Project title: Data backup assistant

Step 1: Creating a snapshot of one server and retriving in another server

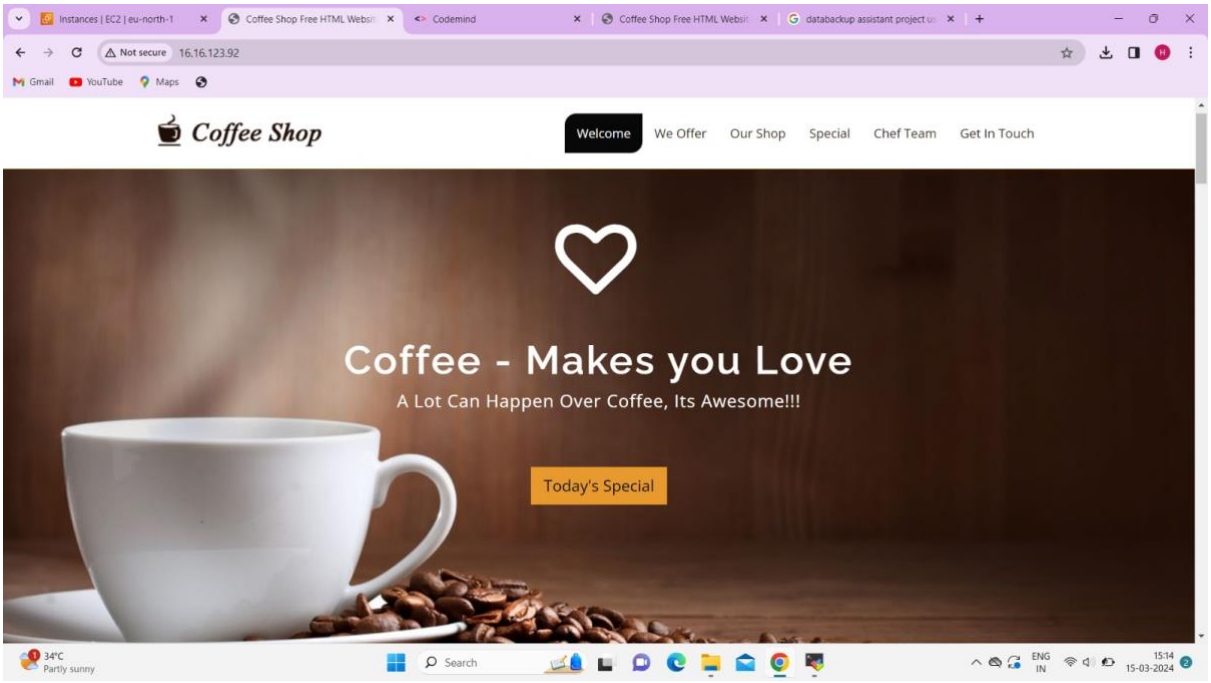
1.launch an ubuntu instance1

-Connect through mobaxterm by using ip address(public) of instance1

-Commands to launch a static website as follows:

```
Last login: Fri Mar 15 08:47:17 2024 from 157.48.142.165
ubuntu@ip-172-31-3-198:~$ sudo su
root@ip-172-31-3-198:/home/ubuntu# apt-get update -y
Hit:1 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:3 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1462 kB]
Get:6 http://eu-north-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1057 kB]
Fetched 2748 kB in 1s (2904 kB/s)
Reading package lists... Done
root@ip-172-31-3-198:/home/ubuntu# apt-get install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.52-1ubuntu4.8).
0 upgraded, 0 newly installed, 0 to remove and 44 not upgraded.
root@ip-172-31-3-198:/home/ubuntu# systemctl start apache2
root@ip-172-31-3-198:/home/ubuntu#
```

2.launch a static website in instance1 using ip address



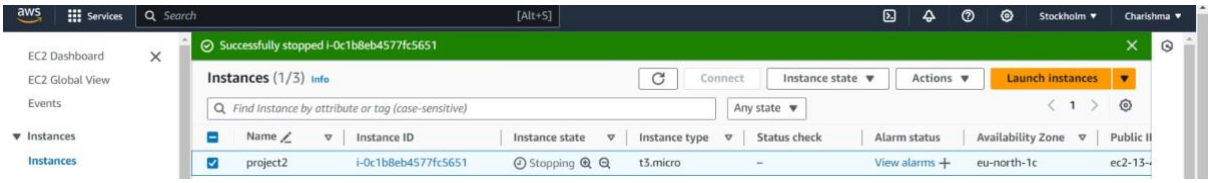
3.Create a snapshot for instance1

- Select instance1 volume for creation of snapshot.

