in a deactivated state for testing (recommended).

Batch size - optional

The number of records in each batch to send to the function.

10

The maximum is 10,000 for standard queues and 10 for FIFO queues.

Batch window - optional

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

0

When the batch size is greater than 10, set the batch window to at least 1 second.

Maximum concurrency - optional

The maximum number of concurrent function instances that the SQS event source can invoke.

Specify a value between 2 and 1000. To deactivate, leave the box empty.

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ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/create/function

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aws Services Search [Alt+S]

Basic information

Function name
Enter a name that describes the purpose of your function.
MylamdaSQS
Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime Info
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.
Python 3.9

Architecture Info
Choose the instruction set architecture you want for your function code.
☒ x86_64
☐ arm64

Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

► Change default execution role

► Advanced settings

Cancel Create function

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ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/create/function

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aws Services Search [Alt+S]

Python 3.9

Architecture Info
Choose the instruction set architecture you want for your function code.
☐ x86_64
☒ arm64

Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

▼ Change default execution role

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

Policy templates - optional Info
Choose one or more policy templates.

ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/create/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.

MySQL

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

Policy templates - optional [Info](#)

Choose one or more policy templates.

Amazon SQS poller permissions [X](#)

Advanced settings

Please correct the errors above.

Cancel [Create function](#)

ap-south-1.console.aws.amazon.com/lambda/home?region=ap-south-1#/functions/MyLambdaSQS?newFunction=true&tab=code

Successfully created the function MyLambdaSQS. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

[Lambda](#) > [Functions](#) > MyLambdaSQS

MyLambdaSQS

[Throttle](#) [Copy ARN](#) [Actions](#)

Function overview [Info](#)

[Export to Application Composer](#) [Download function](#)

Diagram [Template](#)

MyLambdaSQS

Layers (0)

[+ Add trigger](#) [+ Add destination](#)

Description

-

Last modified

6 seconds ago

Function ARN

arn:aws:lambda:ap-south-1:601568096541:function:MyLambdaSQS

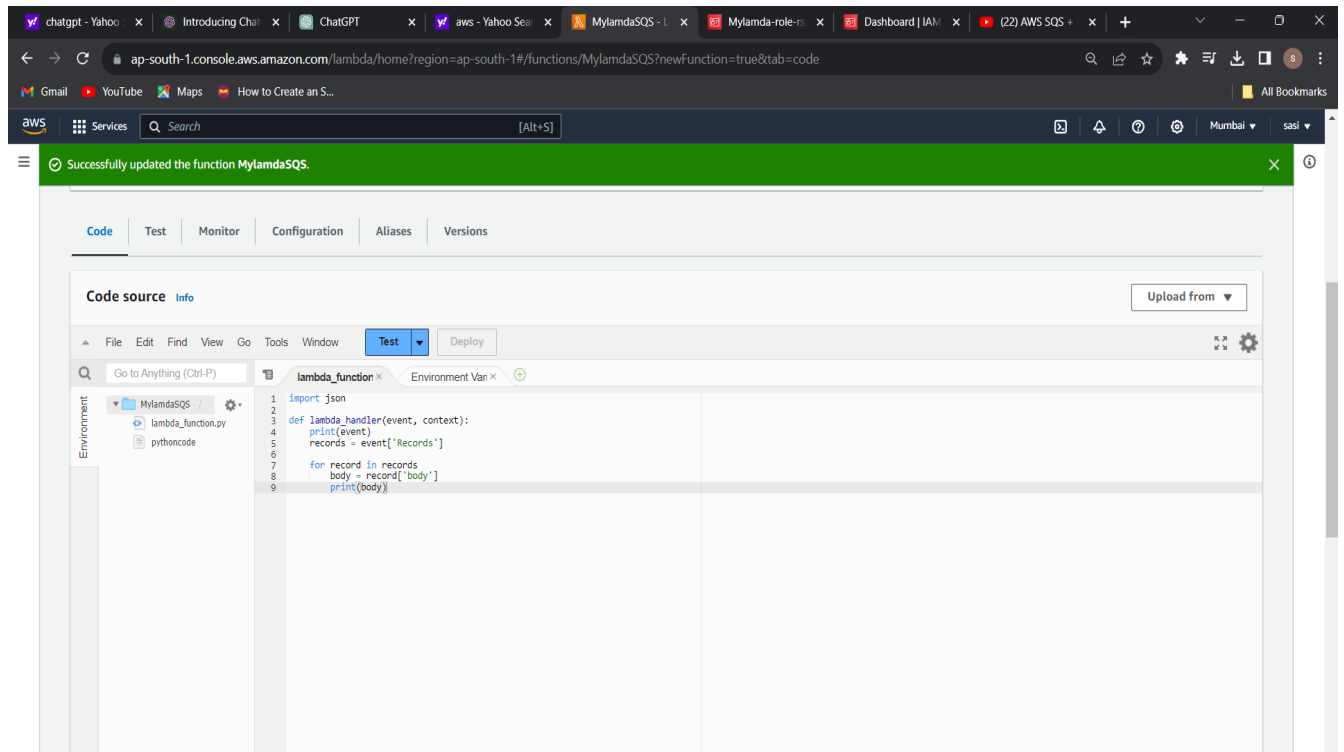
Function URL [Info](#)

