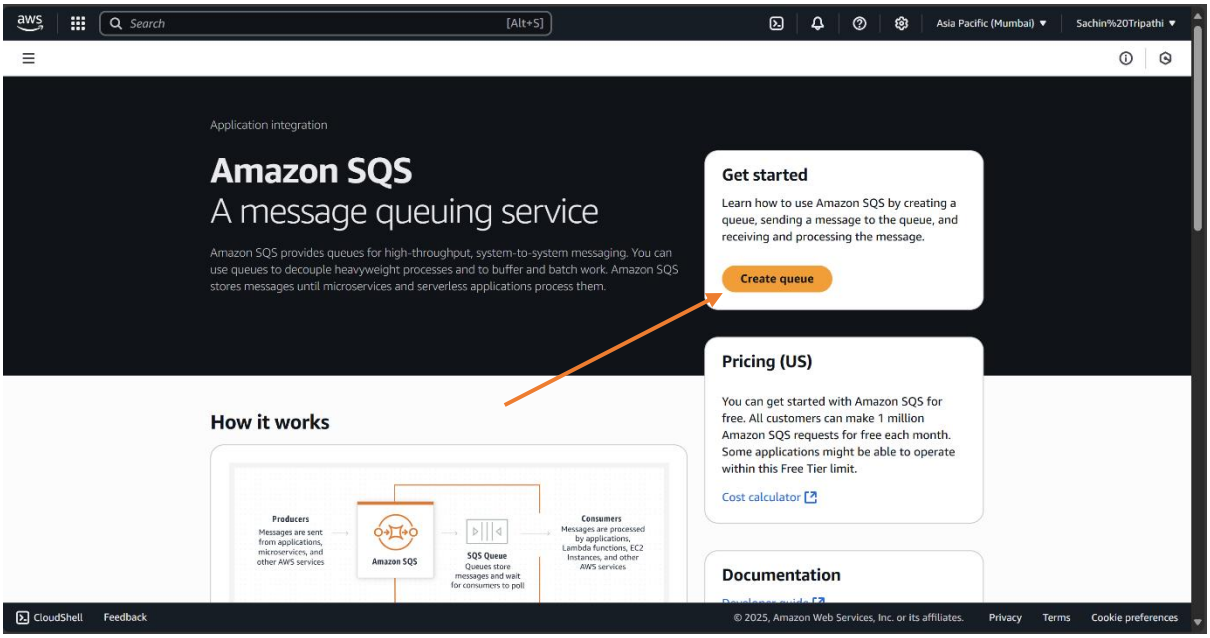
Simple Queue Service (SQS)

Amazon Simple Queue Service (SQS) is a cloud-based service that lets different parts of an application send, store, and receive messages easily. It helps apps work smoothly by using queues to manage messages between systems. If one part is busy, SQS holds the message until it's ready. This makes the app more reliable and flexible. It supports both Standard queues (for high speed) and FIFO queues (for exact order). SQS is fully managed, so you don’t need to worry about servers or scaling.

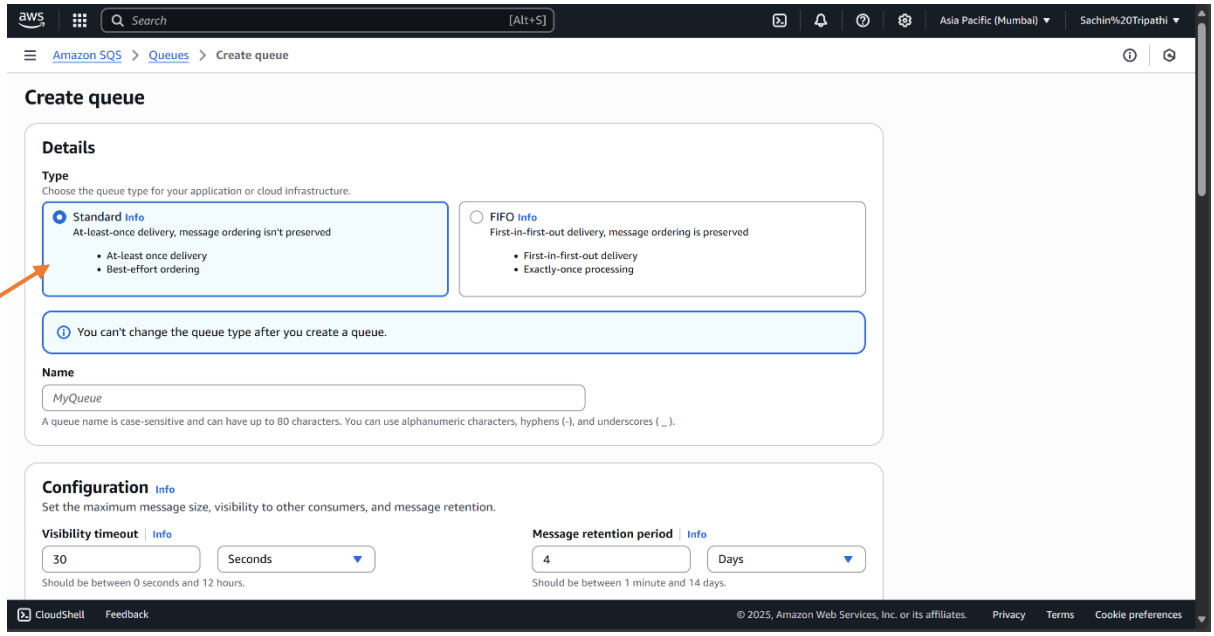
How to create SQS-

Step1:-

- Goto Search bar. Search SQS. Click on SQS.
- Click on “create Queue”.

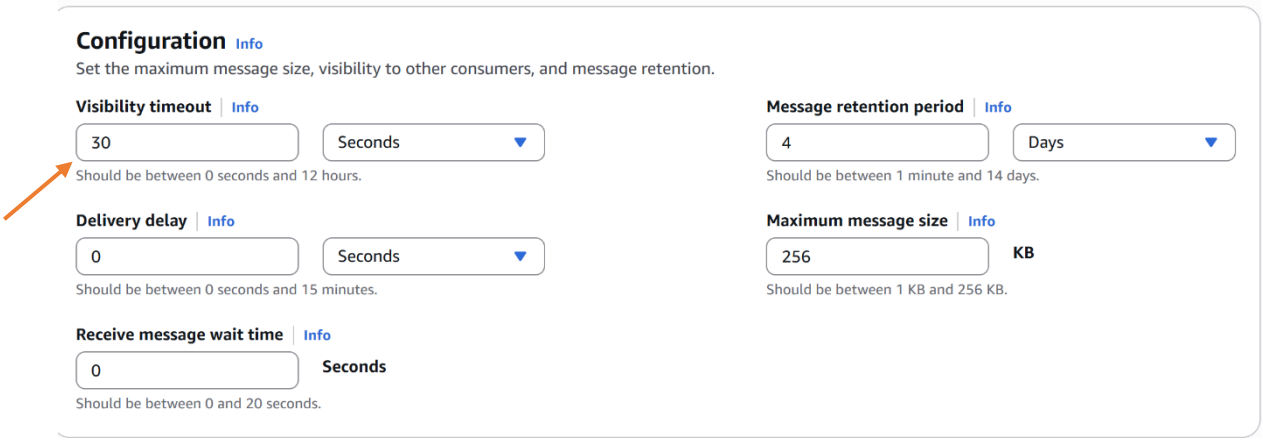


- In “Type” select “Standard”.

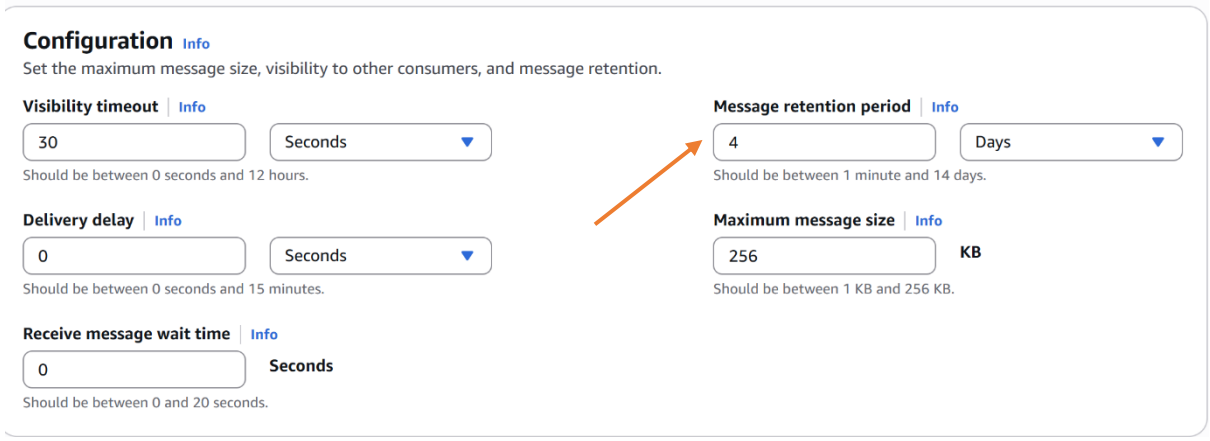


- Enter the “name” of queue.

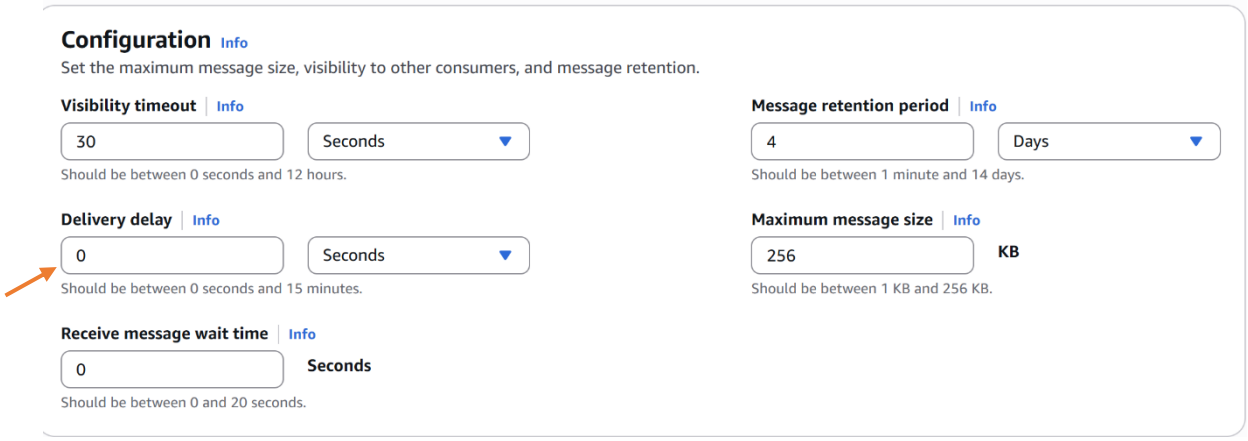
- In “configuration” there are many option.
- Visibility timeout -The time a message stays hidden after being picked up by a consumer, preventing other consumers from receiving it. Set according to need.Ex:- 30second.



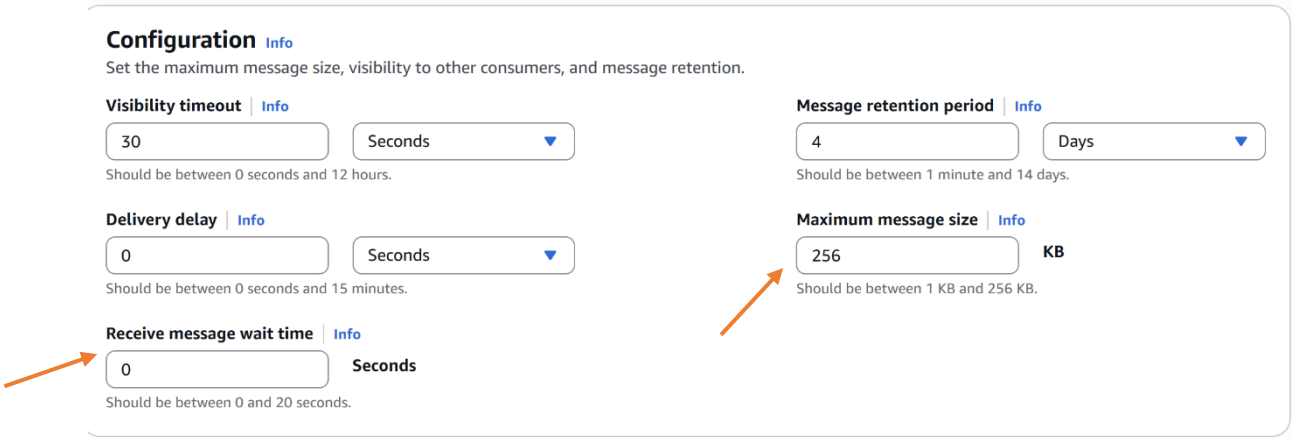
- Message retention period – The amount of time messages are stored in the queue if not deleted, before they are automatically removed.
- Set according to your need. Ex:- 4 days.



- Delivery delay – The delay before a new message becomes available to consumers after being sent to the queue.
- Set by your need. Ex:- 0second.

