Task: Create a API which creates a task in ECS and task should perform below operations.

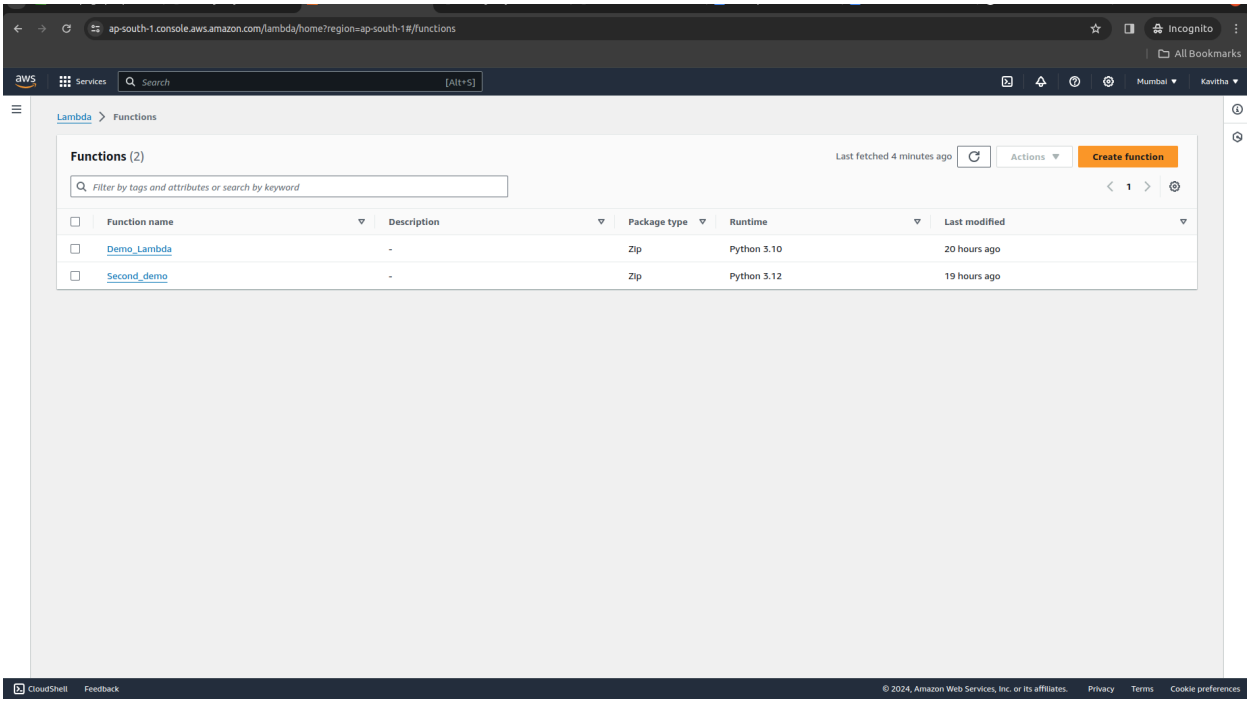
1. Generate file with random name.
2. Upload that file to a s3 bucket.
3. And exit the task.