4.launch another ubuntu instance2

-detach the default volume of instance2

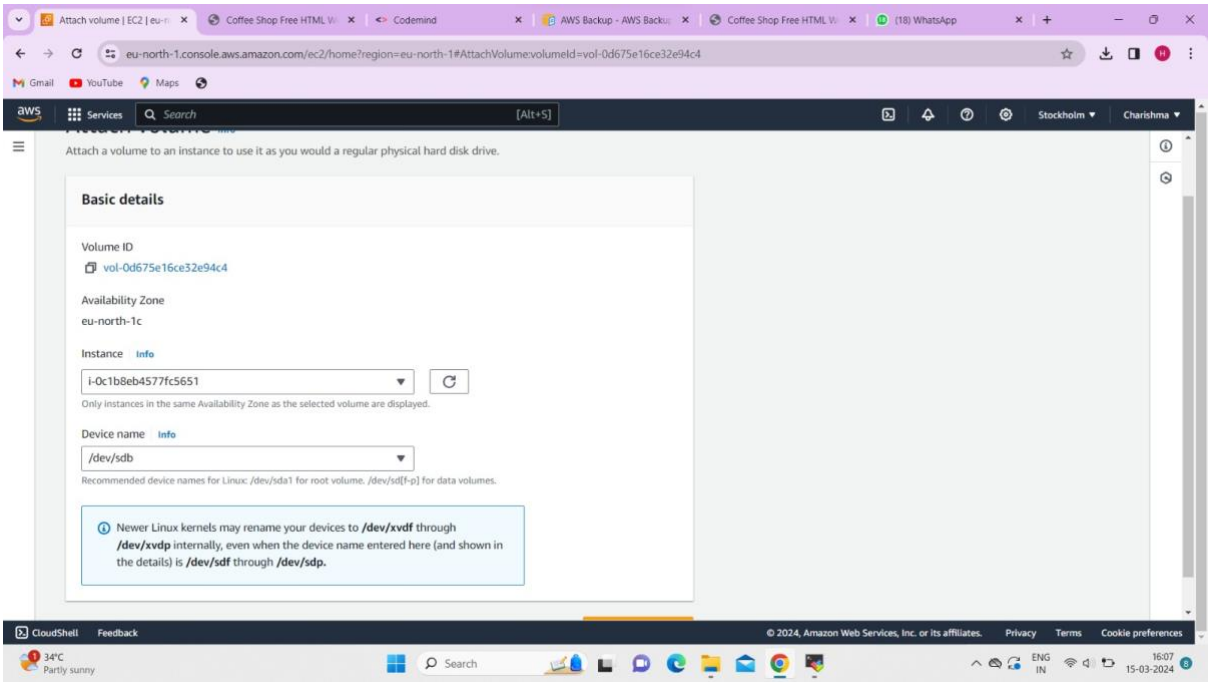
- stop the instance2 for a while to detach the volume.