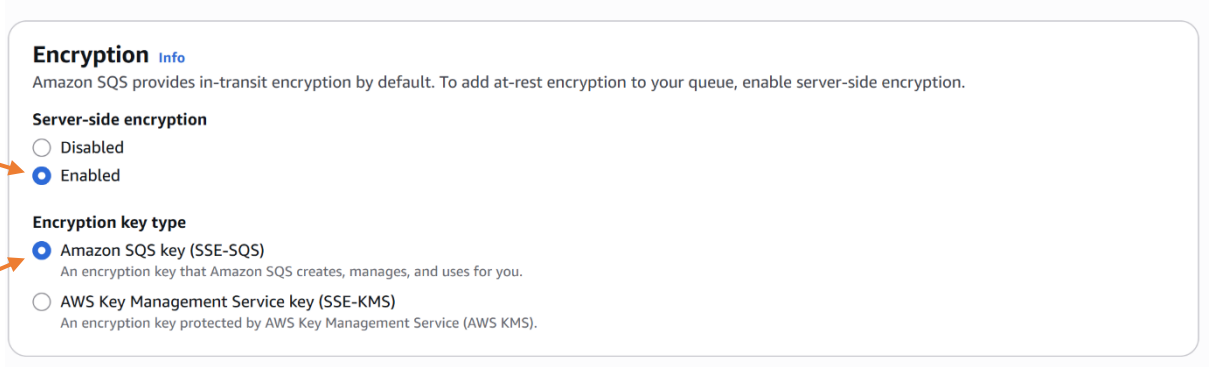


- Receive message wait time – The time a receive request waits for a message to arrive before returning (used in long polling).
- Set by your need. Ex:- 0second.
- Set “maximum message size”. Ex:-256kb

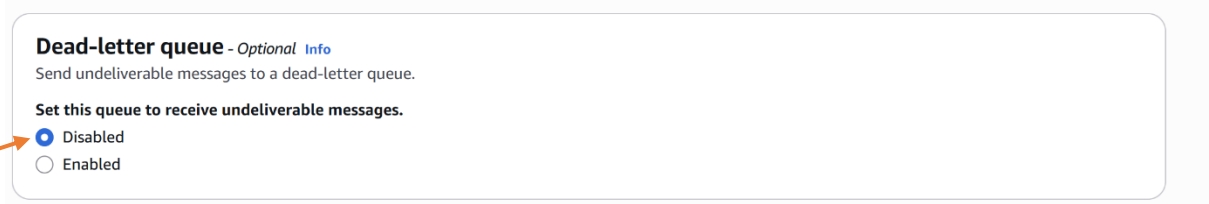


Step2:-

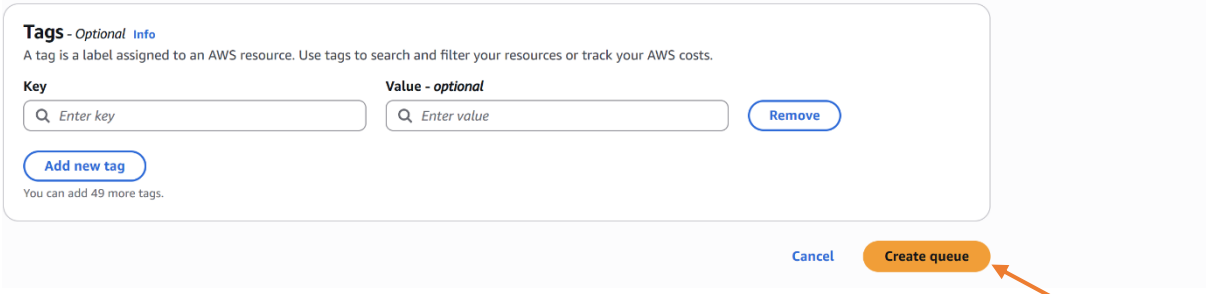
- “Server side encryption” is enabled.
- Set “Encryption key type” “amazon SQS key (SSE-SQS)”.



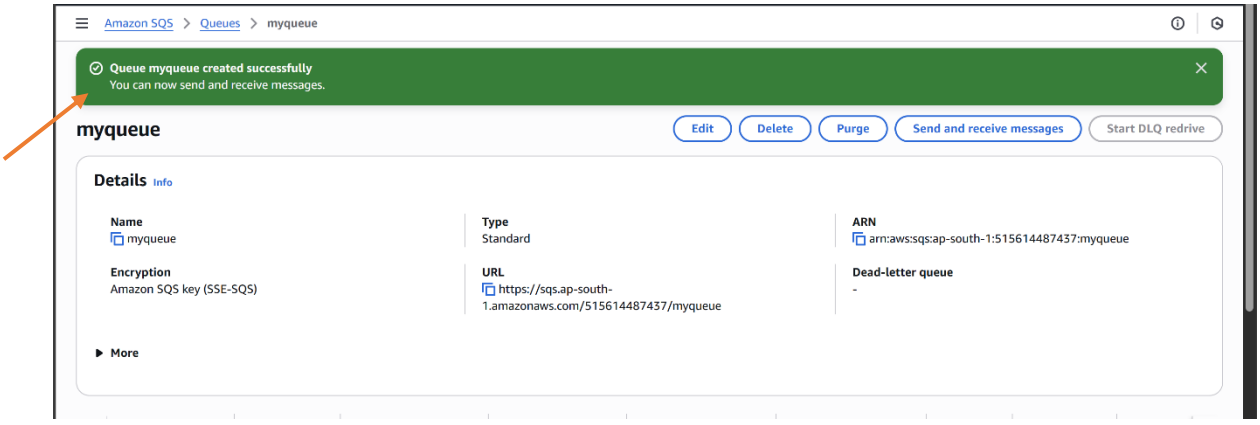
- “Dead-letter queue” is “disabled”.



- Click on “Create queue”.

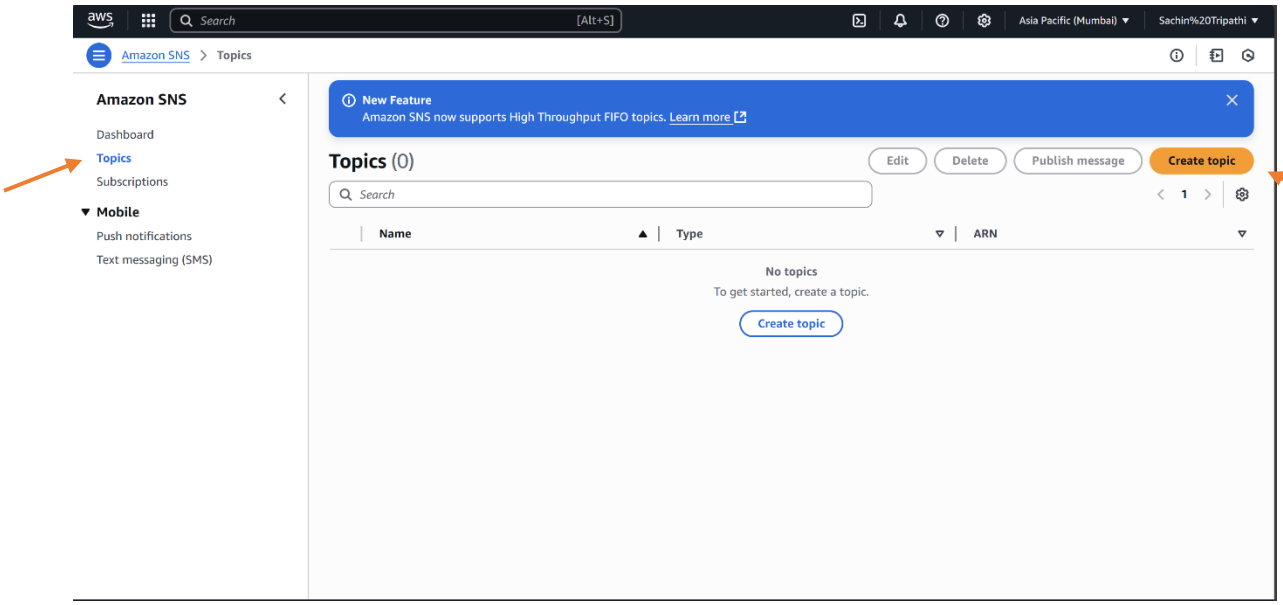


- Queue is created.

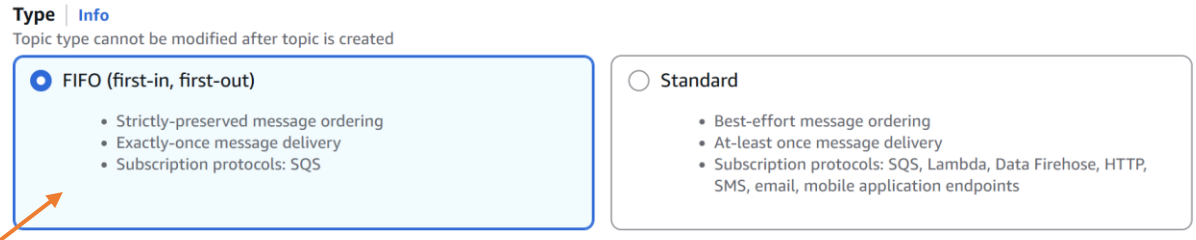


Step3:-

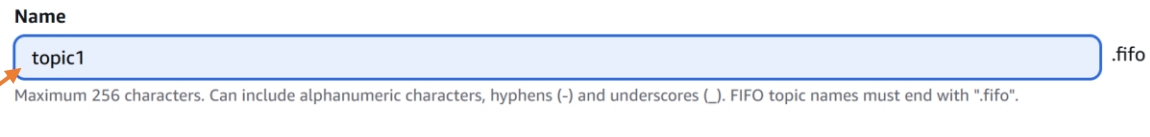
- Open “duplicate tab”.
- Search “SNS”.
- Goto “Topics”.
- Click on “create topics”.



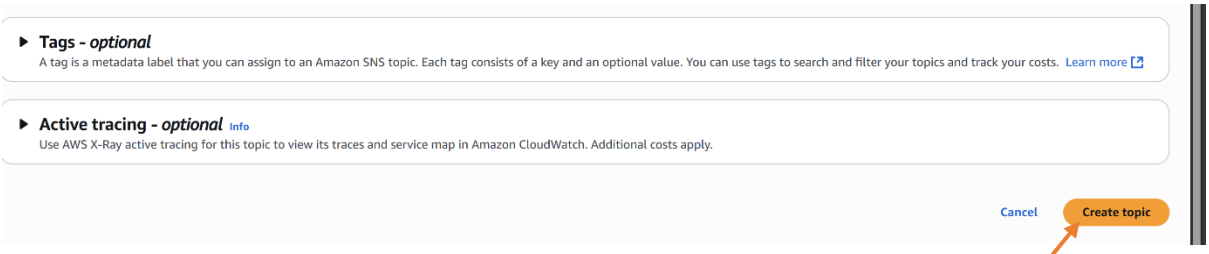
- In “Type” select FIFO (First-in,first-out).



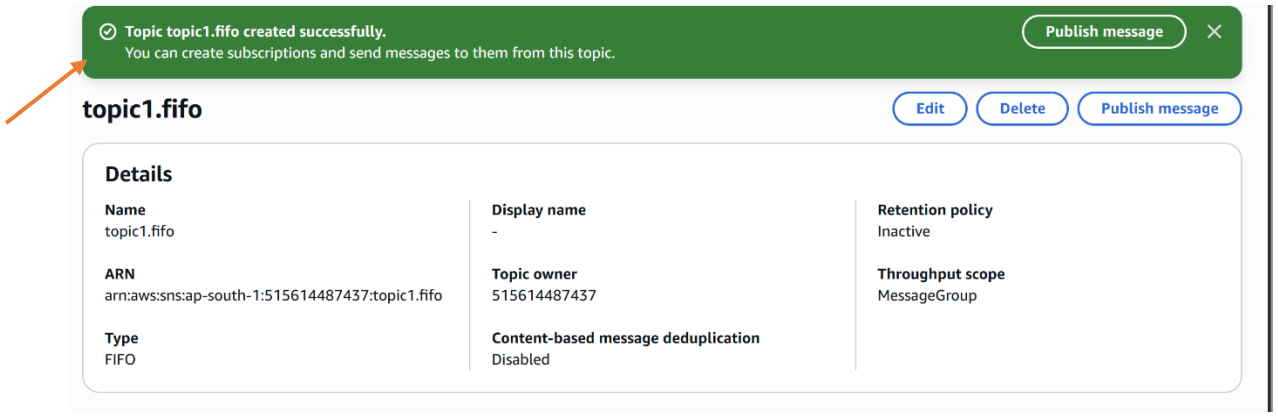
- Enter the “name” of topic.



- Click on “create topic”.

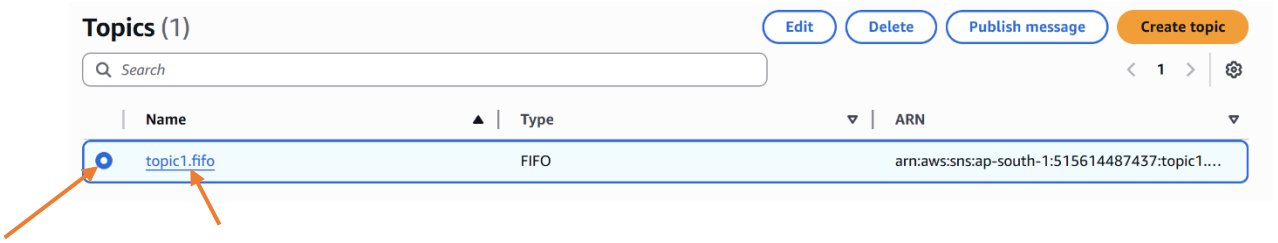


- Topic is created successfully.

