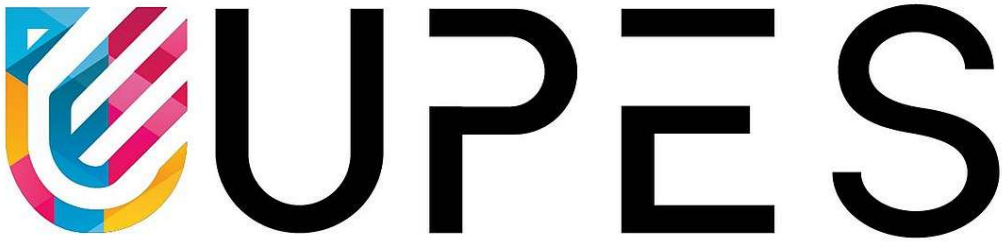

CLOUD SECURITY & MANAGEMENT LAB

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Roll no: R2142211262

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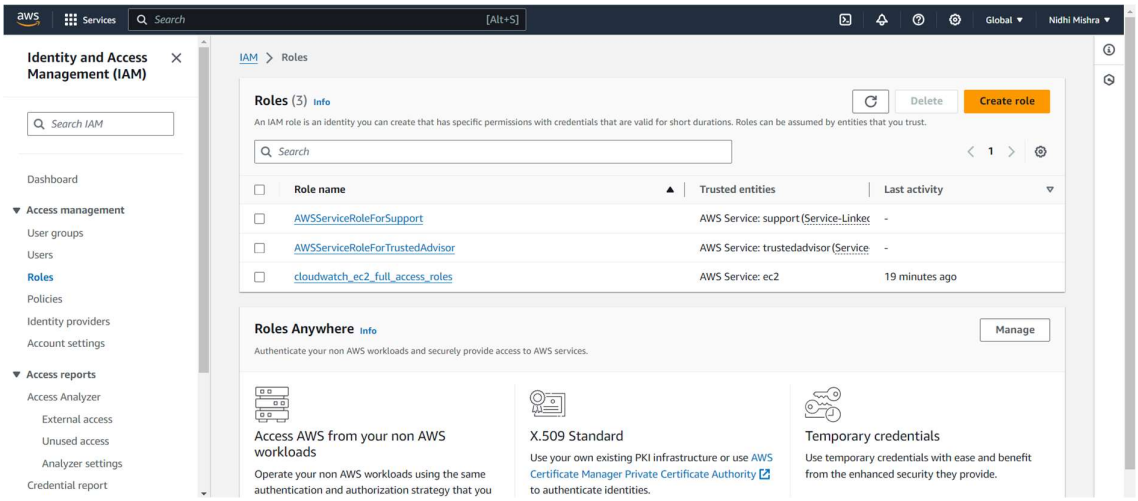
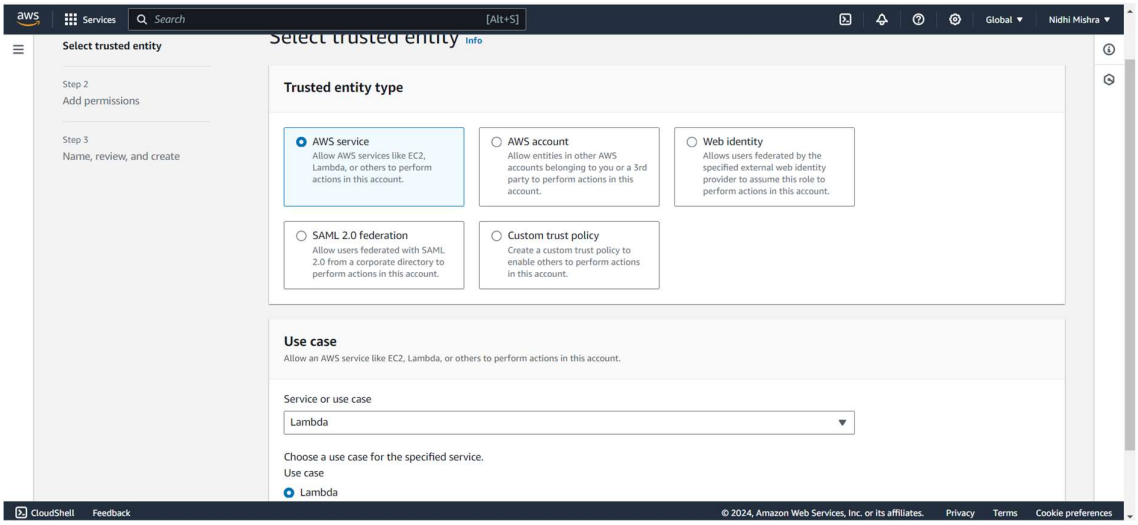
SUBMISSION TO:

Ms. Avita Katal

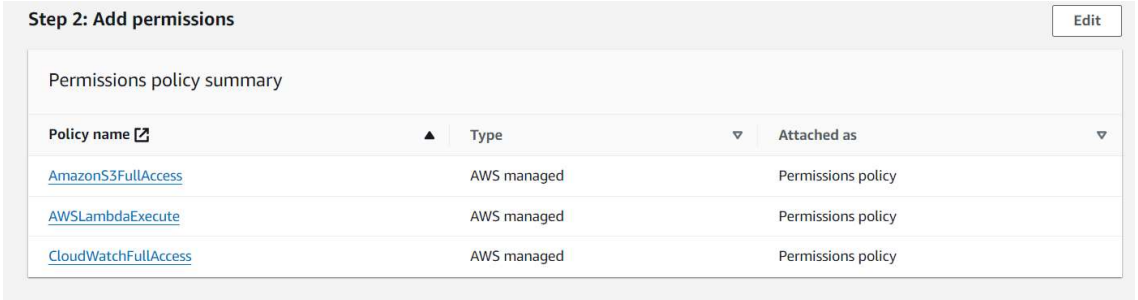
Experiment 6 b)-Sending the cloudwatch logs to S3 with the help of AWS Lambda.

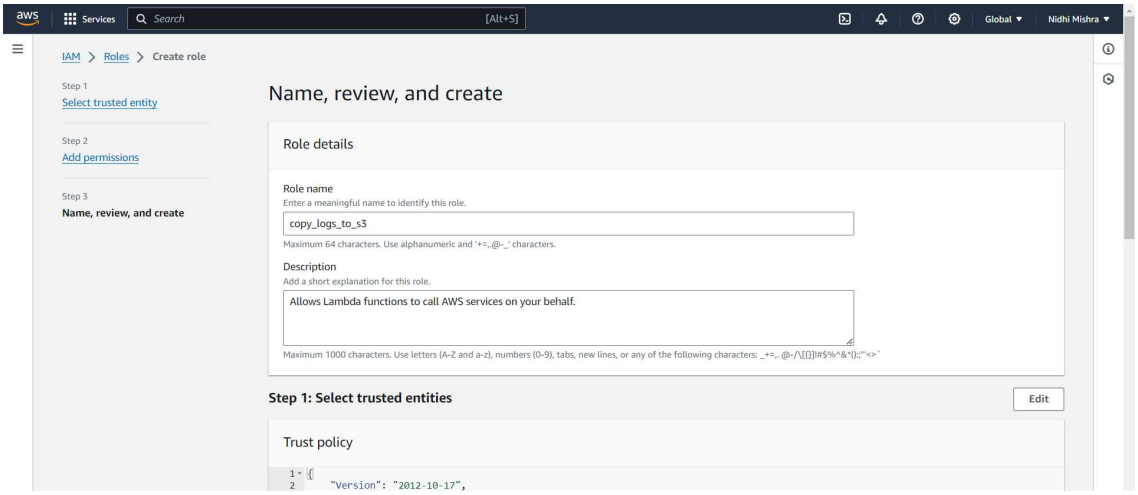
STEP 1: Firstly, go to IAM roles and create a role for lambda.