-

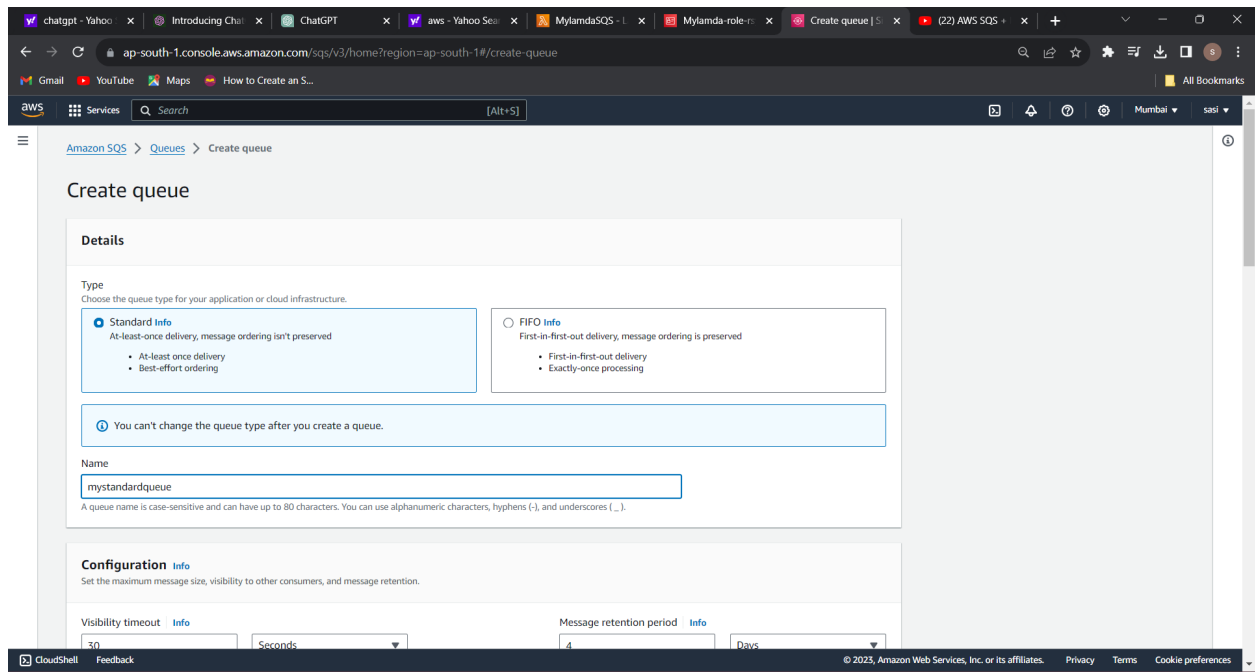
[Code](#) [Test](#) [Monitor](#) [Configuration](#) [Aliases](#) [Versions](#)

Code source [Info](#)