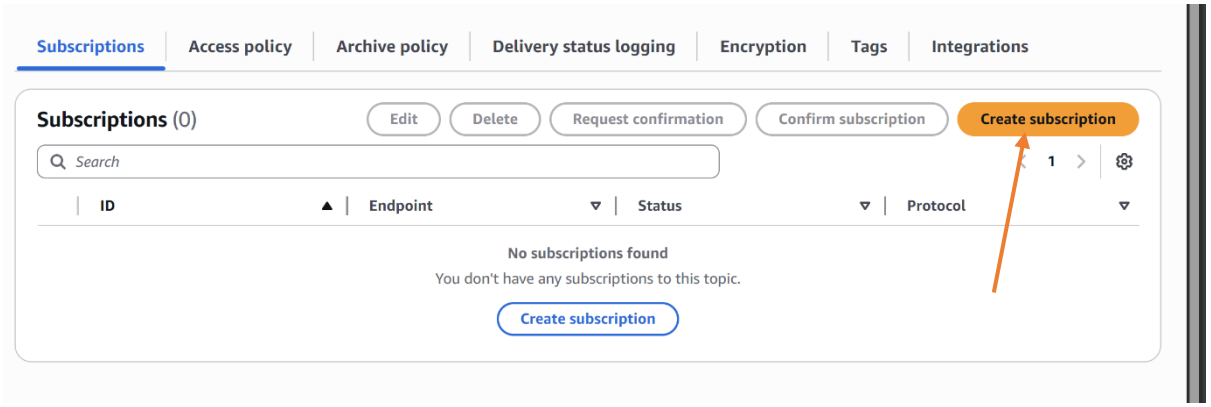


Step4:-

- Select topic.
- Click on the topic name.

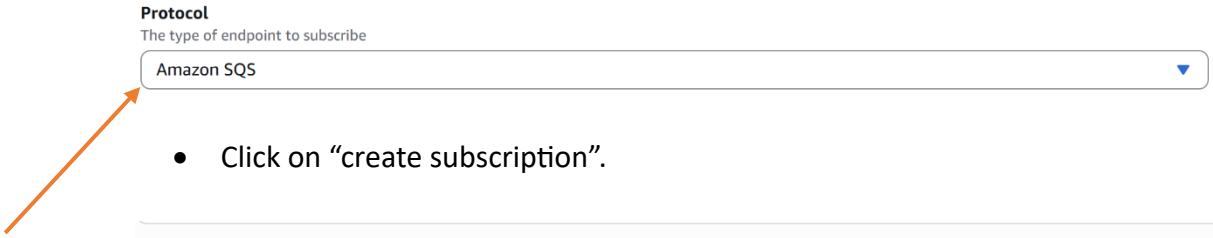


- Click on “create subscription”.

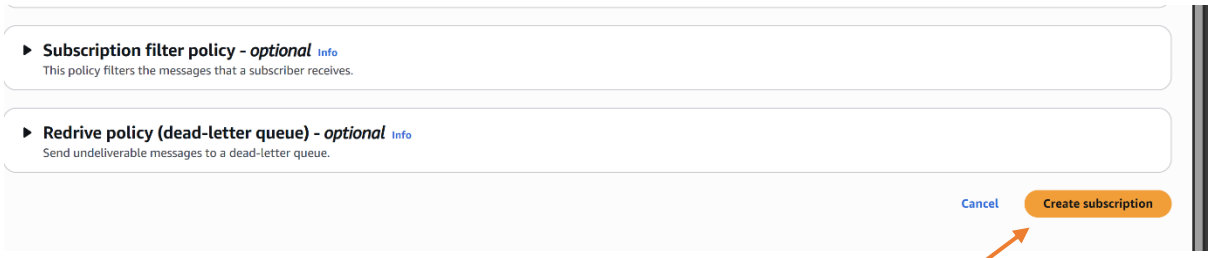


- Select “topic ARN”.

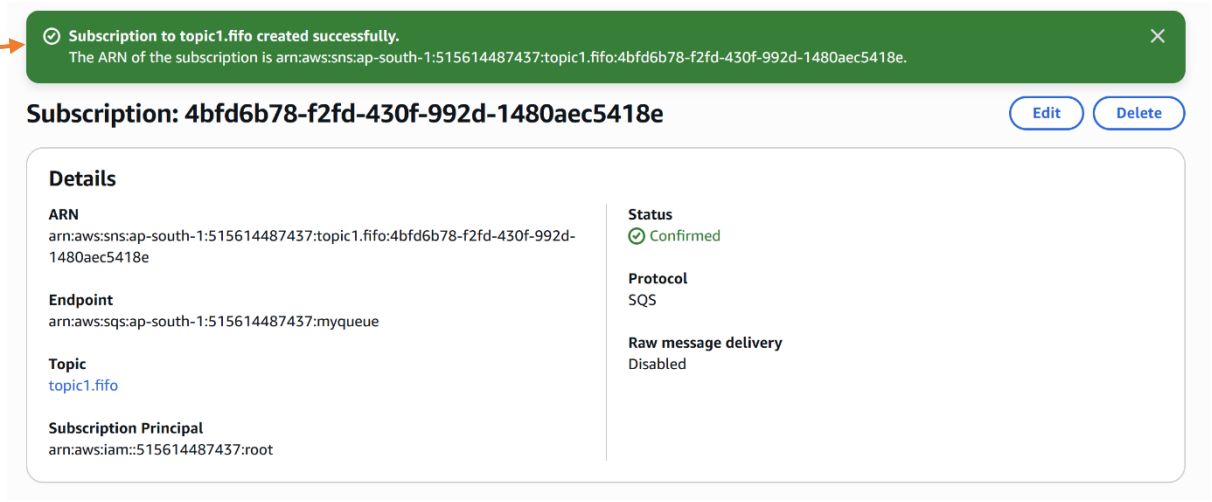
- In “Protocol” select “Amazon SQS”.



- Click on “create subscription”.

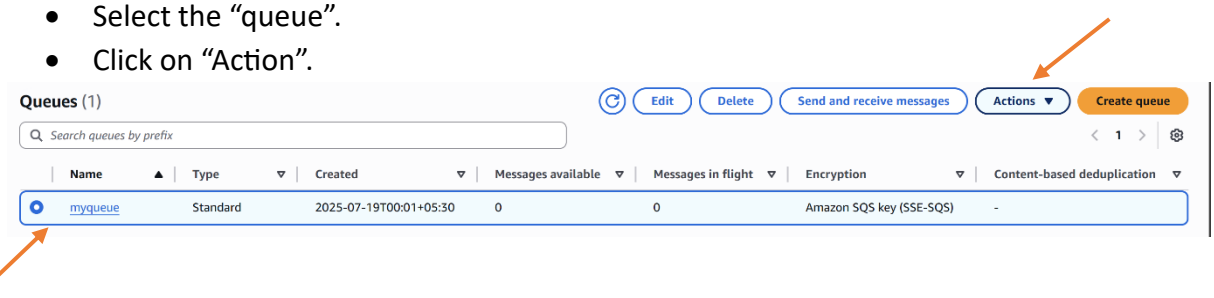


- Subscription is created.

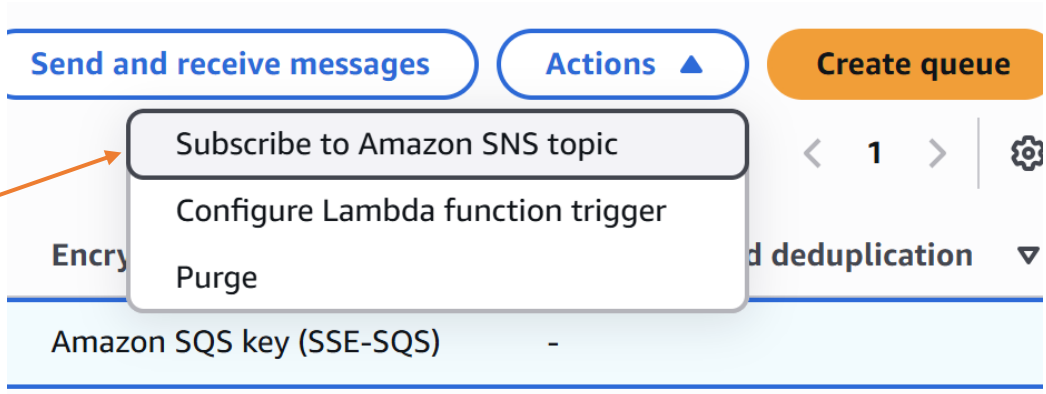


Step4:-

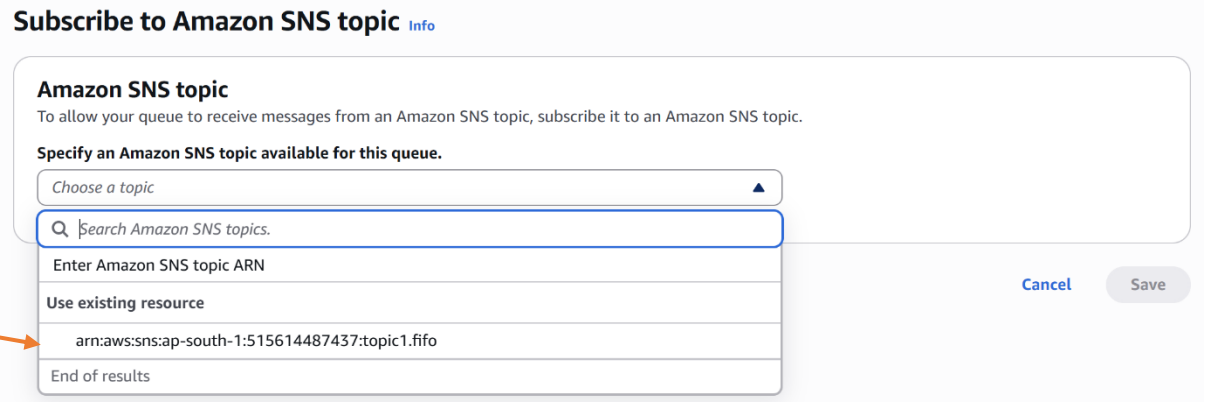
- Change the tab and back to “SQS”.
- Select the “queue”.
- Click on “Action”.



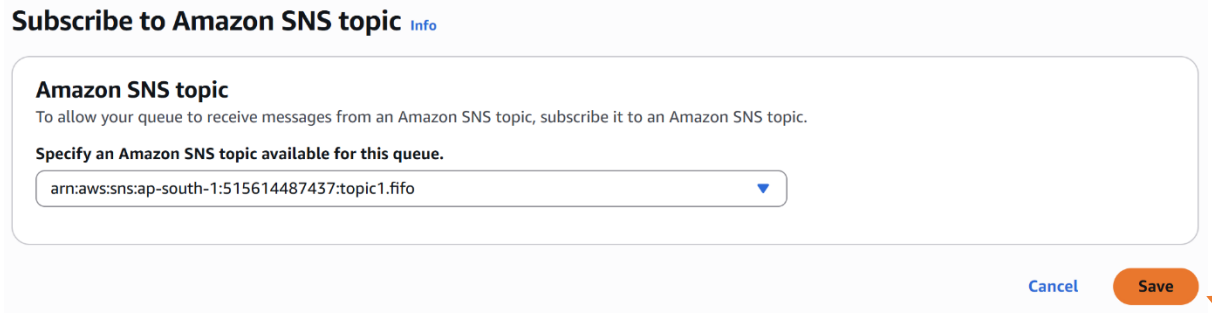
- Select “Subscribe to Amazon SNS topic”.



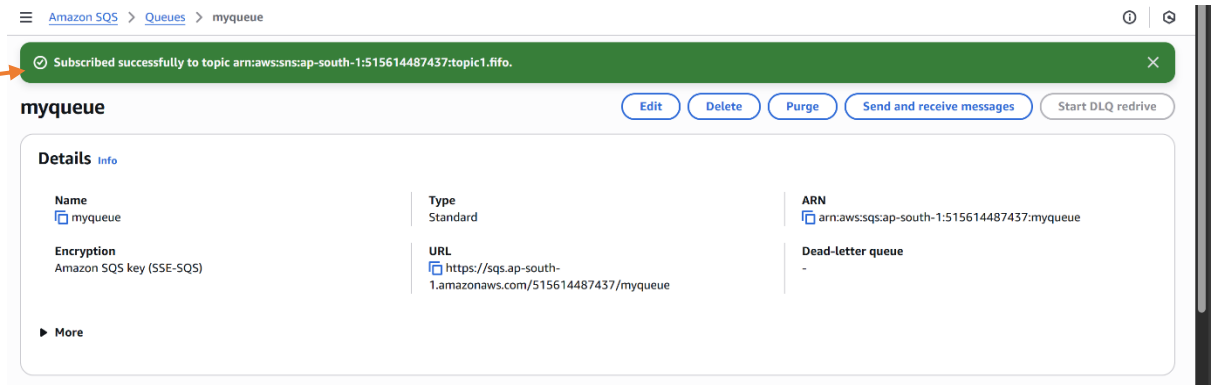
- In “Amazon SNS topic” “choose a topic” like use existing resource.



- Click on “Save”.

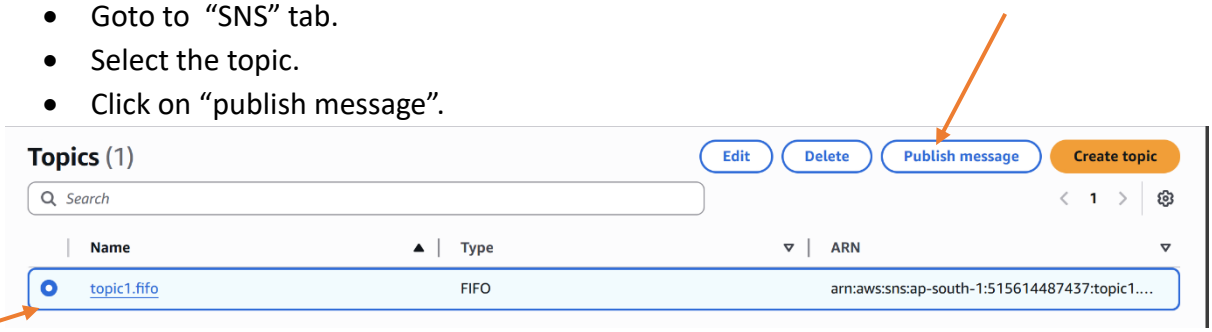


- Subscribed successfully to topic.

