

Experiment 5

Automation and Optimization with Amazon S3

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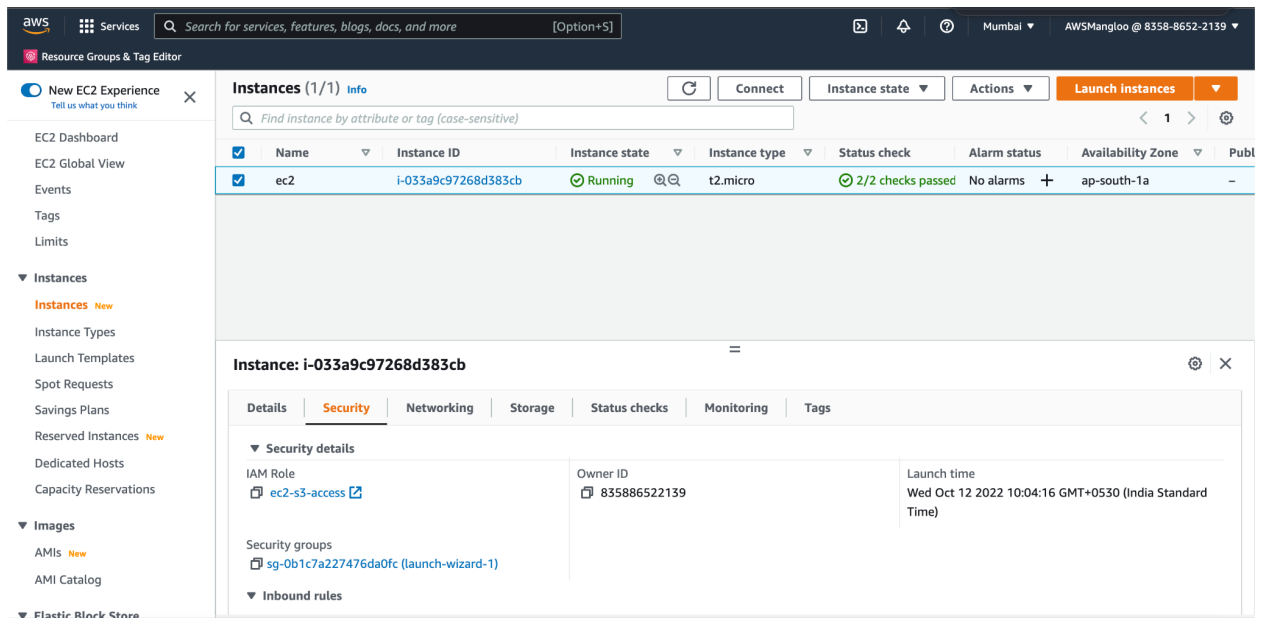
Reg No : RA2011028010094

Aim : Automate Files backup to aws S3 bucket on Linux machine.

Procedure :

Steps:

1. Create a S3 bucket.
2. Create a EC2 instance.
3. Give EC2 instance Role to access S3.



(or you may also grant access to your local linux machine using aws configure cmd and entering your IAM user credentials over there)

4. Connect to your EC2 instance CLI.
5. Type “sudo su” to give access root directory.
6. Create a directory “backup”. Type: mkdir backup
7. Go inside the “backup” directory.
8. Make some test files.

Type : touch a

```
The user-provided path /root/backup does not exist.
[root@ip-172-31-0-253 backup]# aws s3 sync /backup s3://automate-upload

The user-provided path /backup does not exist.
[root@ip-172-31-0-253 backup]# aws s3 /backup s3://automate-uploadd
Note: AWS CLI version 2, the latest major version of the AWS CLI, is now stable and recommended for general use. For more information, see the AWS CLI version
2 installation instructions at: https://docs.aws.amazon.com/cli/latest/userguide/install-cliv2.html

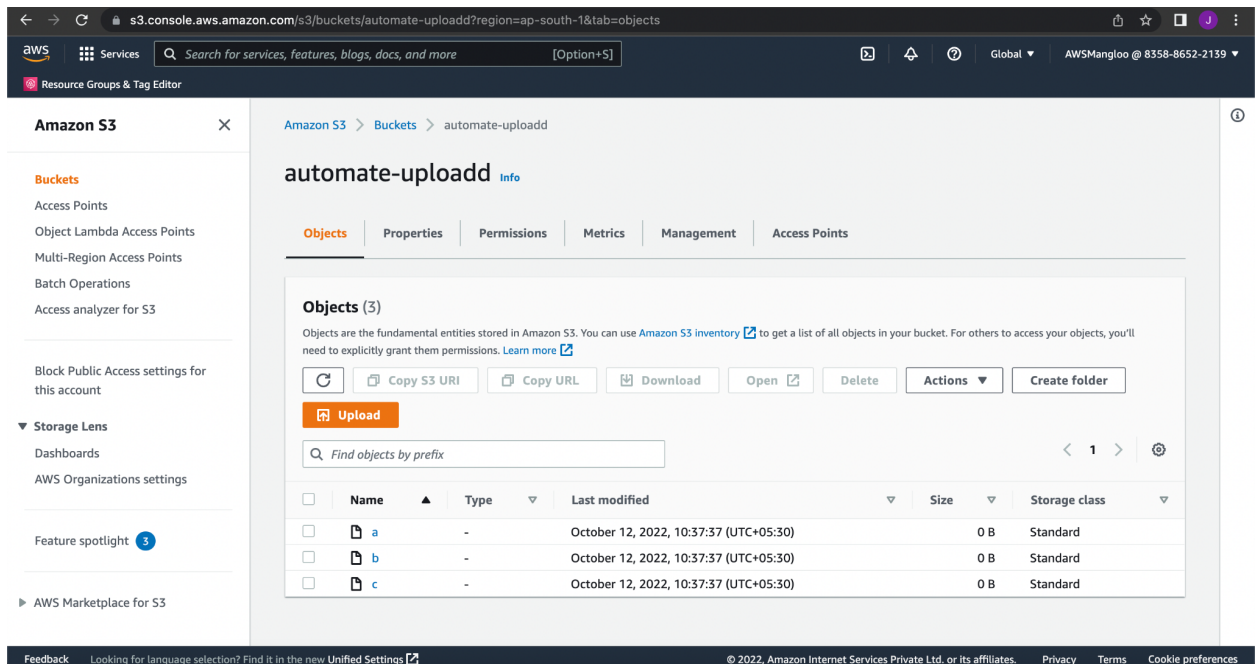
usage: aws [options] <command> [<subcommand> ...] [parameters]
To see help text, you can run:

    aws help
    aws <command> help
    aws <command> <subcommand> help
aws: error: argument subcommand: Invalid choice, valid choices are:

ls                               | website
cp                               | mv
rm                               | sync
mb                               | rb
presign

[root@ip-172-31-0-253 backup]# pwd
/home/ec2-user/backup
[root@ip-172-31-0-253 backup]# aws s3 sync /home/ec2-user/backup s3://automate-uploadd
upload: ./a to s3://automate-uploadd/a
upload: ./c to s3://automate-uploadd/c
upload: ./b to s3://automate-uploadd/b
[root@ip-172-31-0-253 backup]#
```