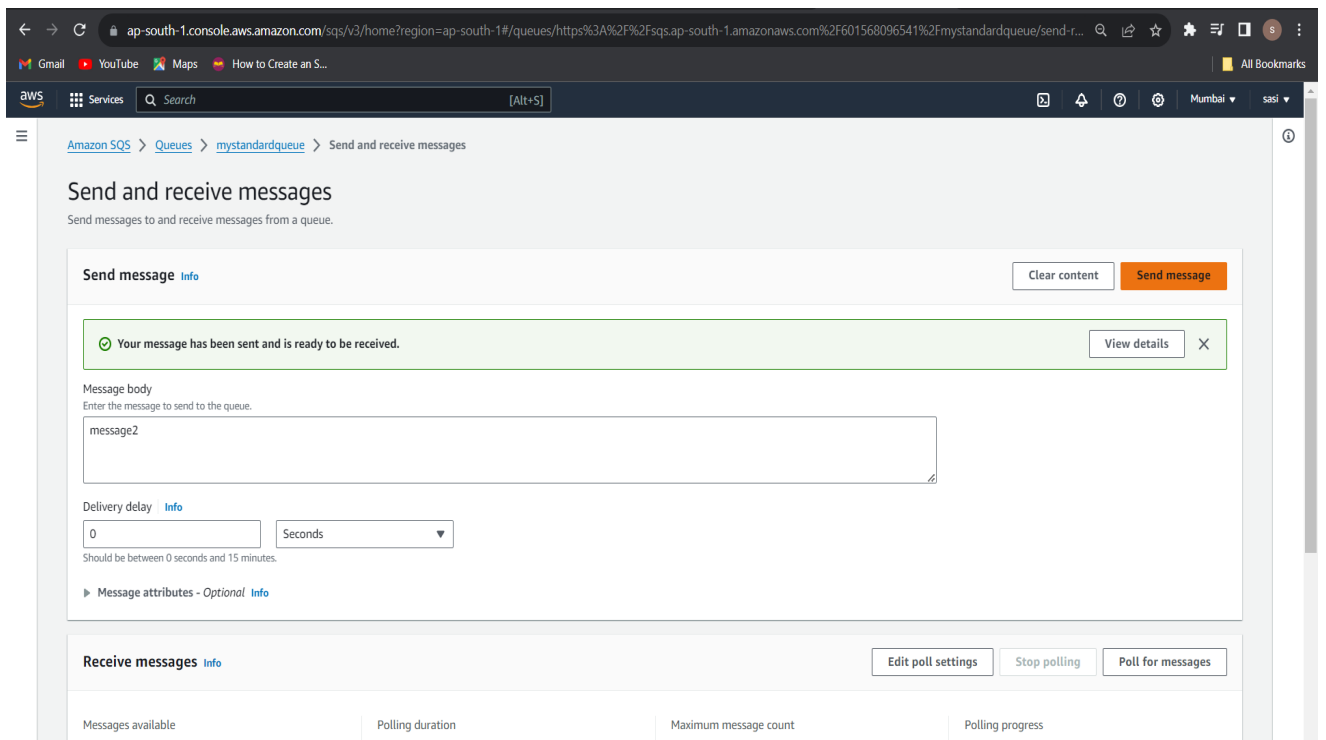
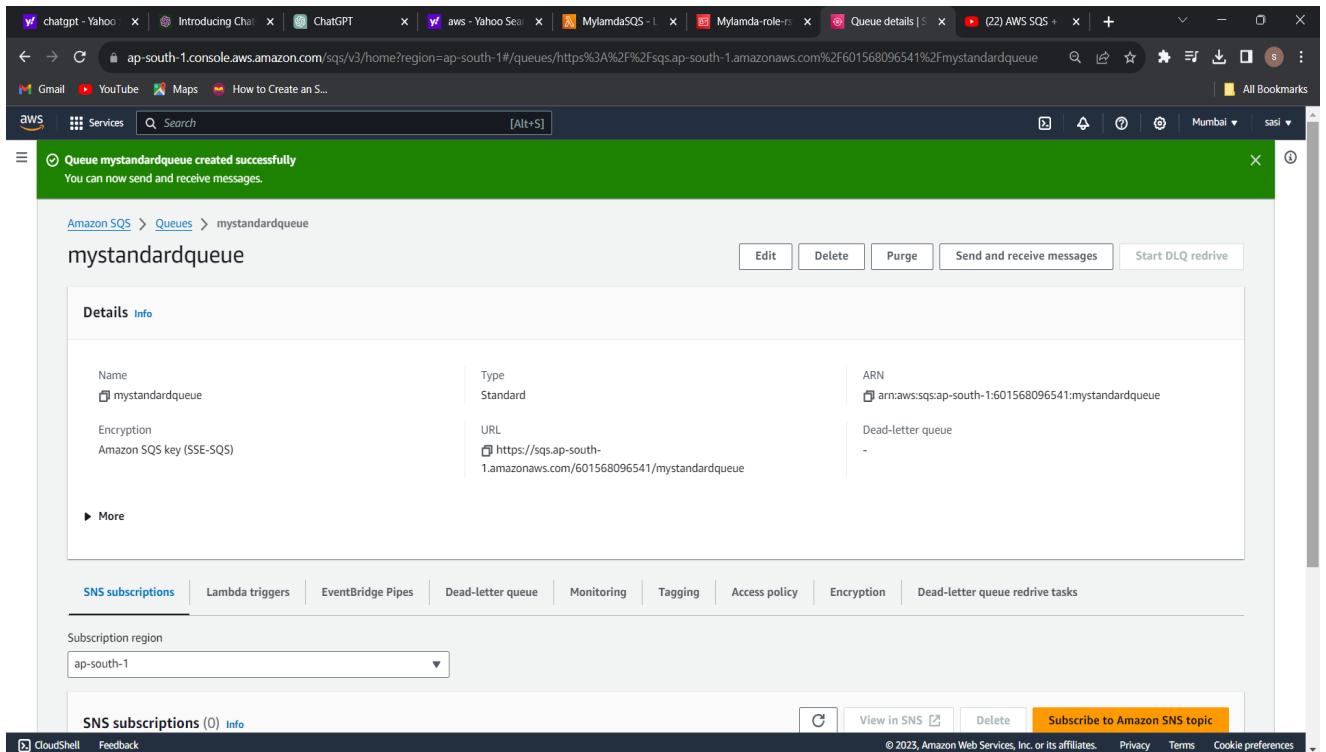
[Upload from](#)