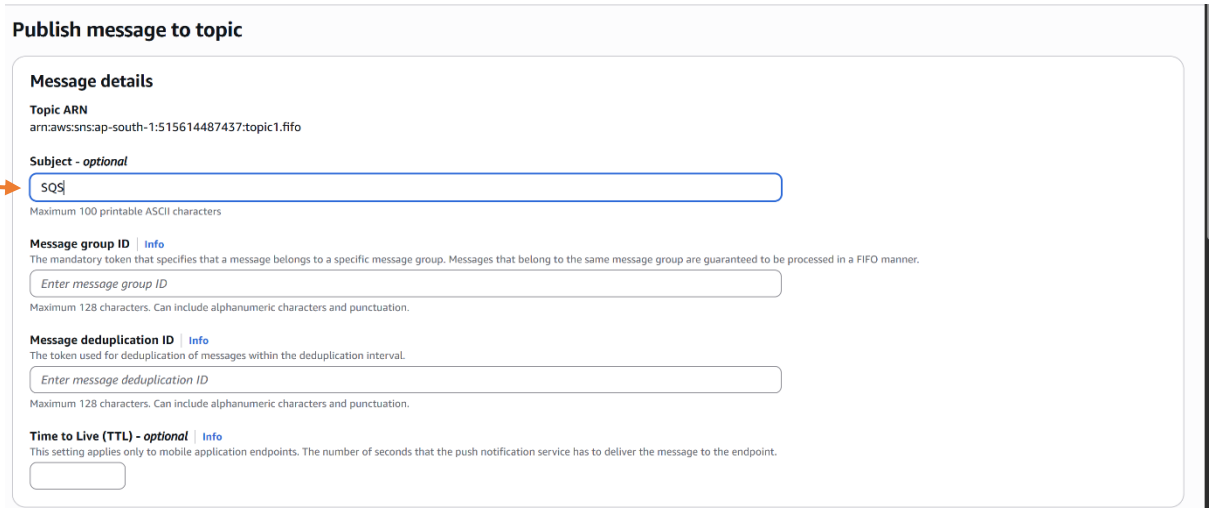


Step5:-

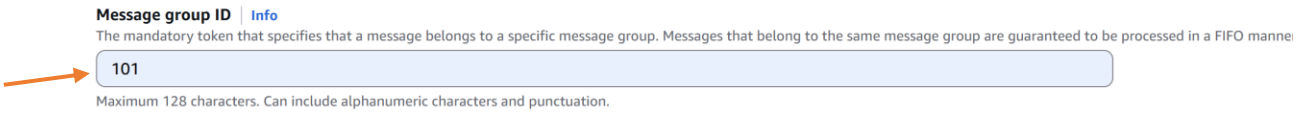
- Goto to “SNS” tab.
- Select the topic.
- Click on “publish message”.



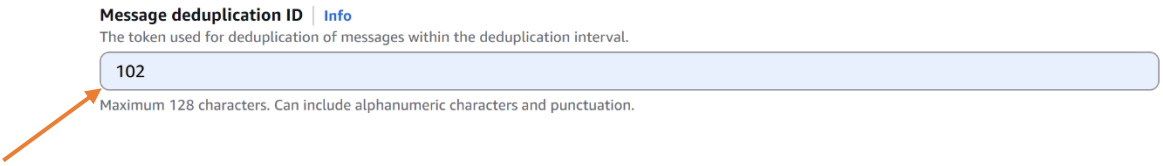
- “Subject” name is optional.



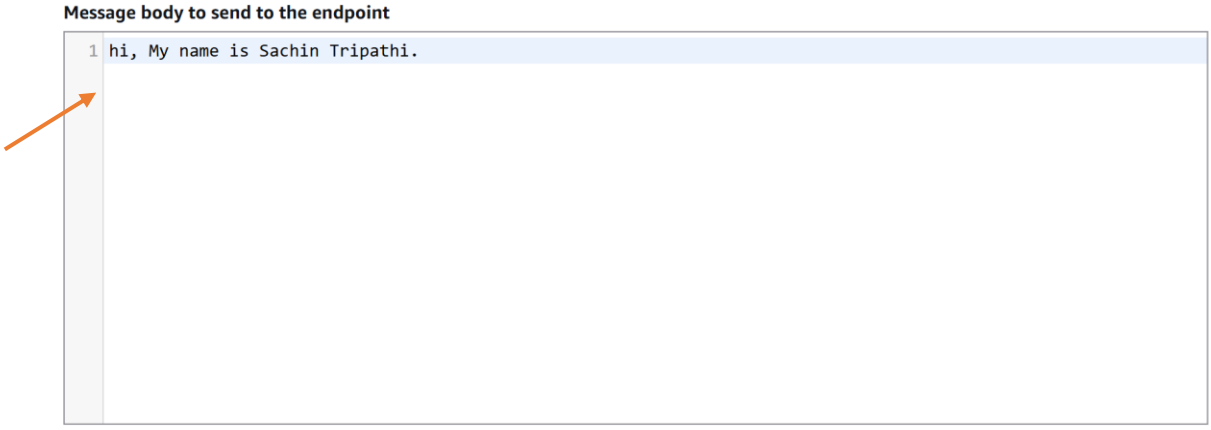
- Enter “message ID”. Ex:- 101.



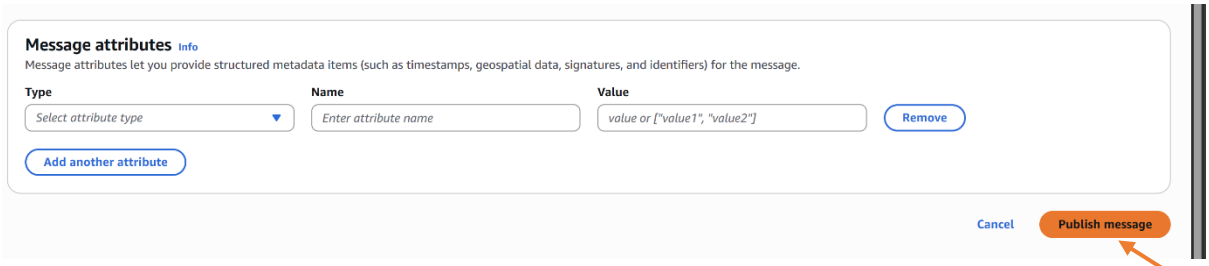
- Enter “message deduplication ID”. Ex:- 102.



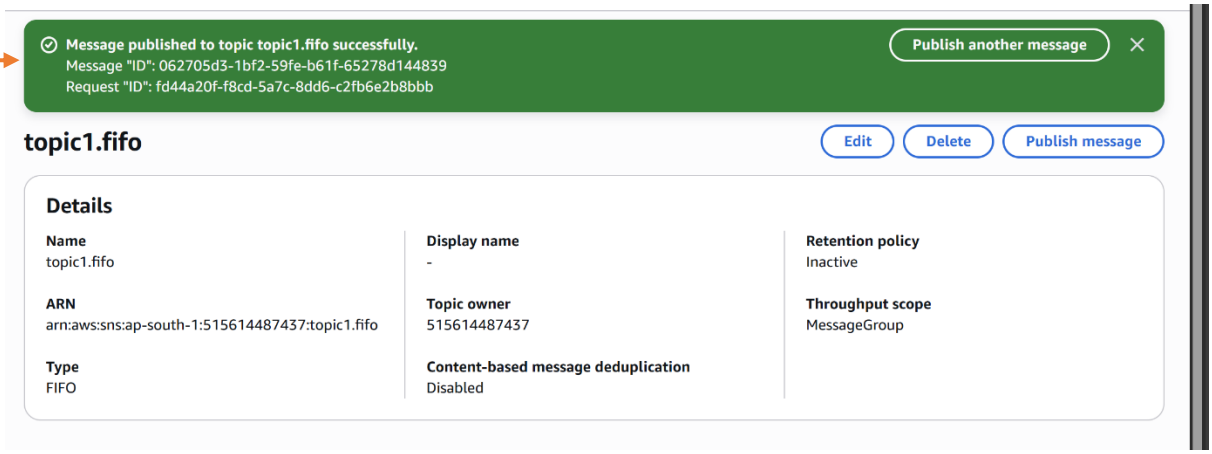
- Write the message in the “message body to send to the endpoint”.



- Click on “Publish message”.

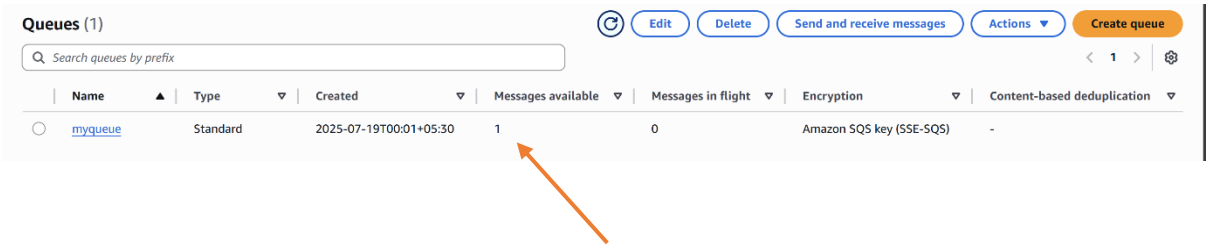


- Message is published successfully.

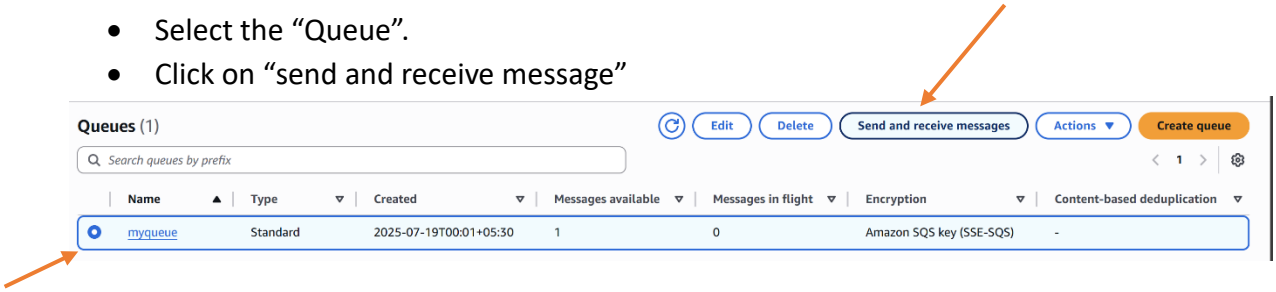


Step5:-

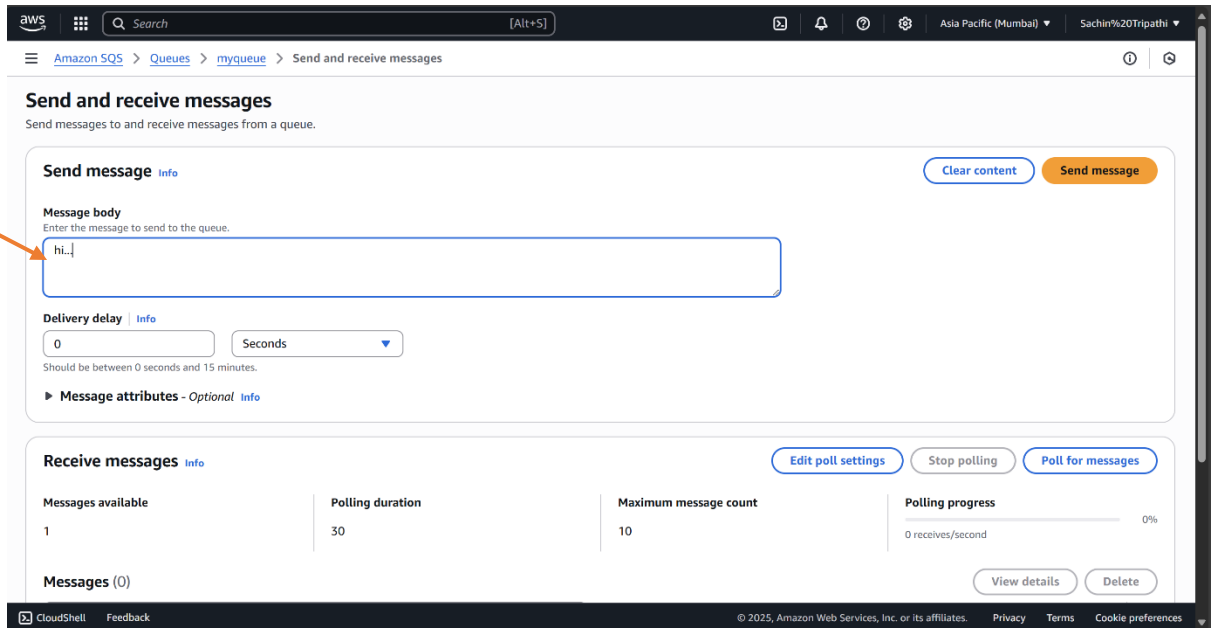
- Goto to “SQS” tab.
- Here, now “message available” is 1.



