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Documentation on lambda function

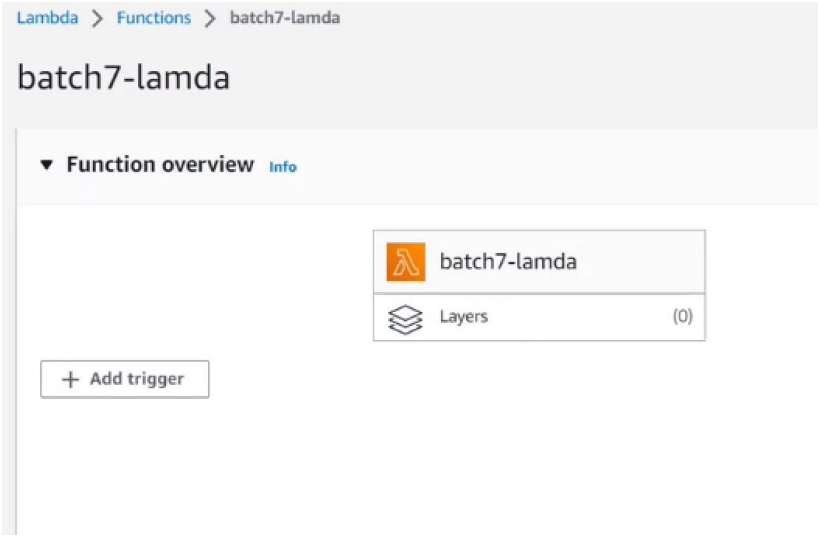
Steps of creating lambda function

- Go to AWS Management Console & Search for lambda function service, and click on Create Lambda function.
- Select author from scratch option
- Now give basic information that includes:
    - Function name
        - Runtime: language you want to use to create a function (Python 3.9)
            - Architecture: x86_64
- Now Give advanced setting that includes:

1. Enable tags: (Name, owner, Purpose)

- Now Click on Create.

Steps to add trigger and permission to trigger on Lambda Function



- Click on Add Trigger button.

- Enter a source as S3

Pre-requisite:

Create a S3 bucket and the steps are as follow:

1. Go to Services, Select S3 then click on create bucket.

2. Give general configuration that includes:
    - Bucket name
    - AWS region.
3. Now check in the Check Box of Acknowledge.
4. Add tags (Name, Owner, Purpose)
5. Click on Create.

- ➢ Now select the name of the bucket that you created.
- ➢ Now select event type (All object create event)
- ➢ Check in the Checkbox of acknowledgement.
- ➢ Click on Add.

Adding Permission to the triggers:

- Go to Permission, then role name (Link), click on that and new screen will open.
- Click on add permission
- attach policy
- Give amazonS3FullAccess.
- Click on Add button.

Since we added the trigger i.e. S3, now to trigger the function we have to upload something on the bucket, that will later trigger the lambda function.

Triggering the function:

- Open the code and type: print(event)

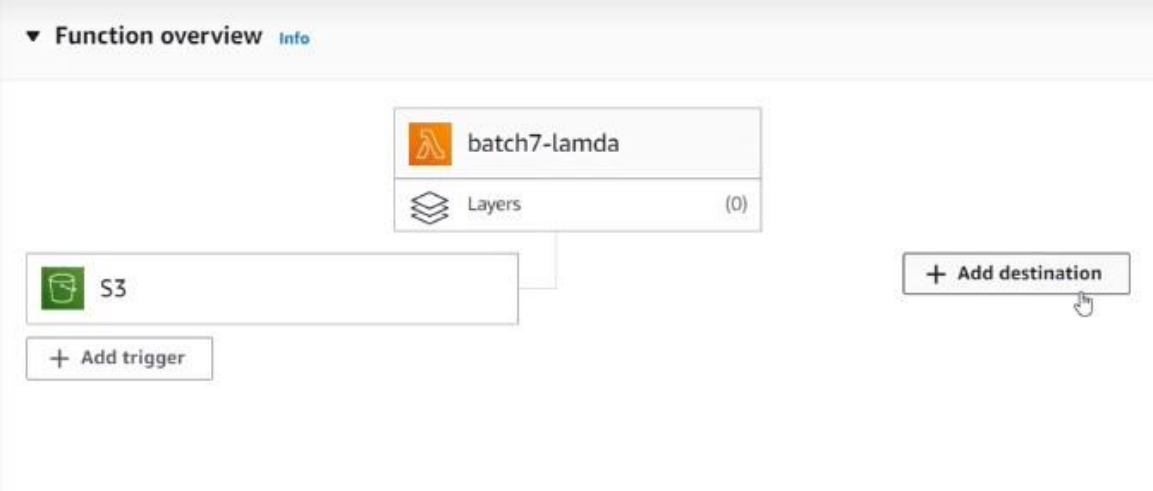
```
import boto3

def lambda_handler(event, context):

    print(event)

    return {
        'statusCode': 200,
        'body': 'file upload successfully!'
    }
```