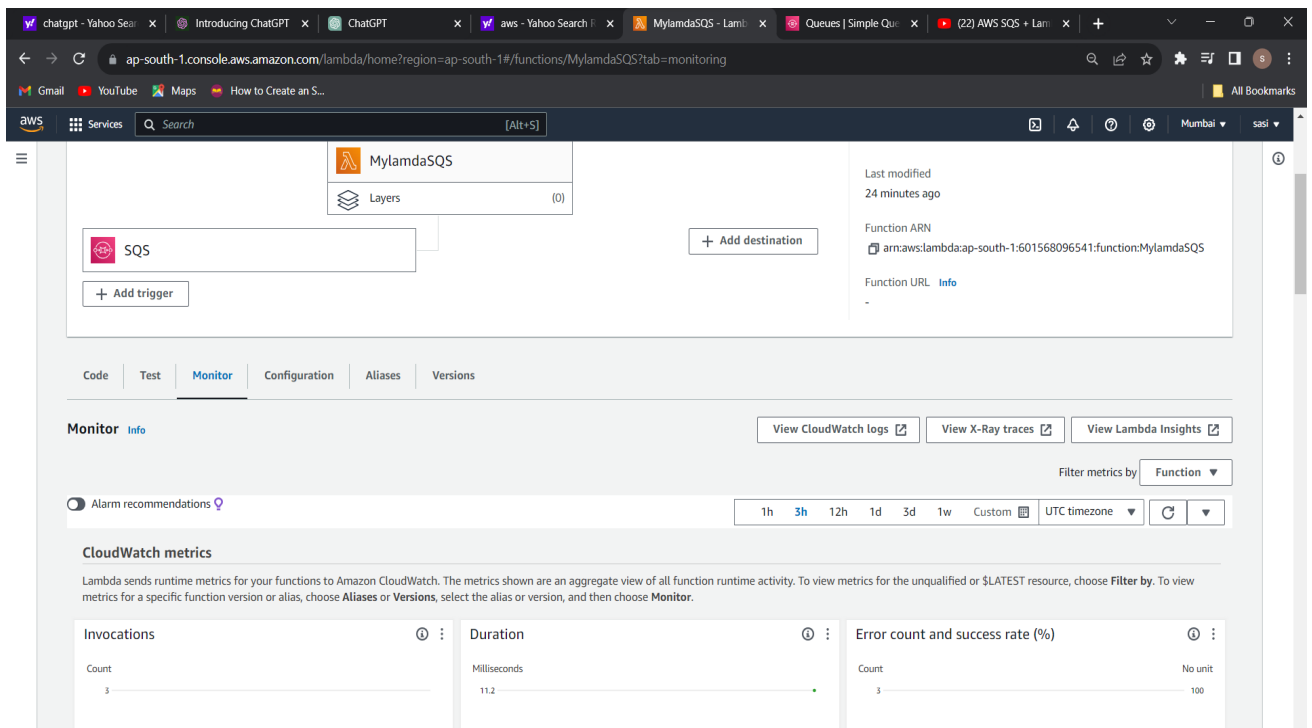
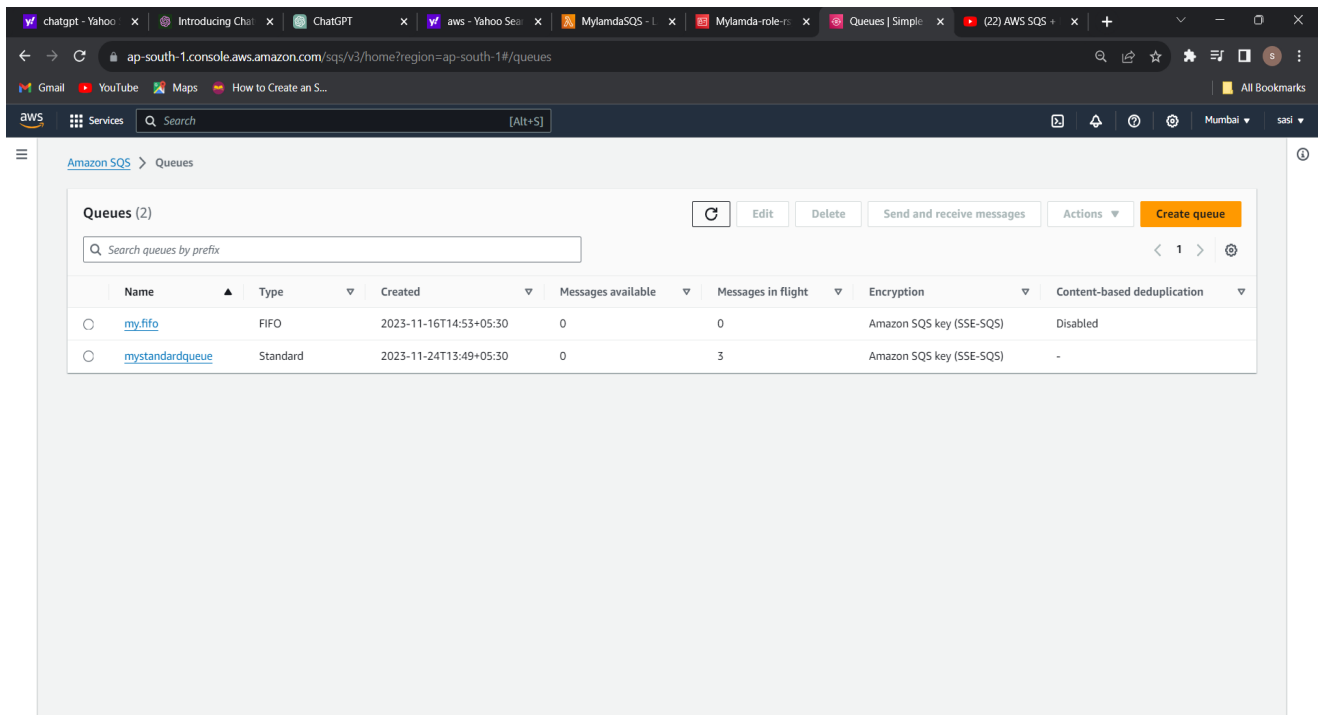
Create SQS



Create only standard



Click on send and receive messages.
Give message whatever you want



Monitor section click on view cloud watch logs.

Browser tabs: chatgpt - Yahoo, Introducing ChatGPT, ChatGPT, aws - Yahoo Search, MylamdaSQS - I, CloudWatch | ap, Queues | Simple, (22) AWS SQS +

Address bar: ap-south-1.console.aws.amazon.com/cloudwatch/home?region=ap-south-1#logsV2log-groups/log-group/%2Faws%2Flambda%2FMylamdaSQS

CloudWatch console: /aws/lambda/MylamdaSQS

Log group details:

- ARN: arn:aws:logs:ap-south-1:601568096541:log-group:/aws/lambda/MylamdaSQS:
- Creation time: 2 minutes ago
- Retention: Never expire
- Stored bytes: -
- Metric filters: 0
- Subscription filters: 0
- Contributor Insights rules: -
- KMS key ID: -
- Data protection: -
- Sensitive data count: -

Log streams (1):

Log stream	Last event time
2023/11/24/[!\$!ATEST]25625a97e465407aa975b6a3b3e3ed63	2023-11-24 14:04:30 (UTC+05:30)

Click on the file

You will get messages displayed what you have given