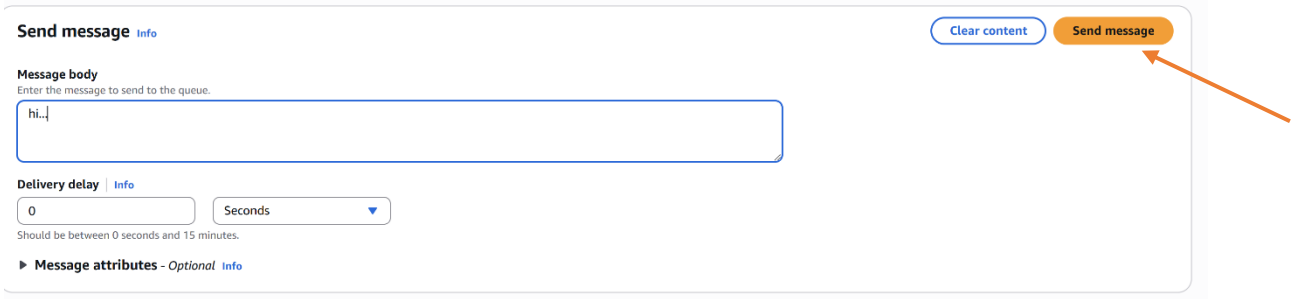
- Select the “Queue”.
- Click on “send and receive message”



- Write the message in “message body”.

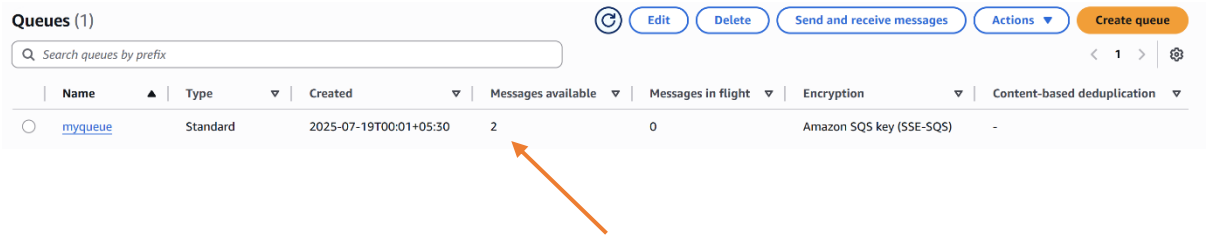


- Click on “send message”.



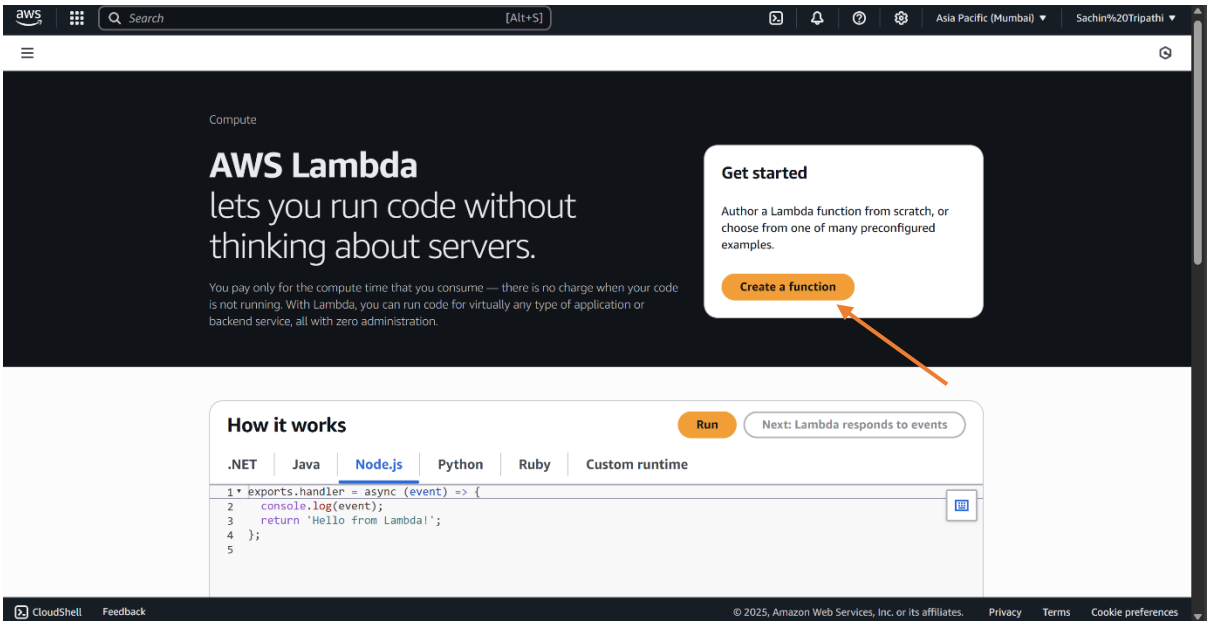
- Message has been sent is ready to received.

- Here, now “message available” is 2.

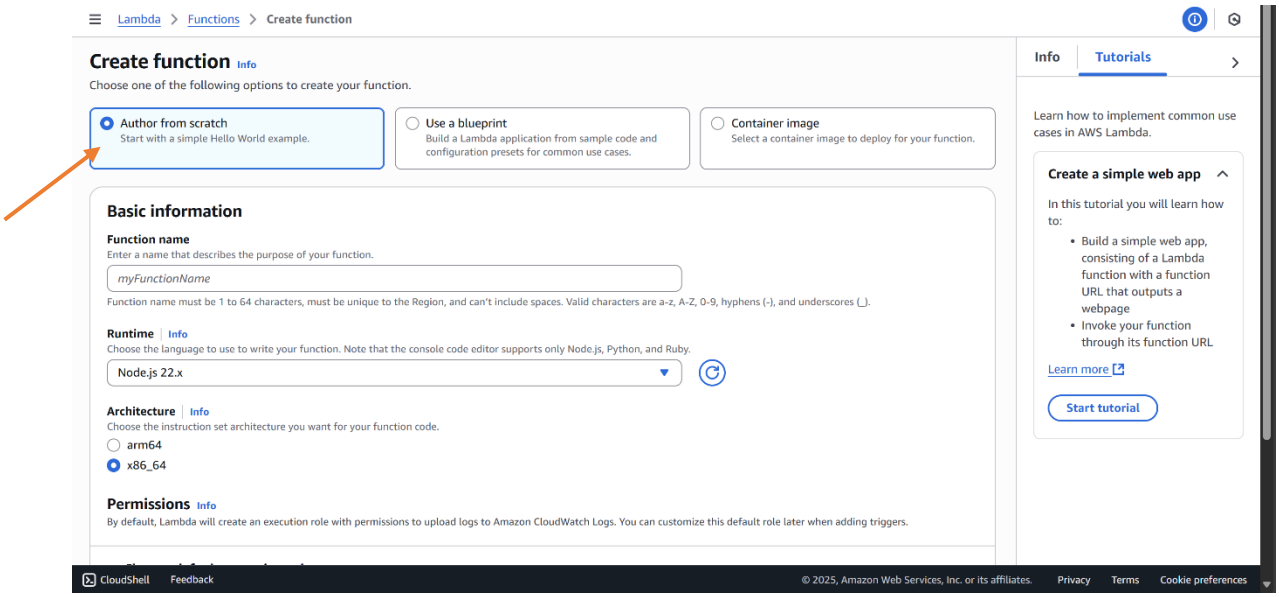


Step6:-

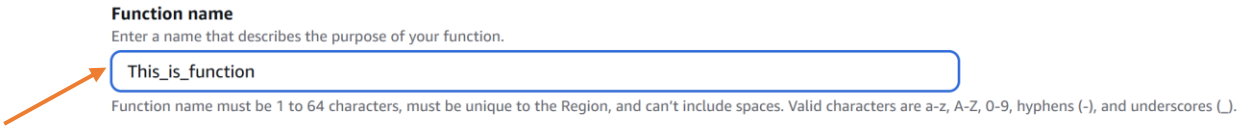
- Create a duplicate tab.
- Search “lambda”.
- Click on “create a function”.



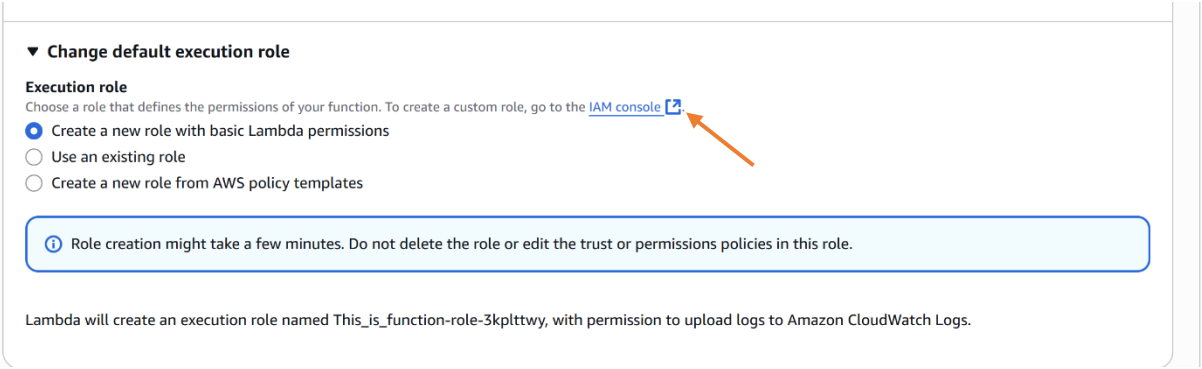
- Select “Author from scratch”.



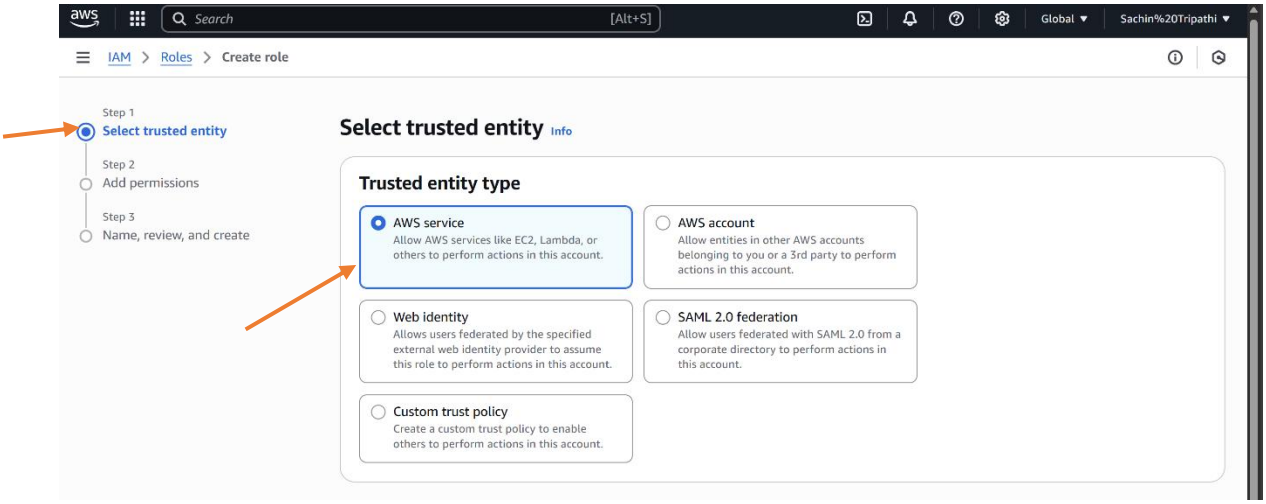
- Write the “function name”. Ex:- This_is_function.



- Click on “IAM console”.

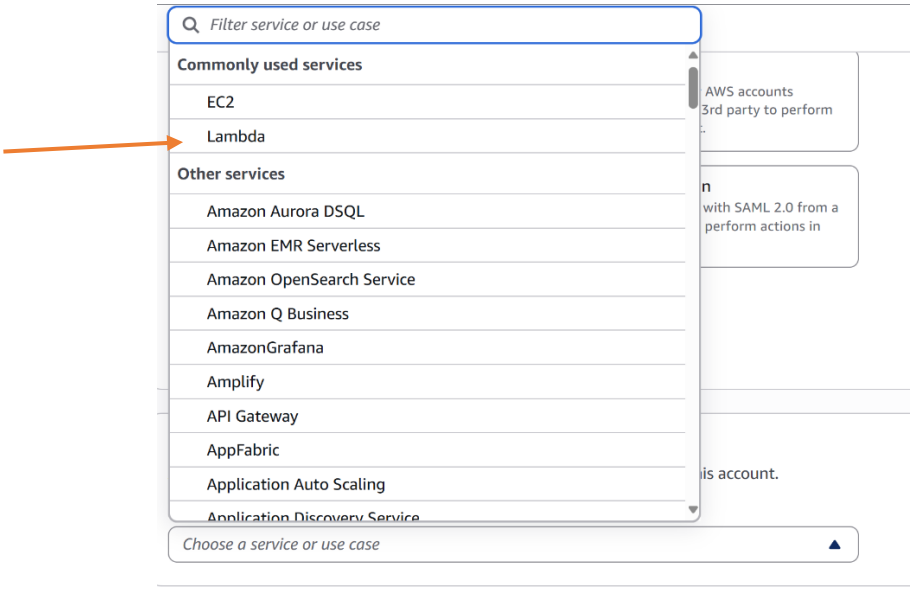


- In “Select trusted entity”, select “Trusted entity type” “AWS services”.

