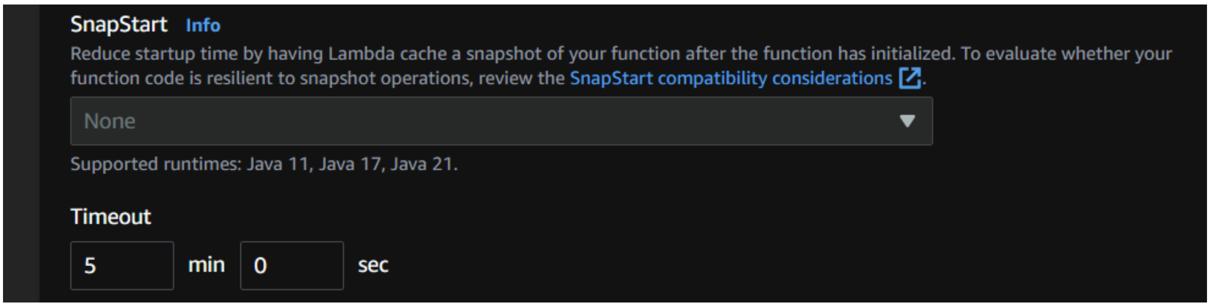
POC FOR ASSIGNMENT-6

LINK - https://ap-south-2.console.aws.amazon.com/lambda/home?region=ap-south-2#/functions/MayankS3Lambda?tab=code

Code ->

```
import boto3


def lambda_handler(event, context):
    # Specific source bucket name and Destination Bucket Name and also specific s3 region
    source_bucket = 'src-s3lambda'
    destination_bucket = 'dest-s3lambda'
    source_region = 'us-east-1'   #us-east-1 is the bucket region


    # Create an S3 client with the specified region
    s3 = boto3.client('s3', region_name=source_region)


    # List all objects in the source bucket
    try:
 #this response will get the content of all folder where / is used to specific folder name “folder-name/”
        response = s3.list_objects_v2(Bucket=source_bucket, Prefix='', Delimiter='/')
        objects = response.get('Contents', [])
        for common_prefix in response.get('CommonPrefixes', []):
            prefix = common_prefix['Prefix']
#this object will get the individual contents in the folder
            objects.extend(s3.list_objects_v2(Bucket=source_bucket, Prefix=prefix).get('Contents', []))
    except Exception as e:
        print(f"Error listing objects in {source_bucket}: {e}")
        raise  # Re-raise the exception to propagate it to CloudWatch Logs

    # Iterate over each object and copy it to the destination bucket
    for obj in objects:
        key = obj['Key']
        copy_source = {'Bucket': source_bucket, 'Key': key}
        destination_key = key  # Optionally, you can modify this to place objects in a specific folder
        destination = {'Bucket': destination_bucket, 'Key': destination_key}
#copy the all content from source to destination bucket
        try:
            s3.copy_object(CopySource=copy_source, Bucket=destination['Bucket'], Key=destination['Key'])
            print(f"Successfully transferred {key} from {source_bucket} to {destination_bucket}")
        except Exception as e:
            print(f"Error transferring {key}: {e}")

    return {
        'statusCode': 200,
        'body': 'Transfer completed successfully'
    }
```

If the code gives timeout increase the time in configuration of lambda function



SnapStart Info

Reduce startup time by having Lambda cache a snapshot of your function after the function has initialized. To evaluate whether your function code is resilient to snapshot operations, review the SnapStart compatibility considerations.