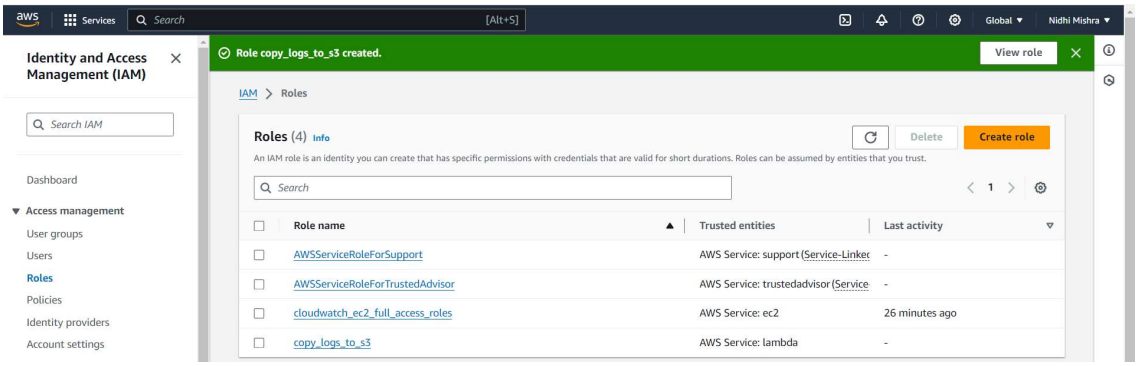




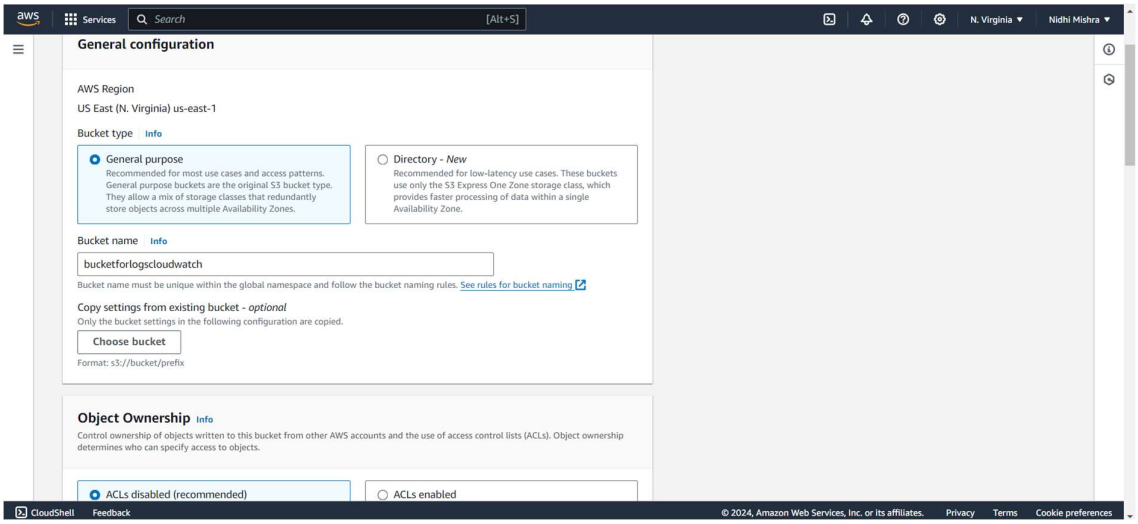
STEP 2: Attach these policies to that role and rename it.