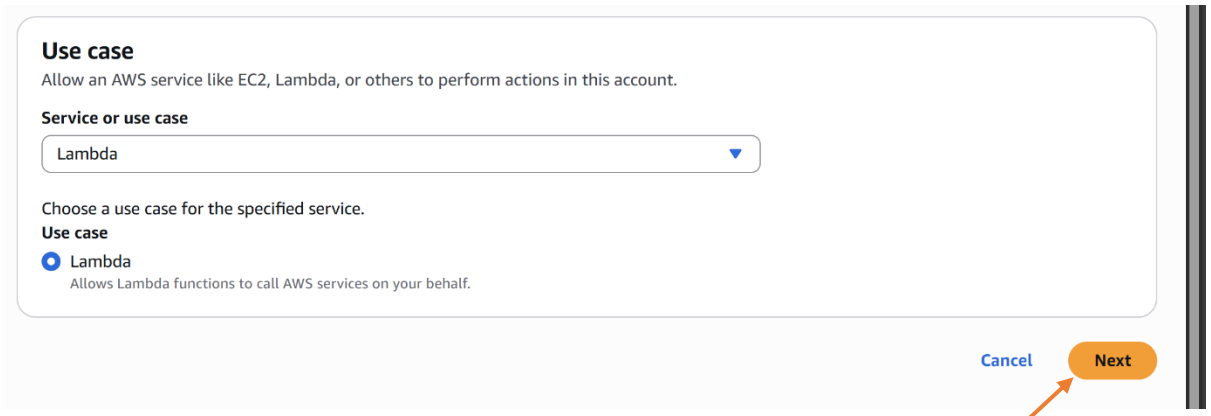


Step7:-

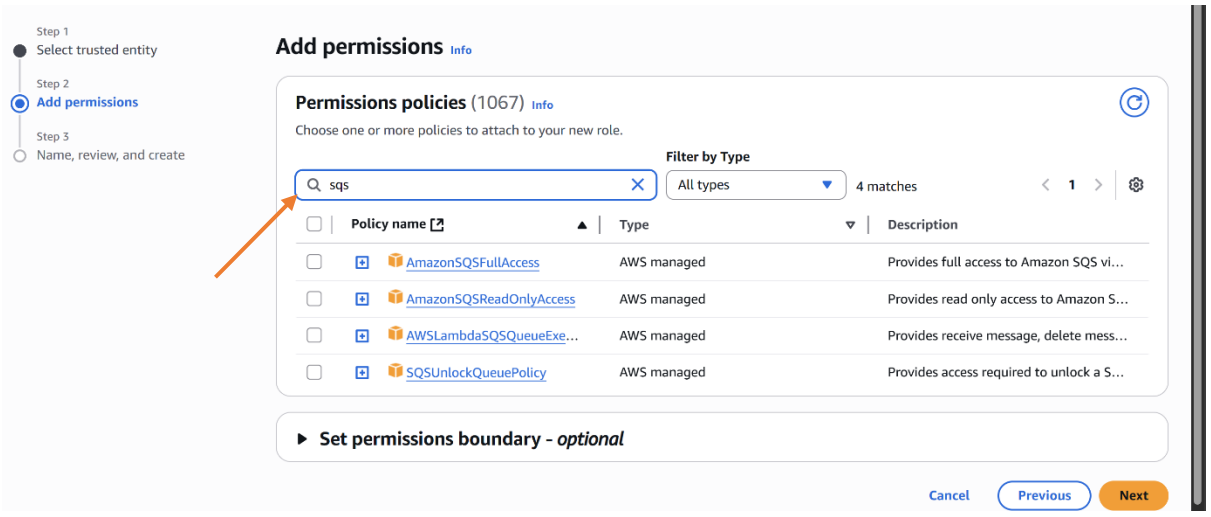
- Select “Lambda” in “Use case”.



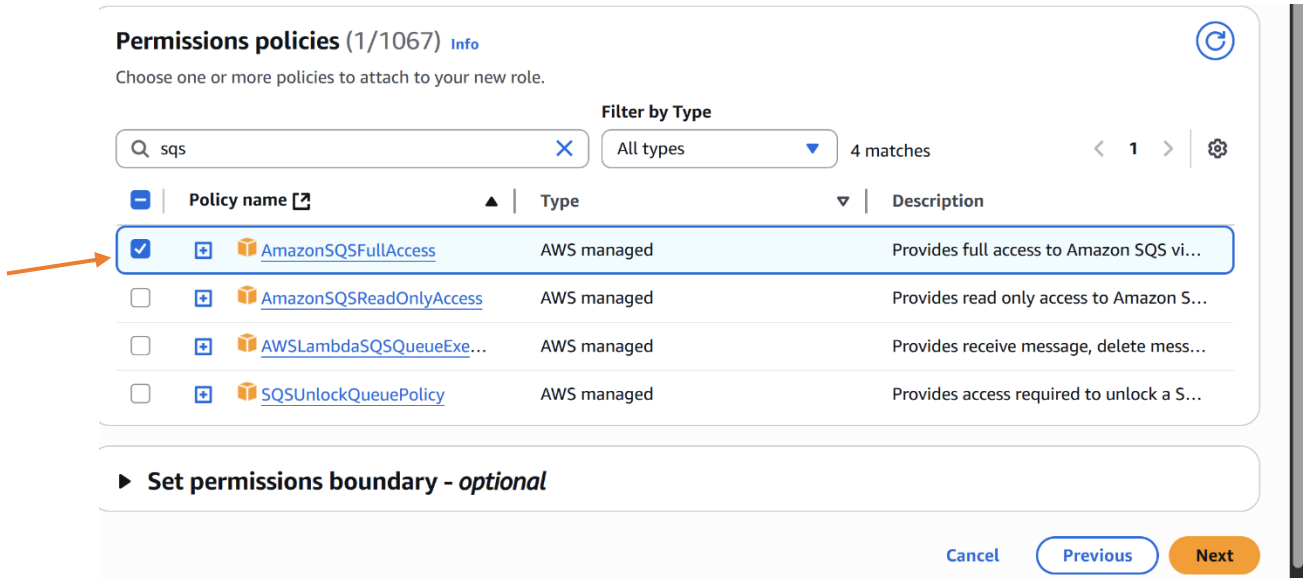
- Click on “next”.



- In “Add permission” , search “SQS” in “permission policy”.

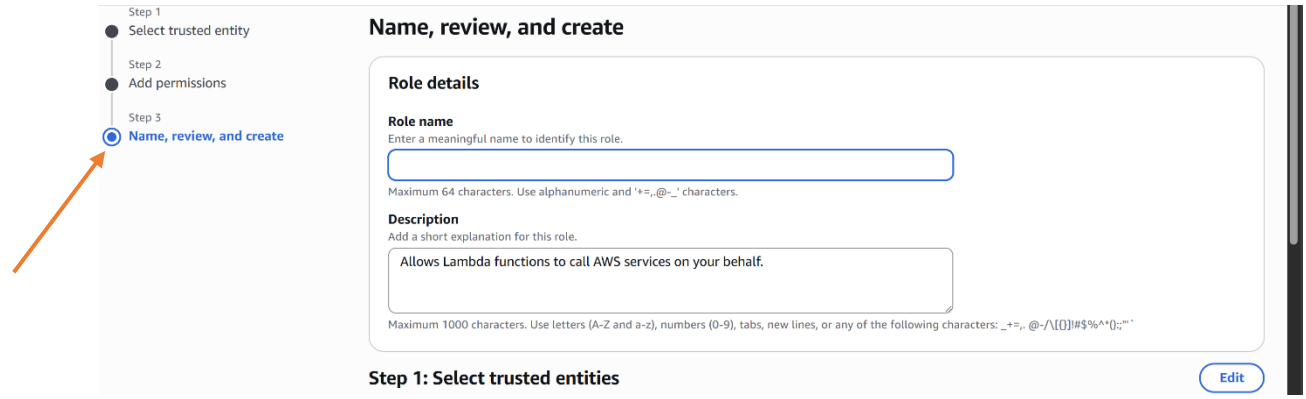


- Select “AmazonSQSFullAccess”.

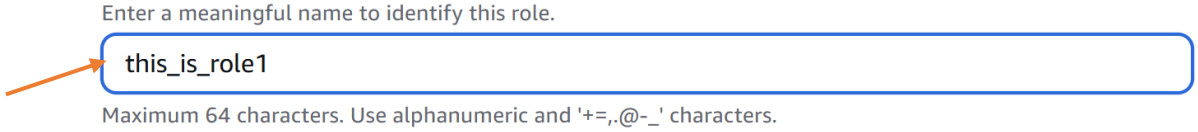


Step8:-

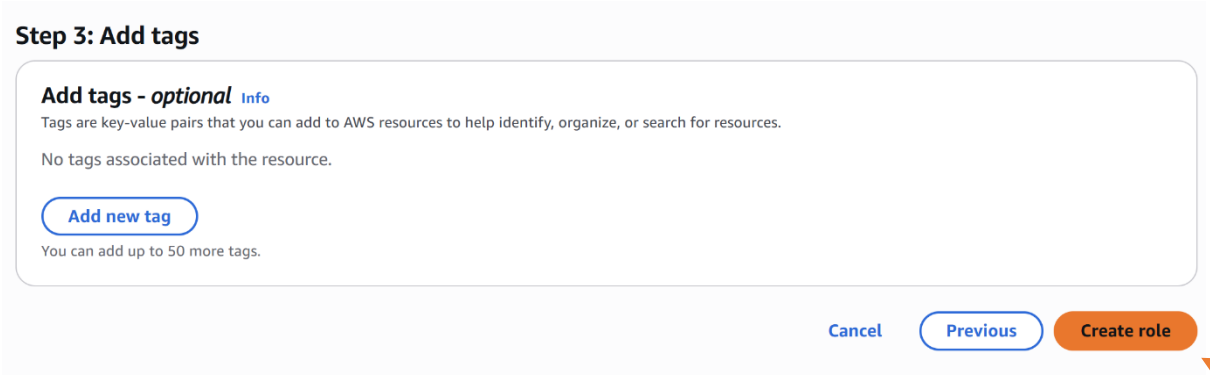
- In “Name, review, and create”.



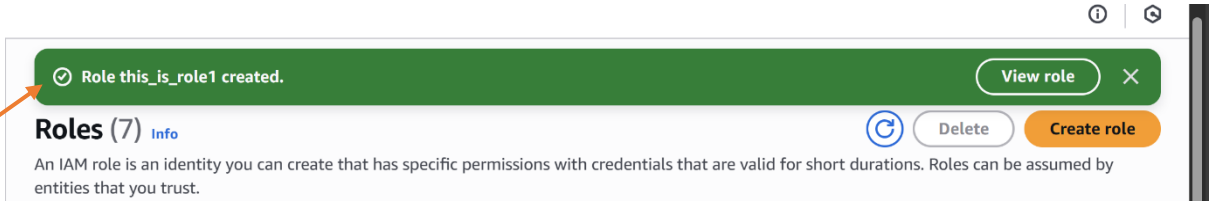
- Enter the “Role name” Ex:-this_is_role1.



- Click on “create Role”.

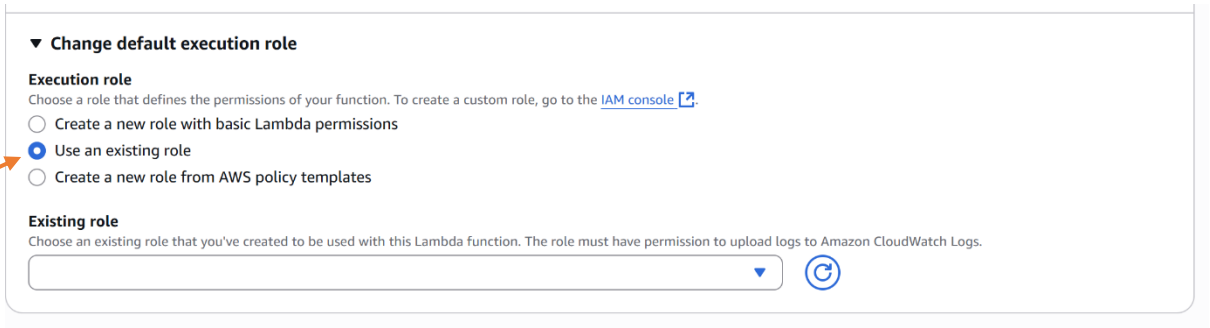


- Role is created.

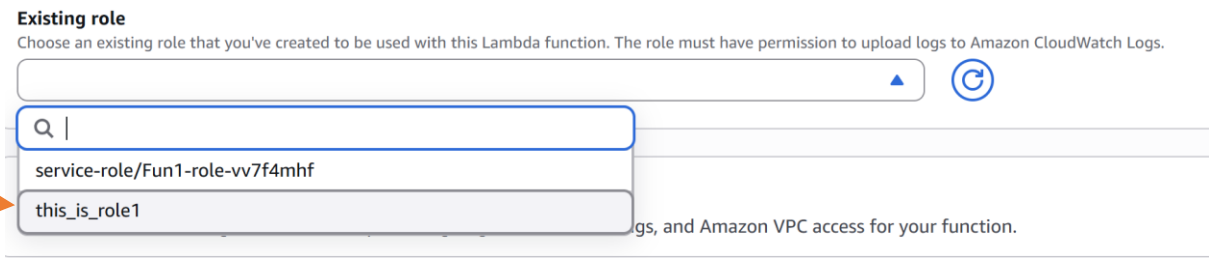


Step9:-

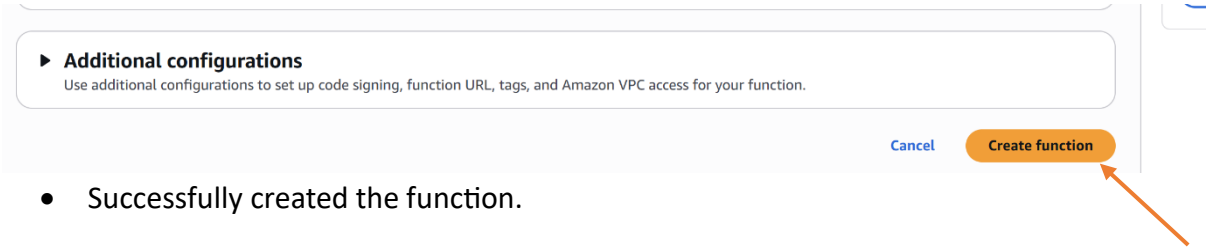
- Back to the SQS tab.
- Select the “use an existing role”.



