

DAY 9 ASSIGNMENT

Deploy lambda function to copy the objects from source s3 bucket to target bucket

1.Create policy for copying

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "logs:CreateLogStream",
        "logs:CreateLogGroup",
        "logs:PutLogEvents"
      ],
      "Resource": "*"
    },
    {
      "Sid": "VisualEditor1",
      "Effect": "Allow",
      "Action": [
        "s3:ListBucketVersions",
        "s3:ListBucket"
      ],
      "Resource": [
        "arn:aws:s3:::arun-d9tarbucket",
        "arn:aws:s3:::arun-d9srcbucket"
      ]
    },
    {
      "Sid": "VisualEditor2",
      "Effect": "Allow",
      "Action": [
        "s3:GetObject",
        "s3:GetObjectVersion"
      ],
      "Resource": "arn:aws:s3:::arun-d9srcbucket/*"
    },
    {
      "Sid": "VisualEditor3",
      "Effect": "Allow",
      "Action": "s3:PutObject",
      "Resource": "arn:aws:s3:::arun-d9tarbucket/*"
    }
  ]
}
```

2. Creating source and target bucket

<input type="radio"/>	arun-d9srcbucket	US East (N. Virginia) us-east-1	December 2, 2021, 19:04:05 (UTC+05:30)
<input type="radio"/>	arun-d9tarbucket	US East (N. Virginia) us-east-1	December 2, 2021, 19:04:25 (UTC+05:30)

3. Attaching policy to the role

Roles > arun-d9srcrole

Summary

[Delete role](#)

Role ARN arn:aws:iam::590852515231:role/arun-d9srcrole

Role description Allows Lambda functions to call AWS services on your behalf. [Edit](#)

Instance Profile ARNs

Path /

Creation time 2021-12-02 19:10 UTC+0530

Last activity 2021-12-02 19:14 UTC+0530 (Today)

Maximum session duration 1 hour [Edit](#)

Permissions | Trust relationships | Tags (1) | Access Advisor | Revoke sessions

▼ Permissions policies (1 policy applied)

[Attach policies](#) [Add inline policy](#)

Policy name	Policy type
arun-d9policysrctar	Managed policy

Lambda function

```
File Edit Find View Go Tools Window Test Deploy Changes deployed
Go to Anything (Ctrl-P)
Environment
  arun-lambda-srctar
    lambda_function.py
  lambda_function x
1 import json
2 import boto3
3 import os
4 from urllib.parse import unquote_plus
5 def lambda_handler(event, context):
6     s3 = boto3.client('s3')
7     for record in event['Records']:
8         srcKey = unquote_plus(record['s3']['object']['key'])
9         srcBucket = record['s3']['bucket']['name']
10        print(record)
11        print(srcKey)
12        destBucket = os.environ['DESTINATION_BUCKET']
13        print(destBucket)
14        if(srcKey.endswith('/') and record['s3']['object']['size'] == 0):
15            print('object is not a file, skipping execution...')
16        else:
17            try:
18                print("starting to copy...")
19                copySource = {'Bucket': srcBucket, 'Key': srcKey}
20                response = s3.copy_object(CopySource=copySource, Bucket=destBucket, Key=srcKey)
21                print("Object {} successfully copied to destination bucket {}".format(srcKey, destBucket))
22            except Exception as e:
23                print("ERROR: ", e)
```

Required env variable for lambda function

Environment variables (1) Edit	
The environment variables below are encrypted at rest with the default Lambda service key.	
Key	Value
DESTINATION_BUCKET	arun-demotarbucket

Trigger for lambda function

Triggers (1)

Q

S3

X

1 match

< 1 >

Trigger

S3: arun-d9srcbucket

arn:aws:s3:::arun-d9srcbucket

▼ Details

Event type: **ObjectCreated**

Notification name: **373b23dc-4363-4d37-9aba-4787f4cc9621**

arun-lambdasrctar

Throttle

Copy ARN

Actions ▼

▼ Function overview [Info](#)

arun-lambdasrctar

Layers (0)

S3

+ Add trigger

+ Add destination

Description

arun-srctar

Last modified

43 minutes ago

Function ARN

arn:aws:lambda:us-east-1:590852515231:function:arun-lambdasrctar

Verification
Source bucket

arun-d9srcbucket

Info

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (2)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Find objects by prefix

< 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	arunbuckettxtfile.txt	txt	December 2, 2021, 19:34:12 (UTC+05:30)	46.0 B	Standard
<input type="checkbox"/>	ARUNKUMAR-DAY 5 ASSIGNMENTS.pdf	pdf	December 2, 2021, 19:14:05 (UTC+05:30)	1.1 MB	Standard

Destination bucket

arun-d9tarbucket

Info

Objects

Properties

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Metrics

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< 1 >

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	arunbuckettxtfile.txt	txt	December 2, 2021, 19:34:16 (UTC+05:30)	46.0 B	Standard