None

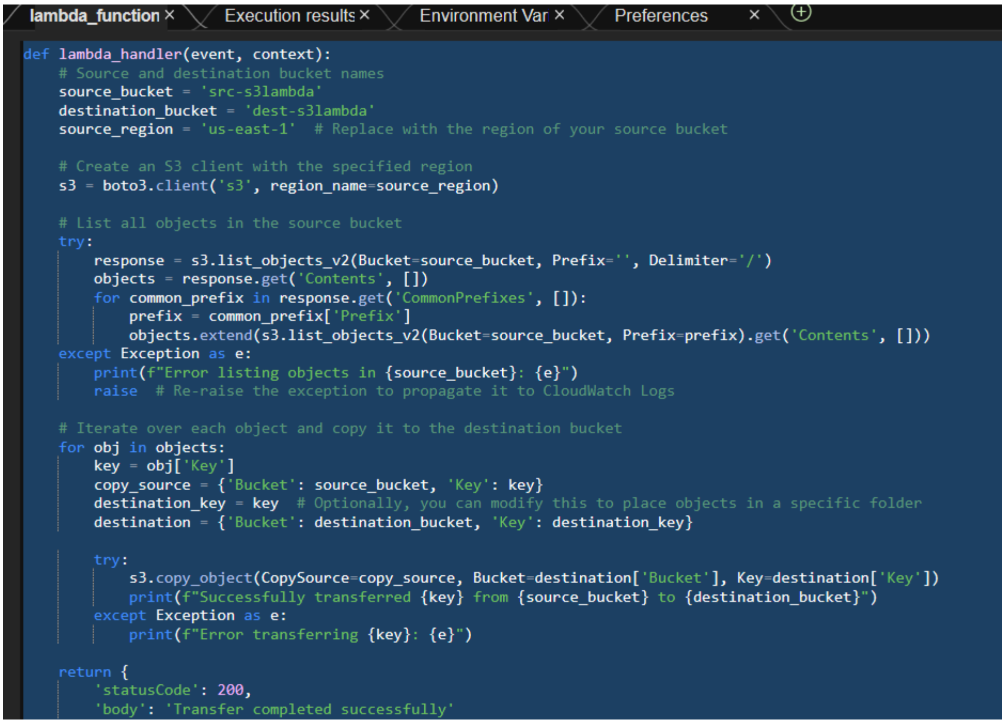
Supported runtimes: Java 11, Java 17, Java 21.