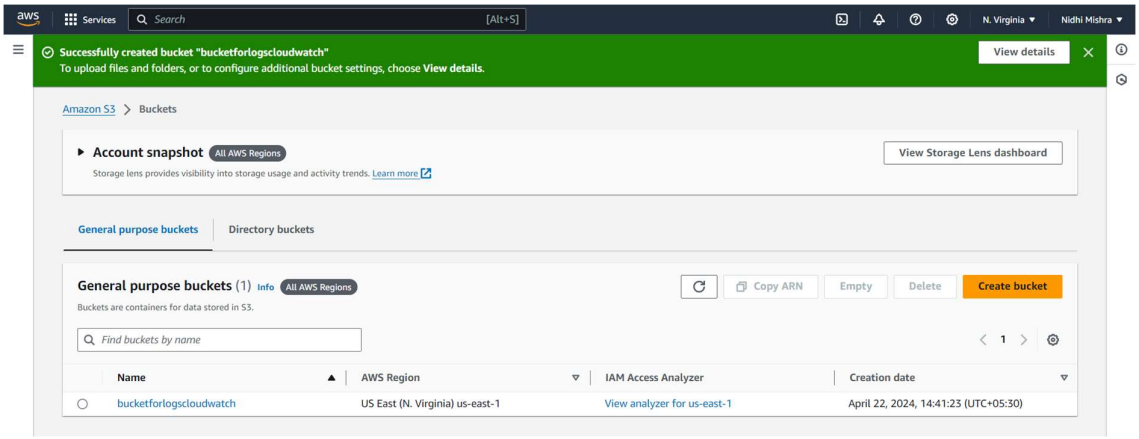






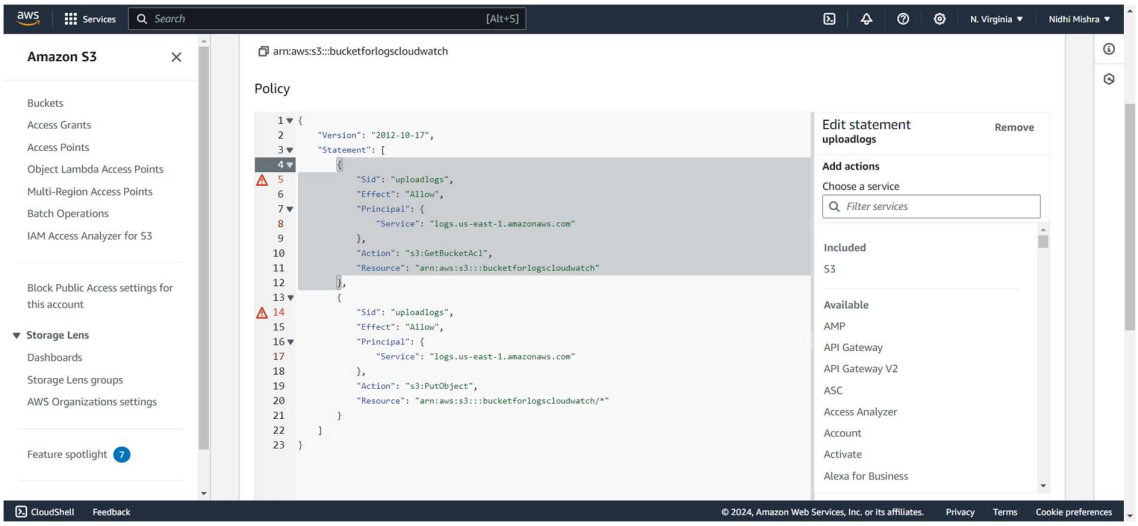
STEP 3: Create a bucket in which we are going to store the log files.