9. List Them By Cmd-Is



Now to sync these files of backup directory on the S3 bucket. Cmd : `aws s3 sync localfilepath s3://bucketname`

11. Now, we are going to create a cron job in order to automate this process. Cmd : `crontab -e`

Enter the cmd : cron code `aws s3 sync /directory s3://bucketname`

For e.g. : cron code for 1 min is `* * * * *`

(you may use crontab.guru to create your own job expression) URL : <https://crontab.guru/>

```

usage: aws [options] <command> <subcommand> [<subcommand> ...] [parameters]
To see help text, you can run:

    aws help
    aws <command> help
    aws <command> <subcommand> help
aws: error: argument subcommand: Invalid choice, valid choices are:

ls                               | website
cp                               | mv
rm                               | sync
mb                               | rb
presign

[root@ip-172-31-0-253 backup]# pwd
/home/ec2-user/backup
[root@ip-172-31-0-253 backup]# aws s3 sync /home/ec2-user/backup s3://automate-uploadd
upload: ./a to s3://automate-uploadd/a
upload: ./c to s3://automate-uploadd/c
upload: ./b to s3://automate-uploadd/b
[root@ip-172-31-0-253 backup]# crontab -e
no crontab for root - using an empty one

[1]+  Stopped                  crontab -e
[root@ip-172-31-0-253 backup]# cron code aws s3 sync /home/ec2-user/backup s3://automate-uploadd
bash: cron: command not found
[root@ip-172-31-0-253 backup]# cron code aws s3 sync /backup s3://automate-uploadd
bash: cron: command not found
[root@ip-172-31-0-253 backup]#

```

Restart the Crond service

Run “systemctl restart/stop/start cornd.service” to restart/stop/start your cron jobs respectively.

13.Now, we are going to create some test files to check if they are uploaded every minute or not.

14.File d and file e have been updated.

aws

Services

Search for services, features, blogs, docs, and more

[Option+S]

Global

AWSMangloo @ 8358-8652-2139

Resource Groups & Tag Editor

Amazon S3

Buckets

Access Points

Object Lambda Access Points

Multi-Region Access Points

Batch Operations

Access analyzer for S3

Block Public Access settings for this account

Storage Lens

Dashboards

AWS Organizations settings

Feature spotlight

AWS Marketplace for S3

automate-upload

Info

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (6)

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 >

| | Name | Type | Last modified | Size | Storage class |
|--------------------------|------|------|--|------|---------------|
| <input type="checkbox"/> | 3 | - | October 12, 2022, 10:52:03 (UTC+05:30) | 0 B | Standard |
| <input type="checkbox"/> | a | - | October 12, 2022, 10:37:37 (UTC+05:30) | 0 B | Standard |
| <input type="checkbox"/> | b | - | October 12, 2022, 10:37:37 (UTC+05:30) | 0 B | Standard |
| <input type="checkbox"/> | c | - | October 12, 2022, 10:52:03 (UTC+05:30) | 0 B | Standard |
| <input type="checkbox"/> | d | - | October 12, 2022, 10:52:03 (UTC+05:30) | 0 B | Standard |
| <input type="checkbox"/> | e | - | October 12, 2022, 10:52:03 (UTC+05:30) | 0 B | Standard |

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Result: We have successfully automated our local files/directory backup on Amazon S3 buckets using crontab.