Solution :-

Region -Mumbai

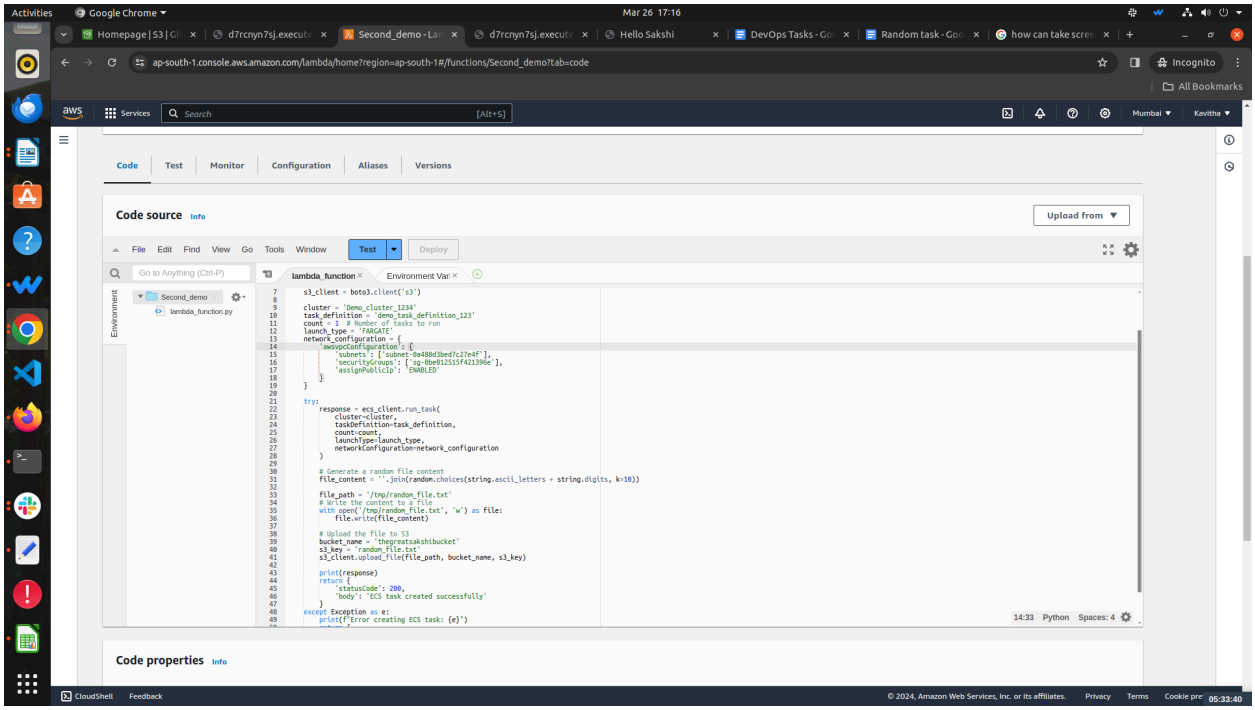
1 . Created lambda function
Code - Python (boto3)

- Lambda function name :- Second_demo



- Under this created function "Second_demo"
  Lambda code is there .

- Through deploy & test this code



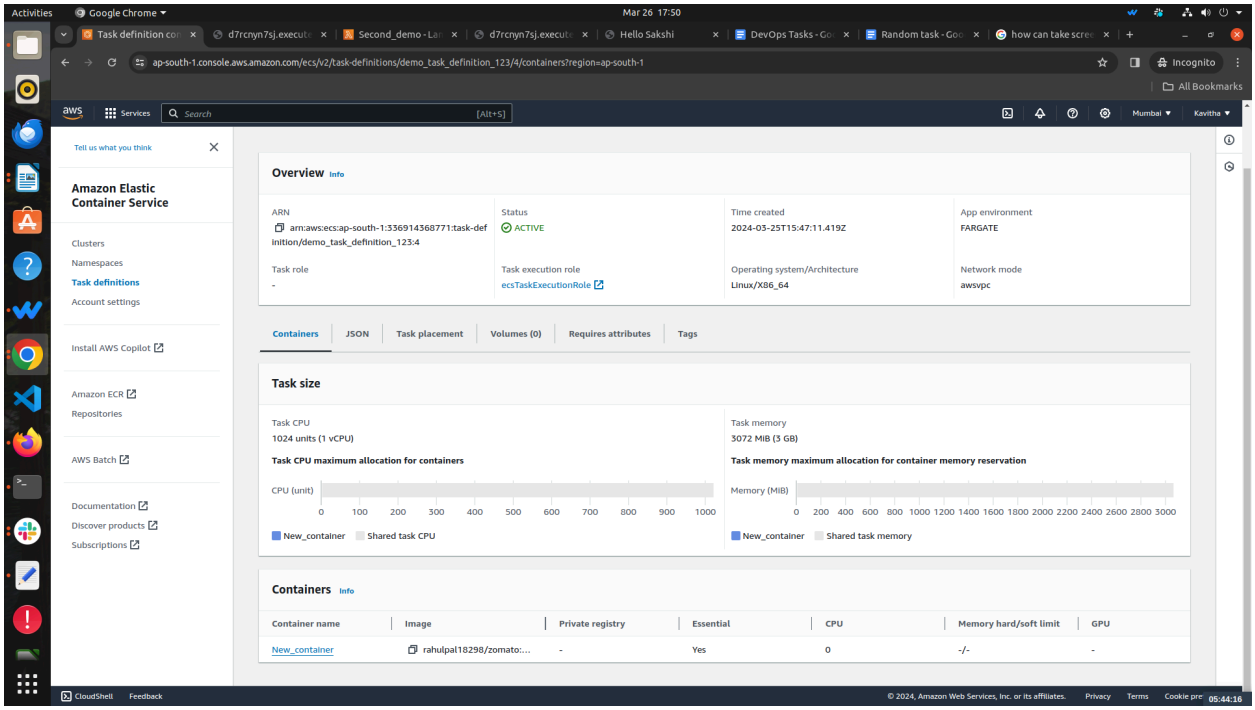
2 . Created ECS task

ECS Name - Demo_cluster_1234
Task definition - demo_task_definition_123

By using this below code

```
cluster = 'Demo_cluster_1234'
    task_definition = 'demo_task_definition_123'
    count = 1  # Number of tasks to run
    launch_type = 'FARGATE'
    network_configuration = {
        'awsvpcConfiguration': {
            'subnets': ['subnet-0a480d3bed7c27e4f'],
            'securityGroups': ['sg-0be012515f421396e'],
            'assignPublicIp': 'ENABLED'
        }
    }
```