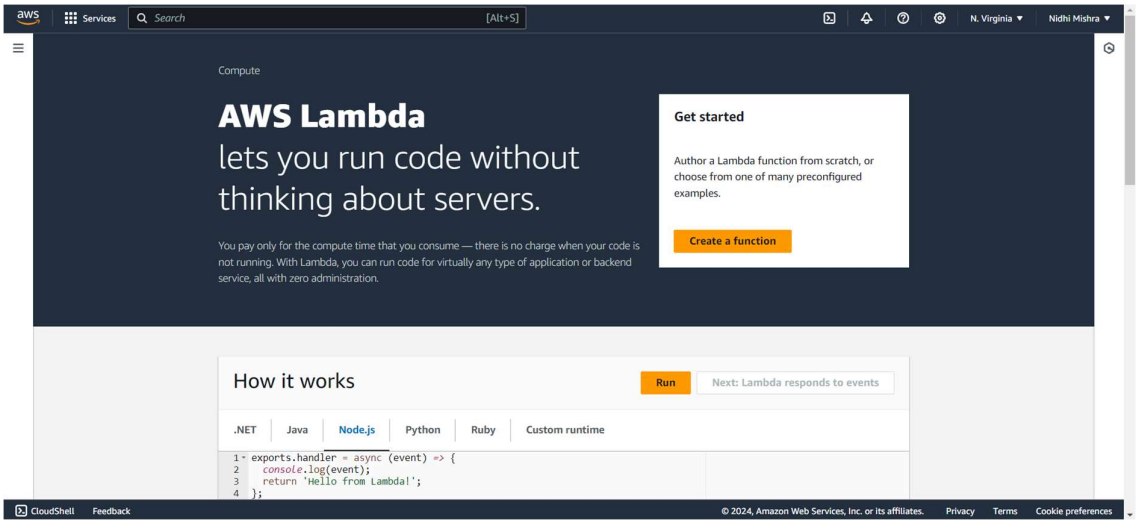


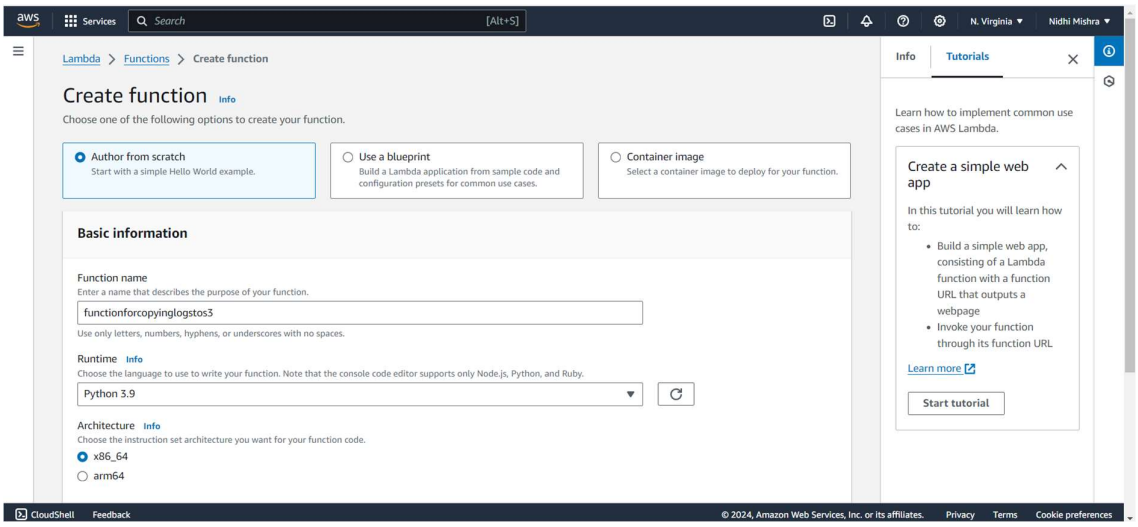
STEP 4: Edit the bucket policy as given:

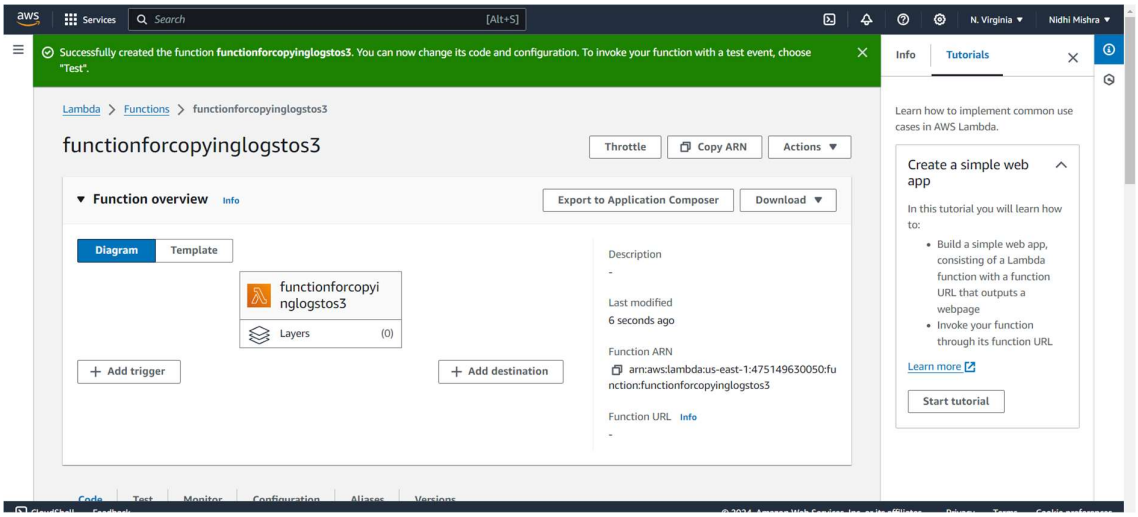
```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "uploadlogs",
      "Effect": "Allow",
      "Principal": {
        "Service": "logs.us-east-1.amazonaws.com"
      },
      "Action": "s3:GetBucketAcl",
      "Resource": "arn:aws:s3:::bucketforlogscloudwatch"
    },
    {
      "Sid": "uploadlogs",
      "Effect": "Allow",
      "Principal": {
        "Service": "logs.us-east-1.amazonaws.com"
```