Timeout

5 min 0 sec

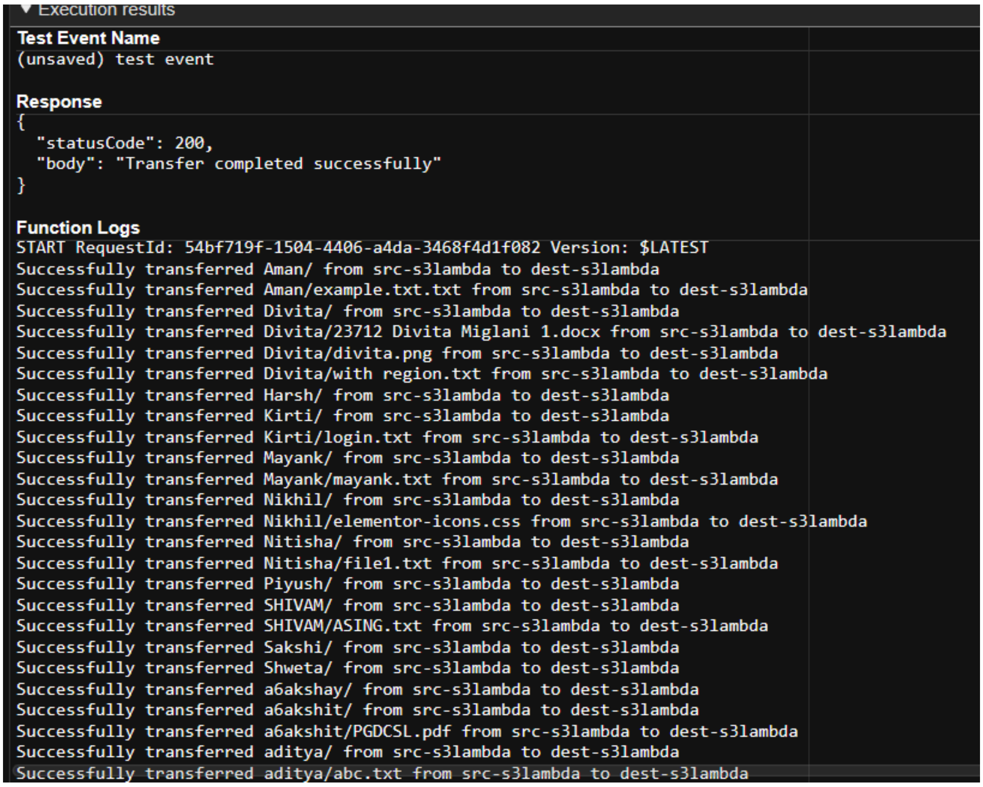
Screenshot - >

- After coding click on deploy and test the code.



```
def lambda_handler(event, context):
    # Source and destination bucket names
    source_bucket = 'src-s3lambda'
    destination_bucket = 'dest-s3lambda'
    source_region = 'us-east-1'  # Replace with the region of your source bucket

    # Create an S3 client with the specified region
    s3 = boto3.client('s3', region_name=source_region)

    # List all objects in the source bucket
    try:
        response = s3.list_objects_v2(Bucket=source_bucket, Prefix='', Delimiter='/')
        objects = response.get('Contents', [])
        for common_prefix in response.get('CommonPrefixes', []):
            prefix = common_prefix['Prefix']
            objects.extend(s3.list_objects_v2(Bucket=source_bucket, Prefix=prefix).get('Contents', []))
    except Exception as e:
        print(f"Error listing objects in {source_bucket}: {e}")
        raise  # Re-raise the exception to propagate it to CloudWatch Logs

    # Iterate over each object and copy it to the destination bucket
    for obj in objects:
        key = obj['Key']
        copy_source = {'Bucket': source_bucket, 'Key': key}
        destination_key = key  # Optionally, you can modify this to place objects in a specific folder
        destination = {'Bucket': destination_bucket, 'Key': destination_key}

        try:
            s3.copy_object(CopySource=copy_source, Bucket=destination['Bucket'], Key=destination['Key'])
            print(f"Successfully transferred {key} from {source_bucket} to {destination_bucket}")
        except Exception as e:
            print(f"Error transferring {key}: {e}")

    return {
        'statusCode': 200,
        'body': 'Transfer completed successfully'
```

Output



Test Event Name

```
(unsaved) test event
```

Response

```
{
  "statusCode": 200,
  "body": "Transfer completed successfully"
}
```

Function Logs

```
START RequestId: 54bf719f-1504-4406-a4da-3468f4d1f082 Version: $LATEST
Successfully transferred Aman/ from src-s3lambda to dest-s3lambda
Successfully transferred Aman/example.txt.txt from src-s3lambda to dest-s3lambda
Successfully transferred Divita/ from src-s3lambda to dest-s3lambda
Successfully transferred Divita/23712 Divita Miglani 1.docx from src-s3lambda to dest-s3lambda
Successfully transferred Divita/divita.png from src-s3lambda to dest-s3lambda
Successfully transferred Divita/with region.txt from src-s3lambda to dest-s3lambda
Successfully transferred Harsh/ from src-s3lambda to dest-s3lambda
Successfully transferred Kirti/ from src-s3lambda to dest-s3lambda
Successfully transferred Kirti/login.txt from src-s3lambda to dest-s3lambda
Successfully transferred Mayank/ from src-s3lambda to dest-s3lambda
Successfully transferred Mayank/mayank.txt from src-s3lambda to dest-s3lambda
Successfully transferred Nikhil/ from src-s3lambda to dest-s3lambda
Successfully transferred Nikhil/elementor-icons.css from src-s3lambda to dest-s3lambda
Successfully transferred Nitisha/ from src-s3lambda to dest-s3lambda
Successfully transferred Nitisha/file1.txt from src-s3lambda to dest-s3lambda
Successfully transferred Piyush/ from src-s3lambda to dest-s3lambda
Successfully transferred SHIVAM/ from src-s3lambda to dest-s3lambda
Successfully transferred SHIVAM/ASING.txt from src-s3lambda to dest-s3lambda
Successfully transferred Sakshi/ from src-s3lambda to dest-s3lambda
Successfully transferred Shweta/ from src-s3lambda to dest-s3lambda
Successfully transferred a6akshay/ from src-s3lambda to dest-s3lambda
Successfully transferred a6akshit/ from src-s3lambda to dest-s3lambda
Successfully transferred a6akshit/PGDCSL.pdf from src-s3lambda to dest-s3lambda
Successfully transferred aditya/ from src-s3lambda to dest-s3lambda
Successfully transferred aditya/abc.txt from src-s3lambda to dest-s3lambda
```