5.Now make the snapshot as a volume to attach to instance2

-Note: make sure all are in same availability zone

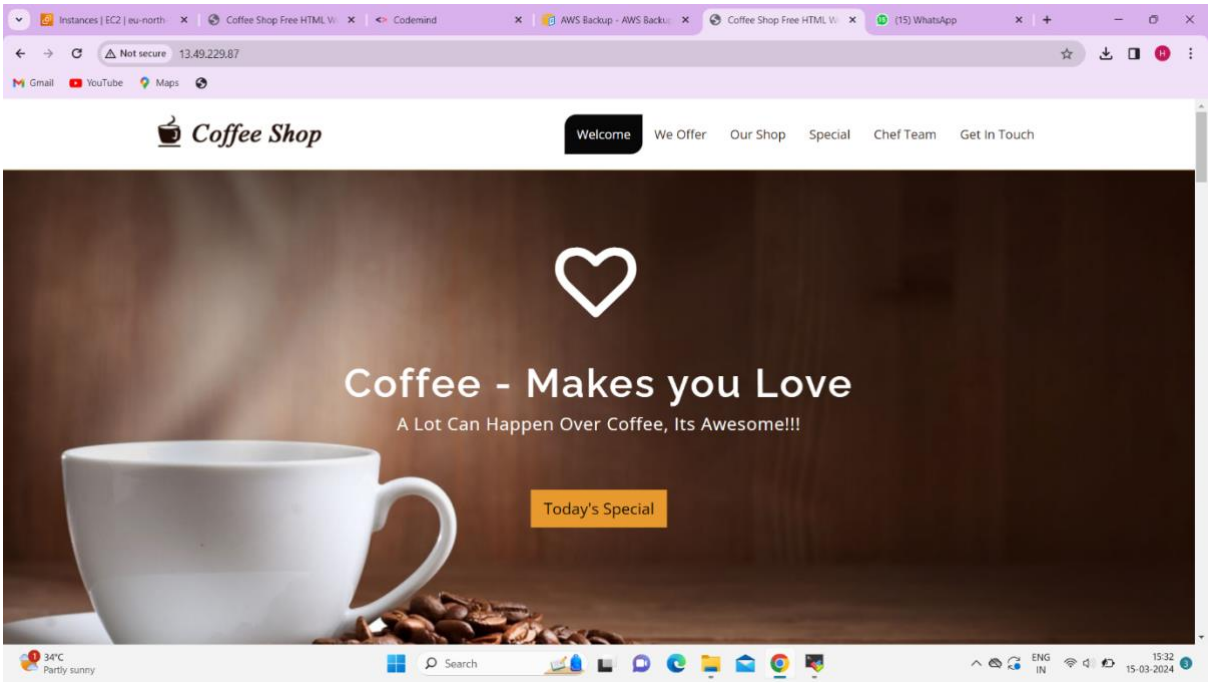
6.Attach the created volume from the instance1 to instance 2



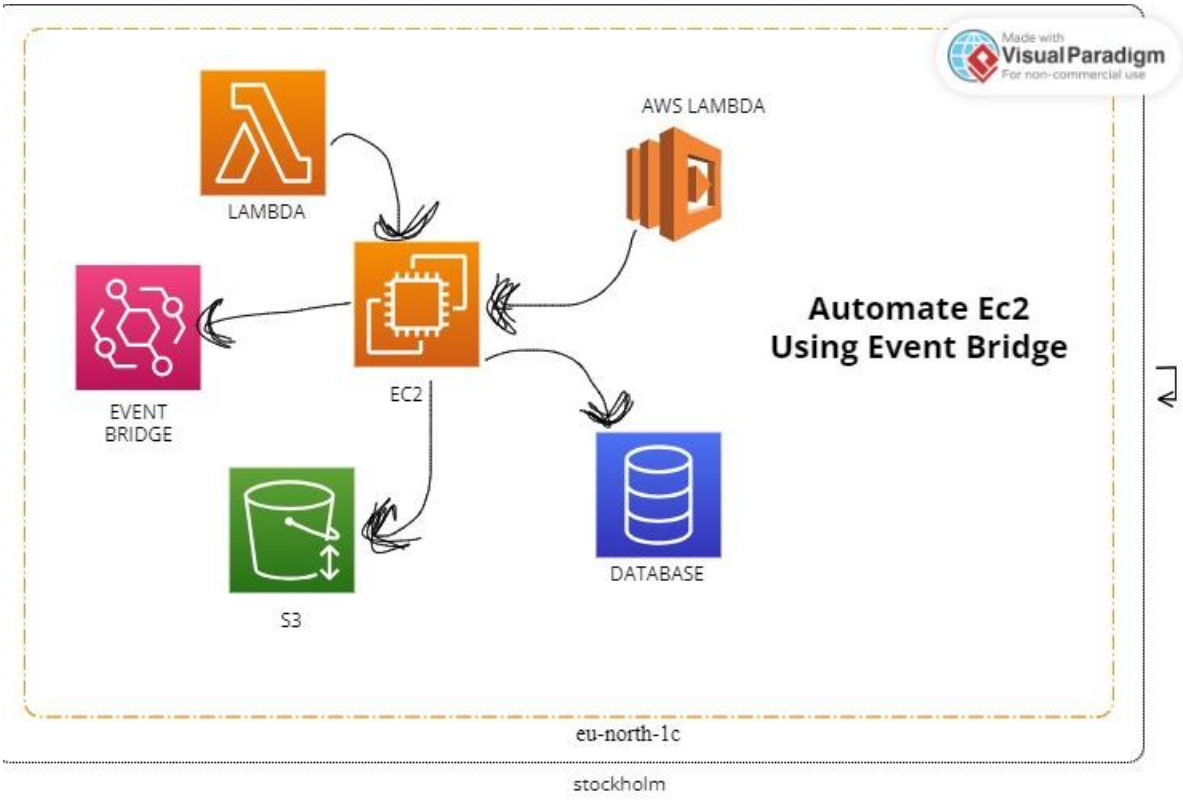
7.Start the instance2 (make it available)