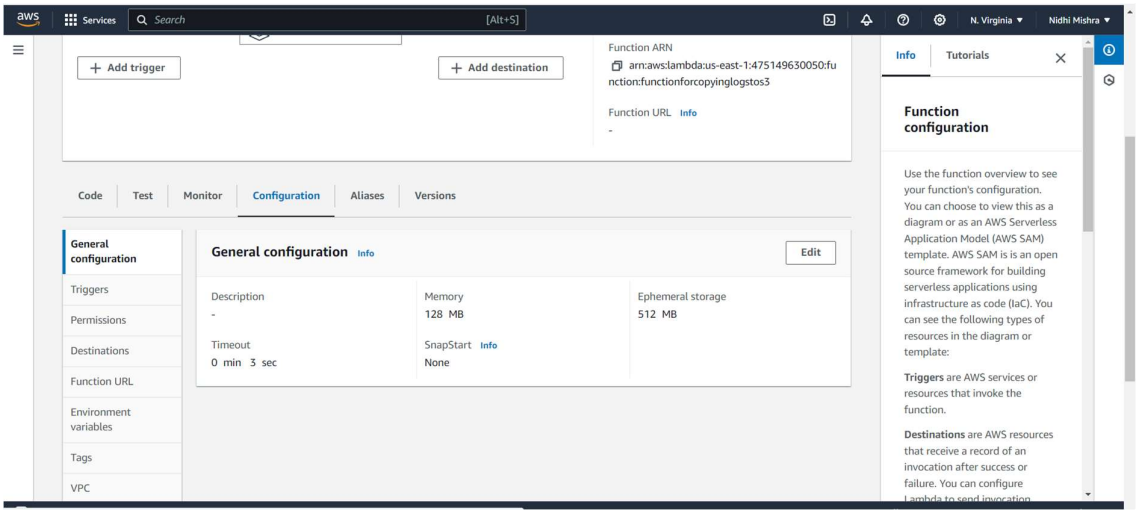
STEP 5: Now, go to AWS Lambda tab and create a lambda function.