Task definition




```
try:
    response = ecs_client.run_task(
        cluster=cluster,
        taskDefinition=task_definition,
        count=count,
        launchType=launch_type,
        networkConfiguration=network_configuration
    )
```

3. Creating s3 bucket

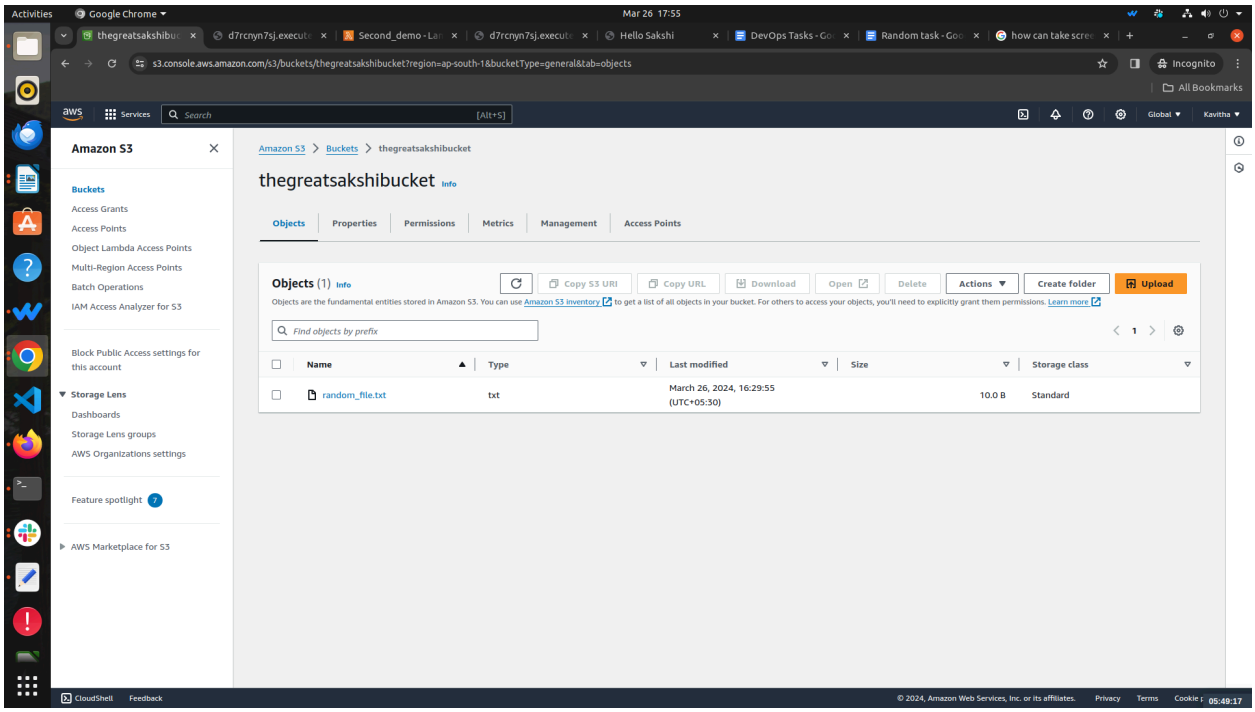
Bucket Name :- thegreatsakshibucket
Object :- random_file.txt

```
# Generate a random file content
    file_content = ''.join(random.choices(string.ascii_letters + string.digits, k=10))

file_path = '/tmp/random_file.txt'
    # Write the content to a file
    with open('/tmp/random_file.txt', 'w') as file:
        file.write(file_content)

# Upload the file to S3
    bucket_name = 'thegreatsakshibucket'
    s3_key = 'random_file.txt'
```

s3_client.upload_file(file_path, bucket_name, s3_key)