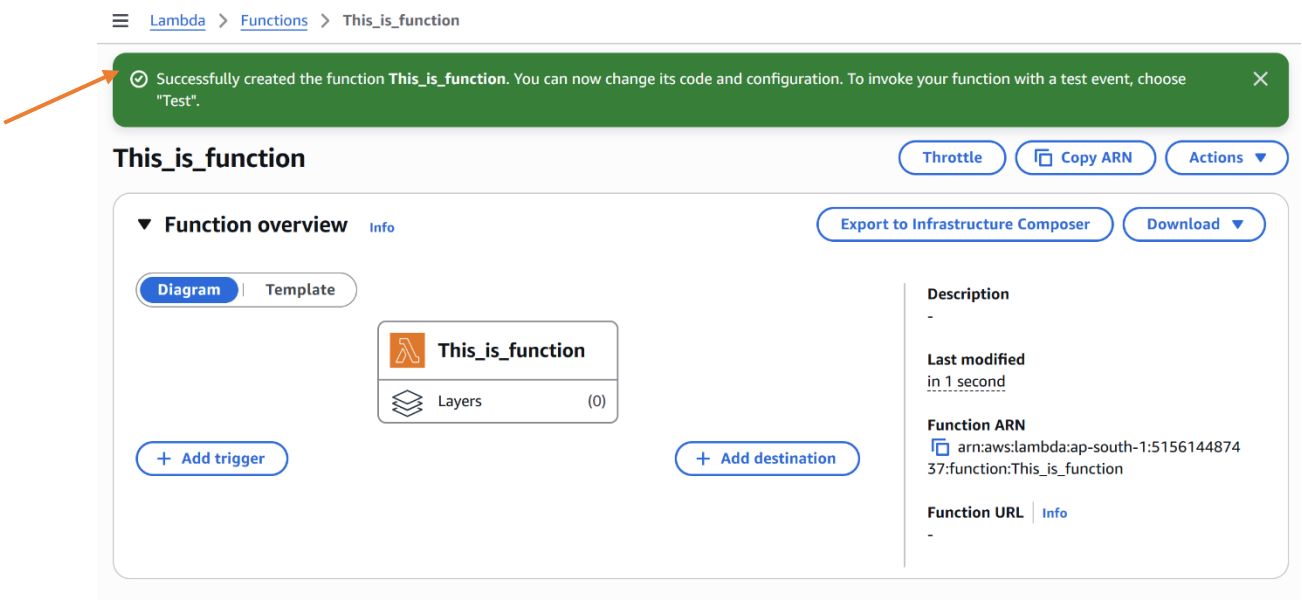
- In “Existing role” select the role which is “created”. Ex:- this_is_role1.



- Click on “create function”.

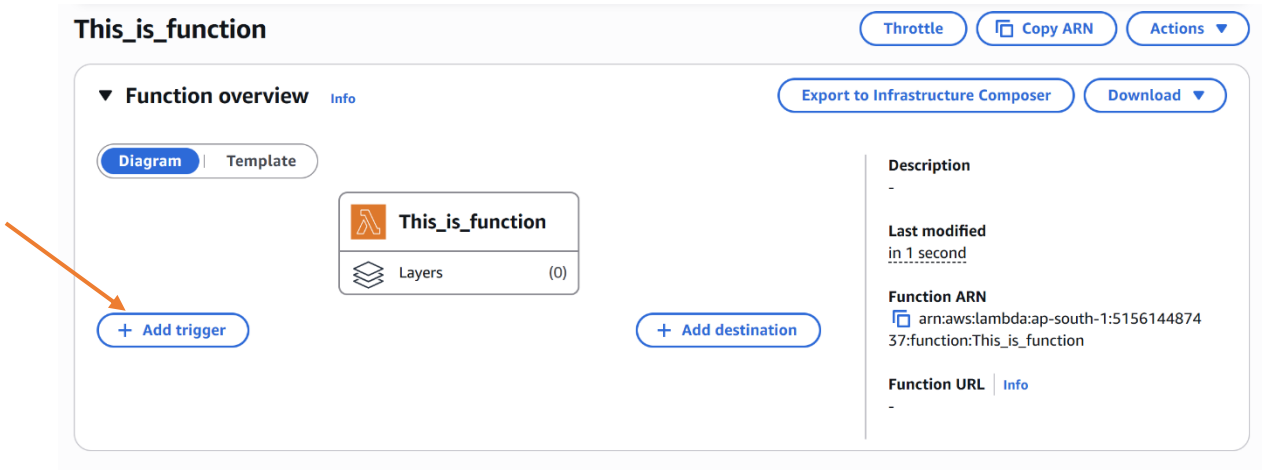


- Successfully created the function.

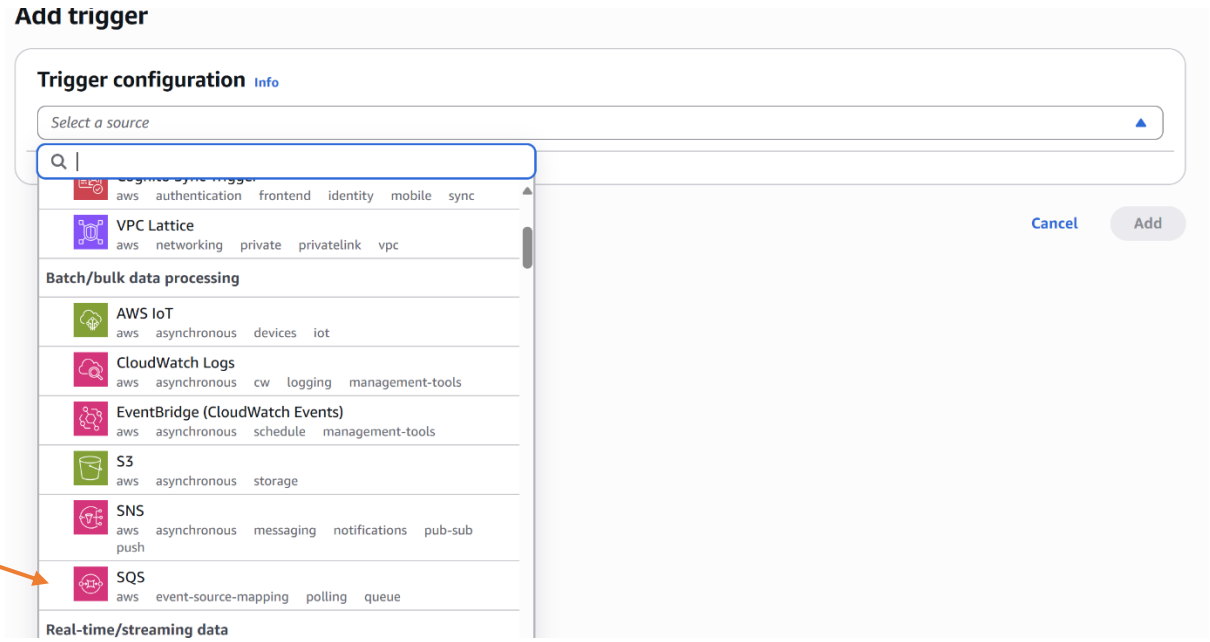


Step10:-

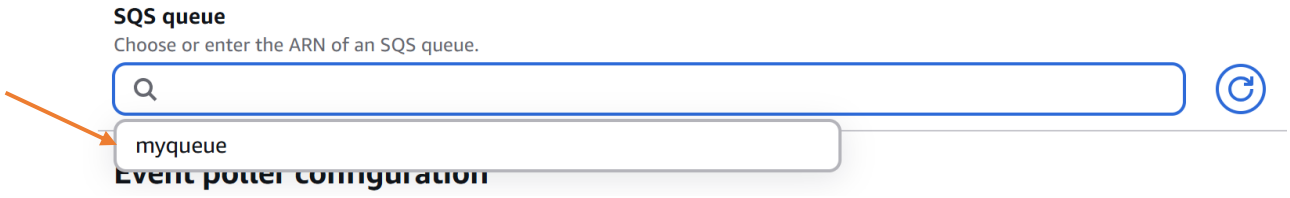
- Click on “Add trigger”.



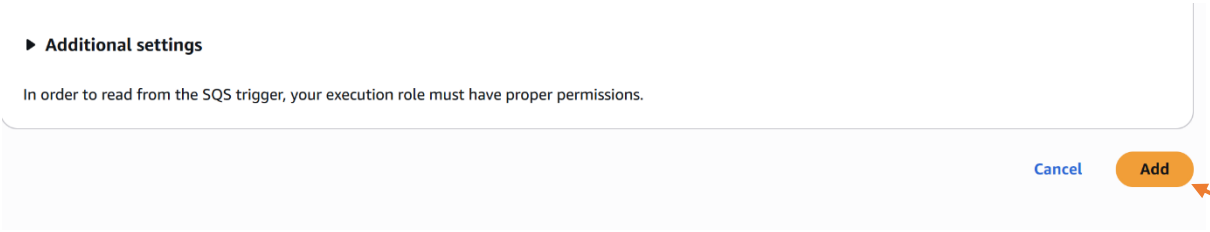
- Search and select “SQS”.



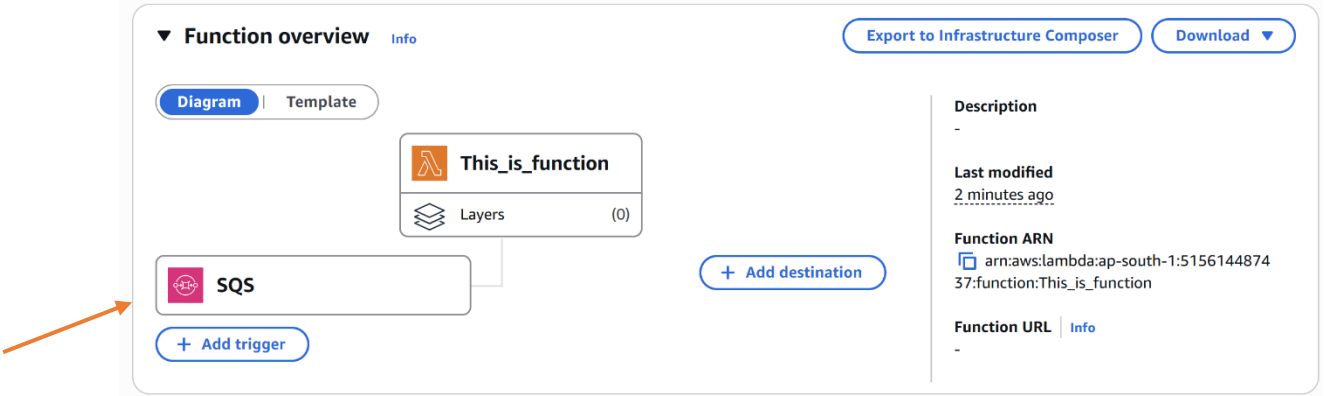
- In “SQS queue” select “myqueue”.



- Click on “Add” button.

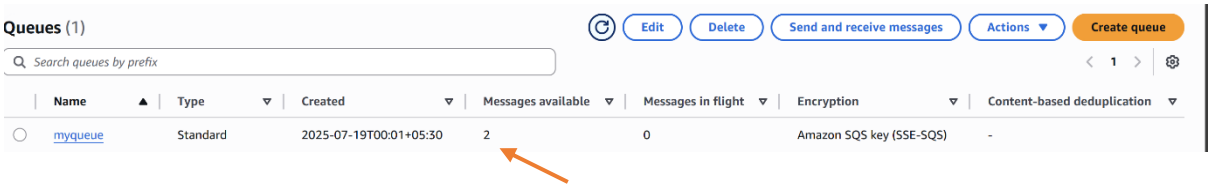


- SQS is added.

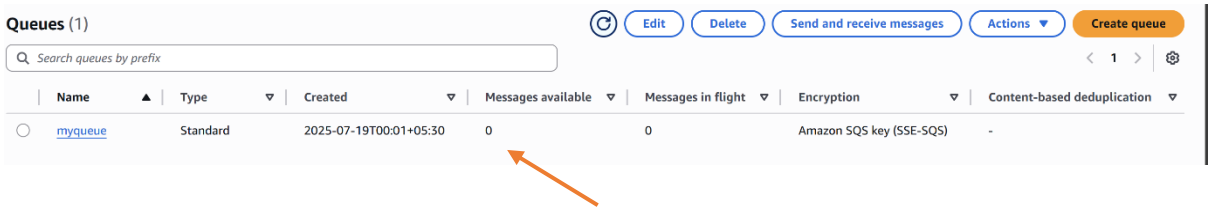


Step10:-

- Still there is two “message available”, refresh the queue.