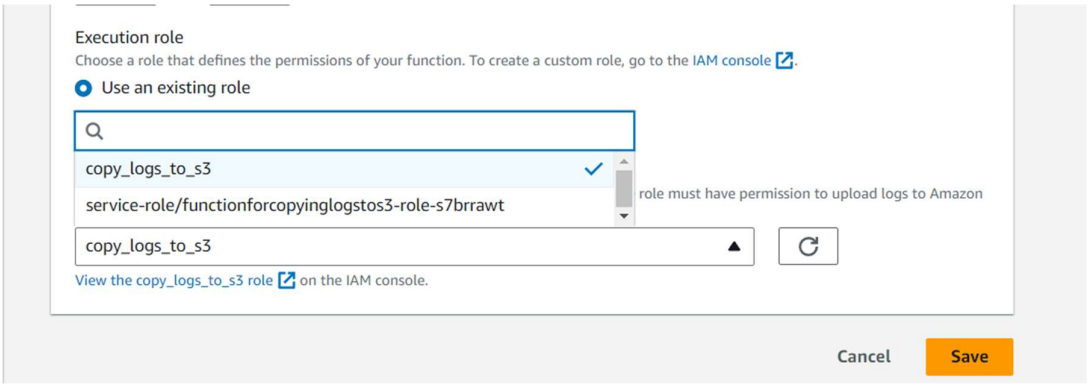






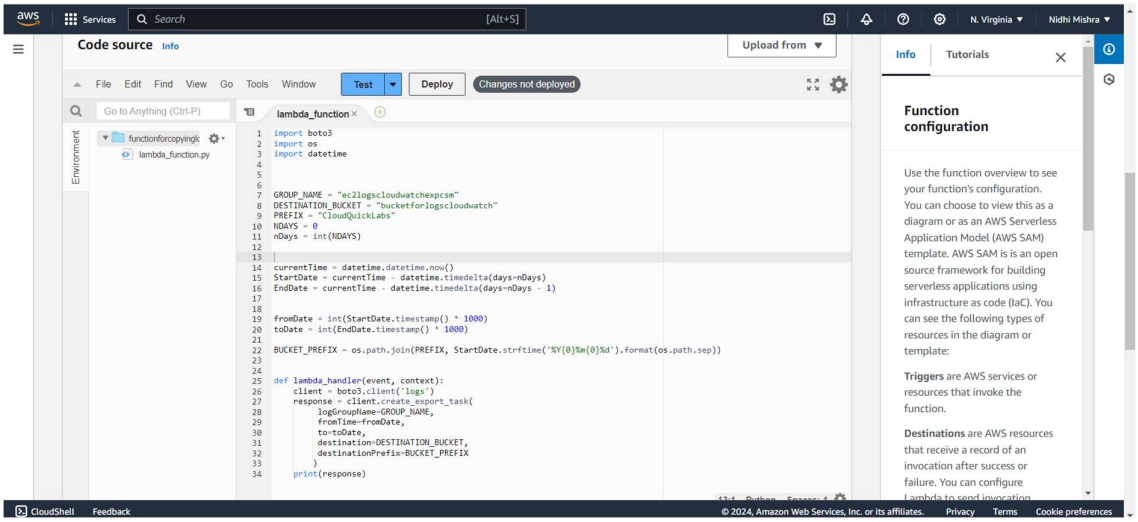
STEP 6: Now go to configuration tab in Lambda function that we have created and attach the IAM role to it.



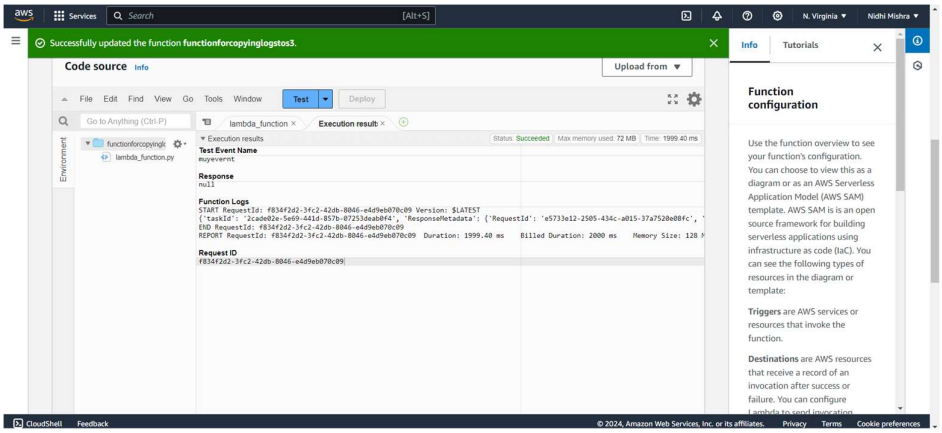


STEP 7: Now go to code tab and run the script to copy log files to s3 as shown below.

```
import boto3
import os
import datetime



GROUP_NAME = "ec2logscloudwatchexpcsm"
DESTINATION_BUCKET = "bucketforlogscloudwatch"
PREFIX = "CloudQuickLabs"
NDAYS = 0
nDays = int(NDAYS)



currentTime = datetime.datetime.now()
StartDate = currentTime - datetime.timedelta(days=nDays)
EndDate = currentTime - datetime.timedelta(days=nDays - 1)



fromDate = int(StartDate.timestamp() * 1000)
toDate = int(EndDate.timestamp() * 1000)

BUCKET_PREFIX = os.path.join(PREFIX, StartDate.strftime('%Y{0}%m{0}%d').format(os.path.sep))



def lambda_handler(event, context):
  client = boto3.client('logs')
  response = client.create_export_task(
     logGroupName=GROUP_NAME,
     fromTime=fromDate,
     to=toDate,
     destination=DESTINATION_BUCKET,
     destinationPrefix=BUCKET_PREFIX
    )
  print(response)
```



STEP 8: Deploy and test the code.



STEP 9: Now check that if the logs are copied inside the bucket or not.