- Click on test

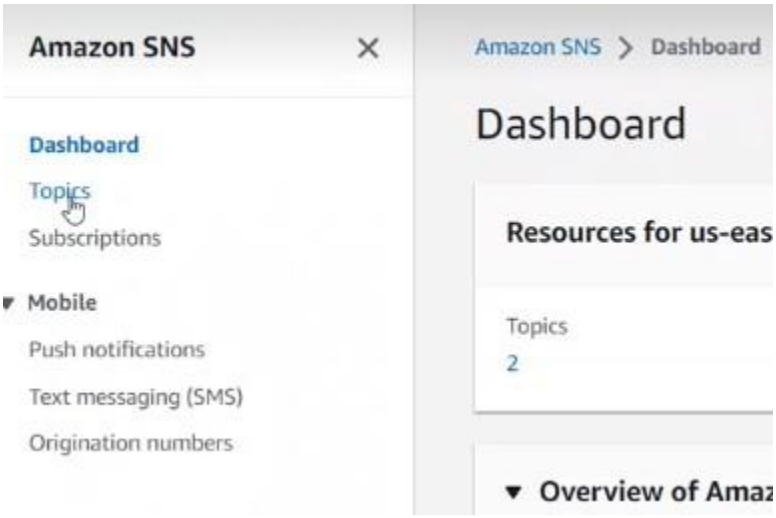
- New screen will display that will ask you to configure test event.
- Select test event action as create new event.
- Give the event name.
- Set event sharing setting as private.
- Give the key values and click on save.
- Click on Deploy
- Click on test.
- Now you can monitor the function at cloud watch under Monitor option.

Adding destination to your lambda function

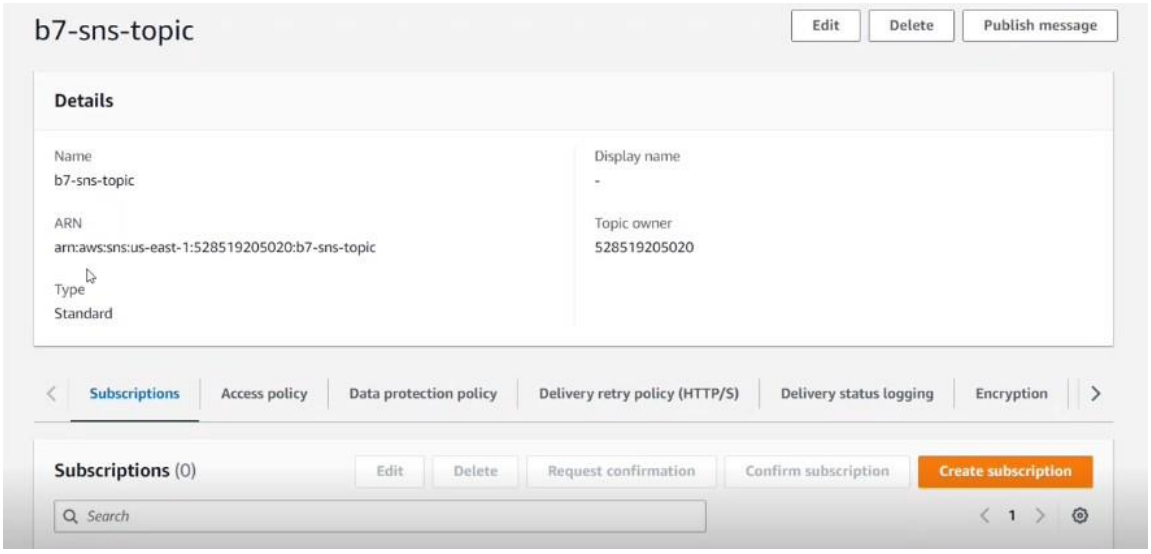
- Click on add destination and gives the destination configuration.



- Select the type of invocation i.e. SOURCE as Asynchronous invocation to map destination.
- Set condition for using destination as On Success.
- Set Destination type as SNS.
- Go to AWS Services and select SNS & then go toTOPICS.



1. Click on create Topic and give details like:
2. Select type as Standard
3. Give Name of topic.
4. Add tags
5. Click Create and Add Subscription to it by clicking on Create subscription. Using thiswe can use SNS with other lambda services.



6. Now, select the protocol as EMAIL (as we want to receive the notification on our email.)

7. Give your email address in ENDPOINT.
8. Click Create Subscription.
9. You will receive a mail at your email address, do the confirmation and you are ready to go.

- Choose a destination from drop down list as name of your SNS topic
- Click on save.

To invoke the lambda function using boto3

- Create a lambda function which contains the action part.
- Then create another lambda function which will call the first lambda function using Boto3.
- When we run the 2nd lambda function, it will show that the execution is successful under the execution results tab.
- After that, go to the first lambda function and open the Cloud Watch to check if the desired output is there or not.

```
25  import json
26  import boto3
27
28  def lambda_handler(event, context):
29      client = boto3.client('lambda')
30
31      response = client.invoke(
32
33          FunctionName='batch7-lambda2',
34          Payload='{"MESSAGE": "func 1"}',
35          )
36
37      print(response)
38
39      print(event)
40
41      return {
42          'statusCode': 200,
43          'body': 'Hello from sachin!'
44          }
45
```

Enable policy AWS Lambda Role to invoke one lambda function in another lambda function.

FOR MORE REFERENCE : https://docs.aws.amazon.com/lambda/index.html