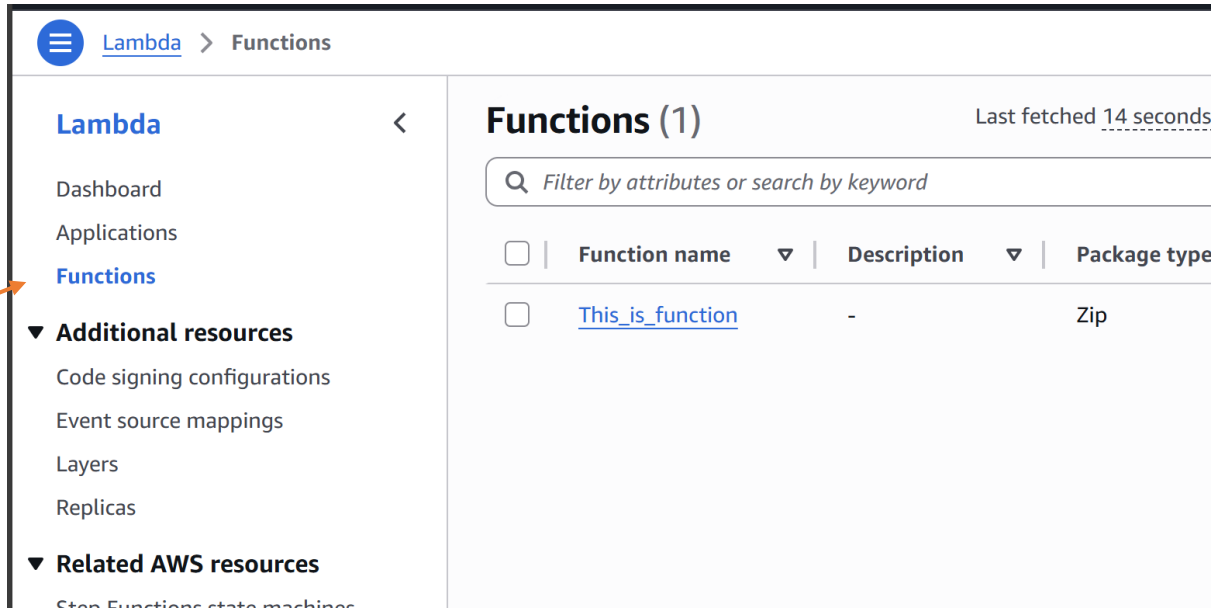


- There is no message are available all messages are send.

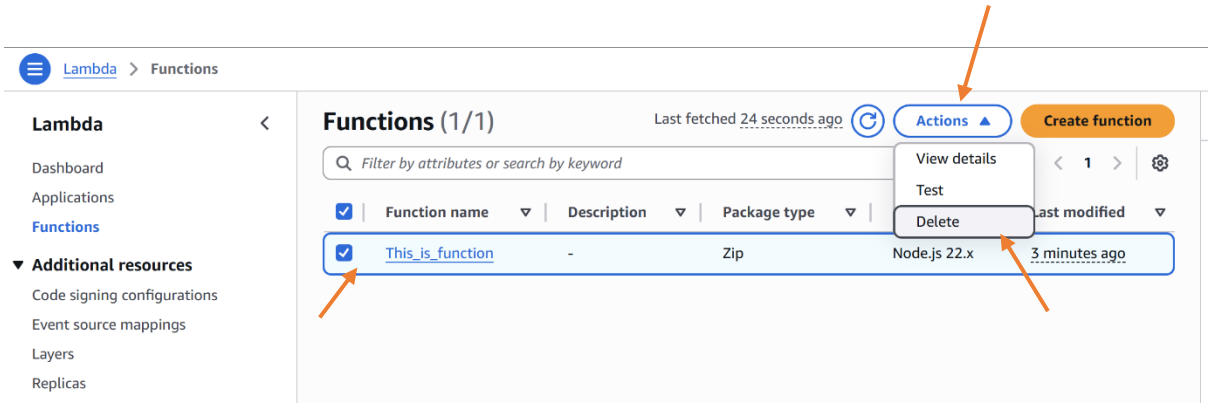


Step10:-

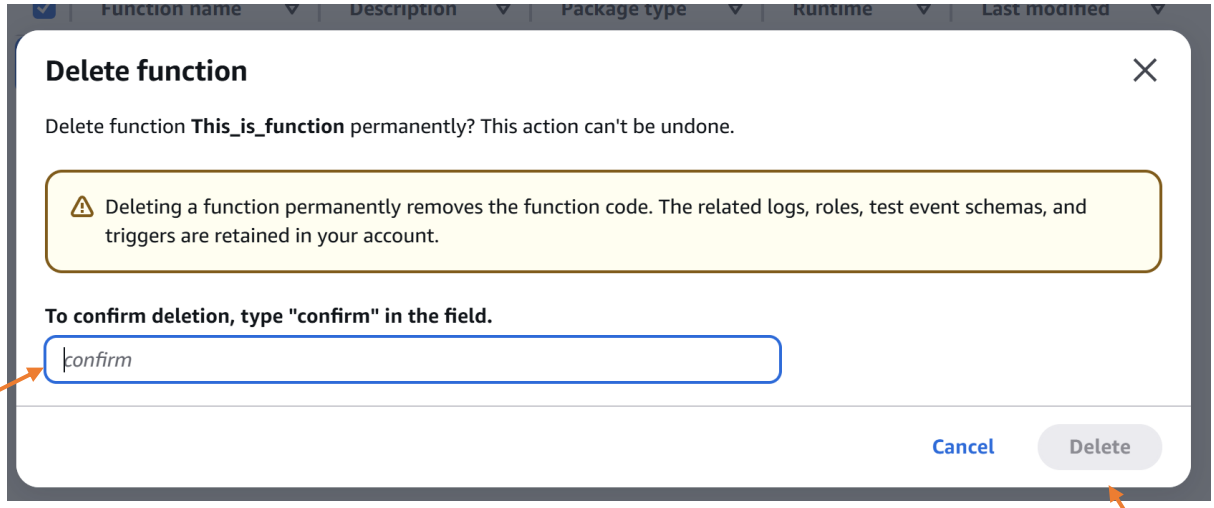
- Goto lamda.



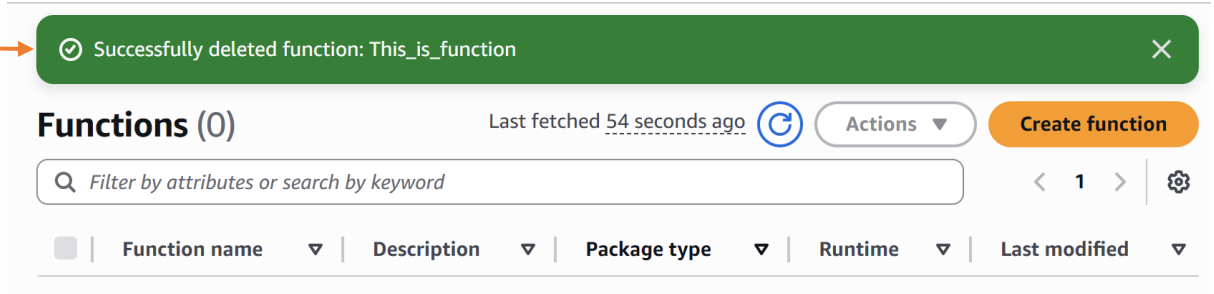
- Select the function, click on “Action” and then click on “Delete”.



- Type “confirm” and click on “Delete”.

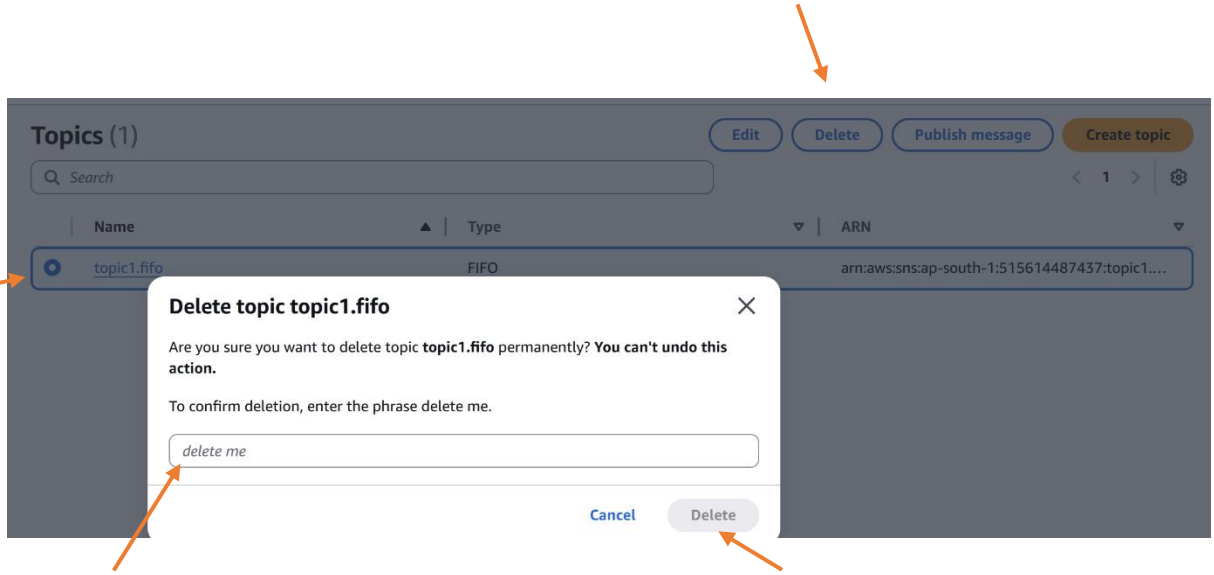


- Function is deleted successfully.

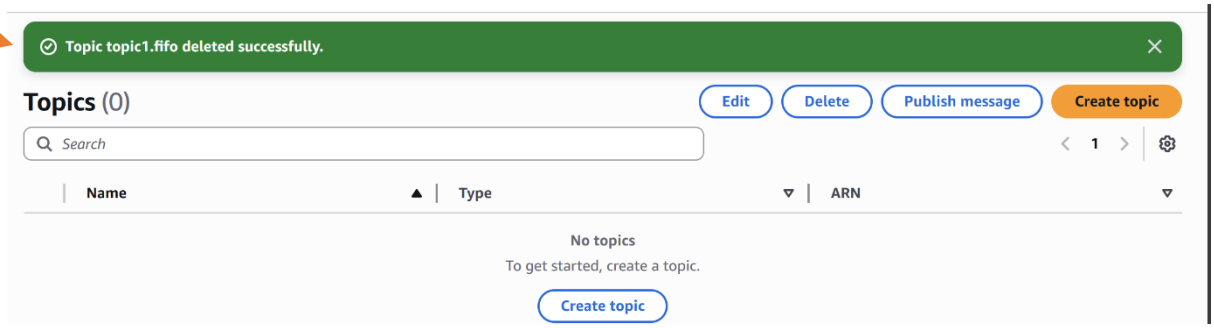


Step10:-

- Goto Simple notification service (SNS).
- Select topic.
- Click on “Delete”.
- Type “delete me”.
- Click on “Delete”.

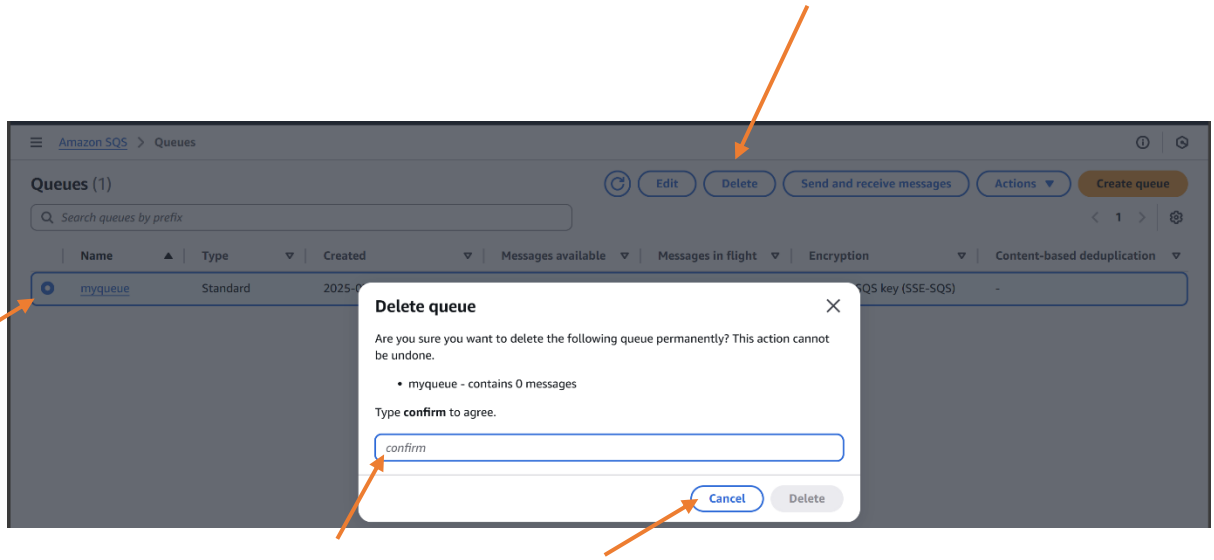


- Topic deleted successfully.



Step11:-

- Goto Simple Queue service (SQS).
- Select “Queue”.
- Click on “Delete”.
- Type “confirm”.
- Click on “delete”.



- Queue is deleted.