4. API Gateway

Trigger

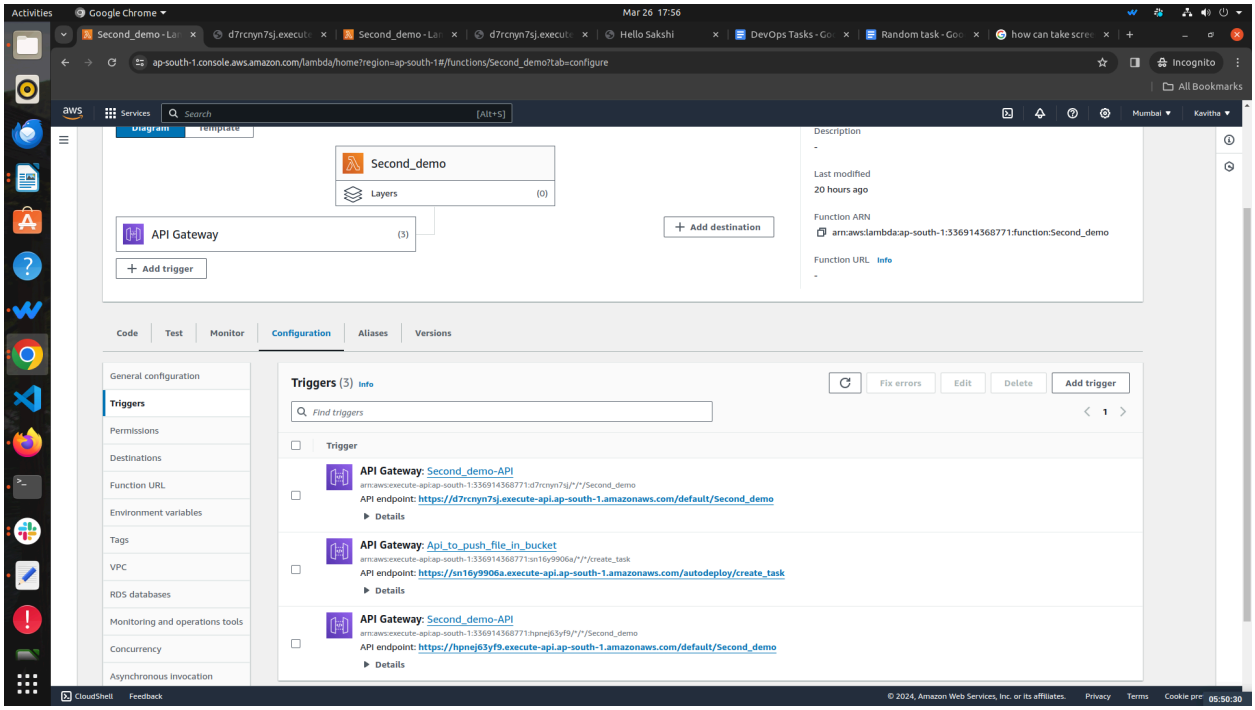
API Gateway: [Second_demo-API]

arn:aws:execute-api:ap-south-1:336914368771:d7rcnyn7sj/*/*/Second_demo

API endpoint:

https://d7rcnyn7sj.execute-api.ap-south-1.amazonaws.com/default/Second_demo

Details



Here the code which I deploy in lambda function

```
import boto3
import random
import string

def lambda_handler(event, context):
    ecs_client = boto3.client('ecs')
    s3_client = boto3.client('s3')

    cluster = 'Demo_cluster_1234'
    task_definition = 'demo_task_definition_123'
    count = 1  # Number of tasks to run
    launch_type = 'FARGATE'
    network_configuration = {
        'awsvpcConfiguration': {
            'subnets': ['subnet-0a480d3bed7c27e4f'],
            'securityGroups': ['sg-0be012515f421396e'],
            'assignPublicIp': 'ENABLED'
        }
    }

    try:
        response = ecs_client.run_task(
            cluster=cluster,
            taskDefinition=task_definition,
            count=count,
            launchType=launch_type,
            networkConfiguration=network_configuration
        )

        # Generate a random file content
```

```
    file_content = ''.join(random.choices(string.ascii_letters + string.digits, k=10))

    file_path = '/tmp/random_file.txt'
    # Write the content to a file
    with open('/tmp/random_file.txt', 'w') as file:
        file.write(file_content)

    # Upload the file to S3
    bucket_name = 'thegreatsakshibucket'
    s3_key = 'random_file.txt'
    s3_client.upload_file(file_path, bucket_name, s3_key)

    print(response)
    return {
        'statusCode': 200,
        'body': 'ECS task created successfully'
    }
  except Exception as e:
    print(f"Error creating ECS task: {e}")
    return {
        'statusCode': 500,
        'body': f'Error creating ECS task: {e}'
    }
```

Note :- If want to open the credential for check all mentioned services , kindly access with below credentials
root user

id -sudigundukavitha@gmail.com

pass - Kavitha22@03