-It gives an error to make a device name as it specified to attach a volume

8.Check the instance2 is it successfully launched the website or not.

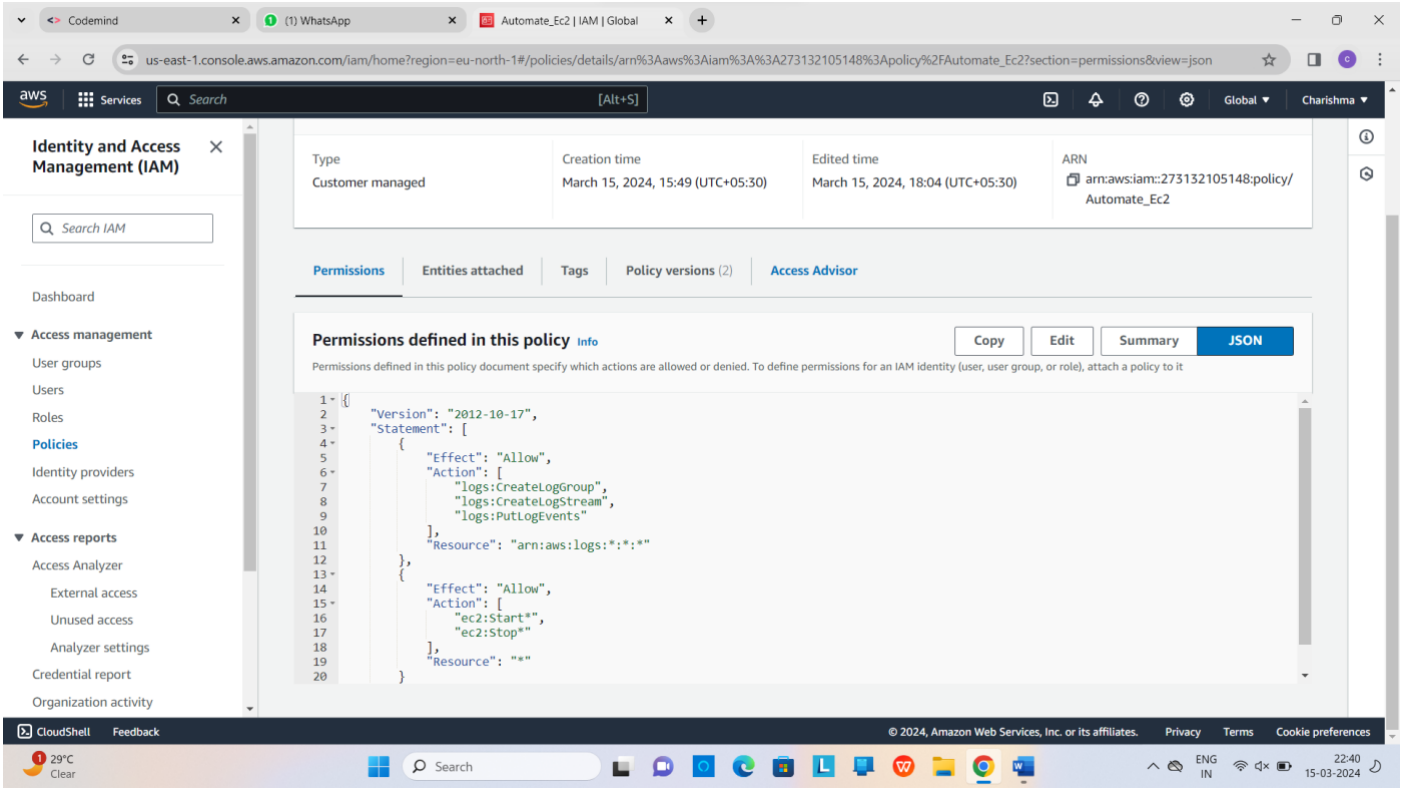


Step2: Automate the instances to start and stop at a particular time period



1.create a IAM policy

- json code as follows:



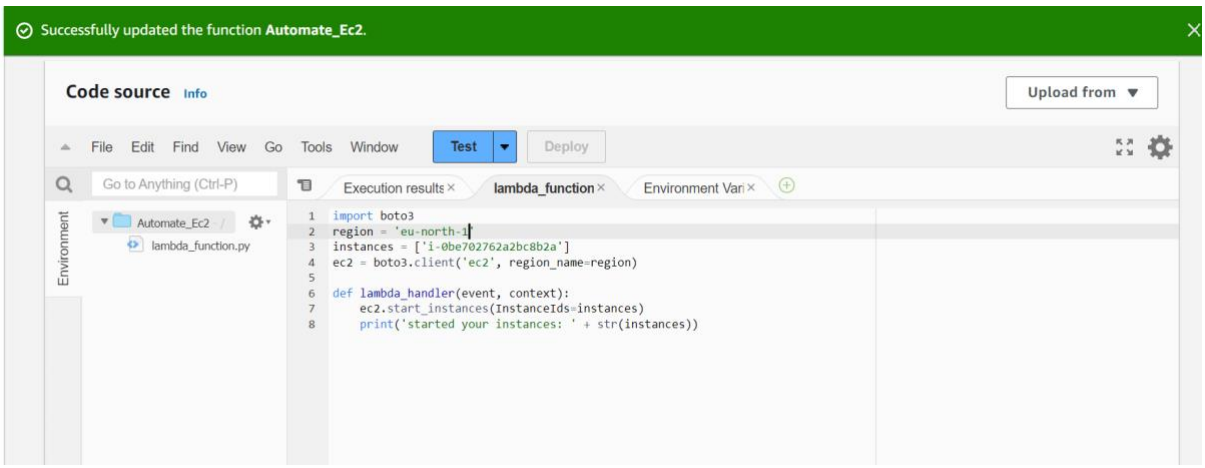
2.create role

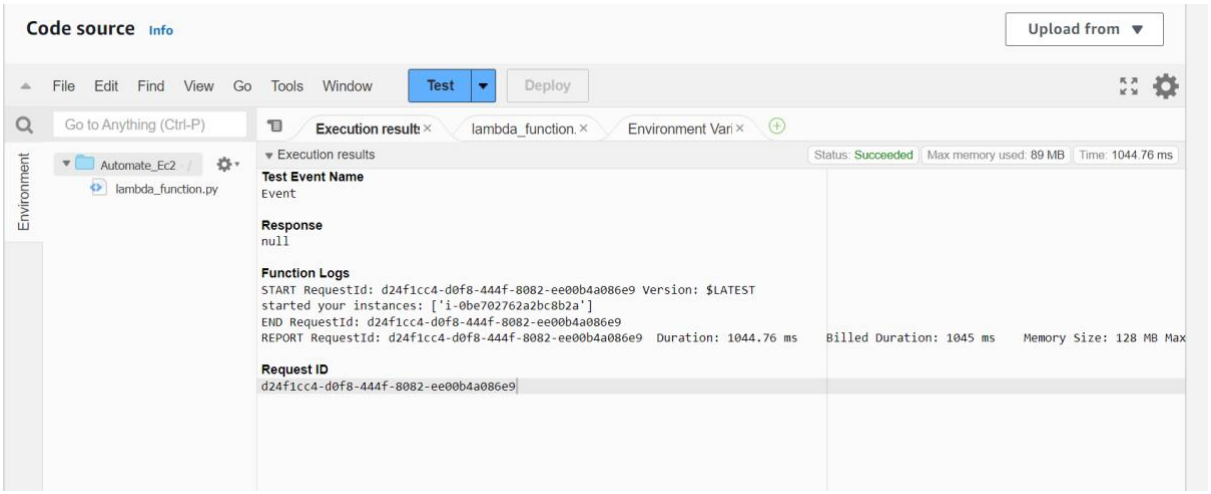
-policy attached to our created role

-role is created because we need permissions to access lambda functions

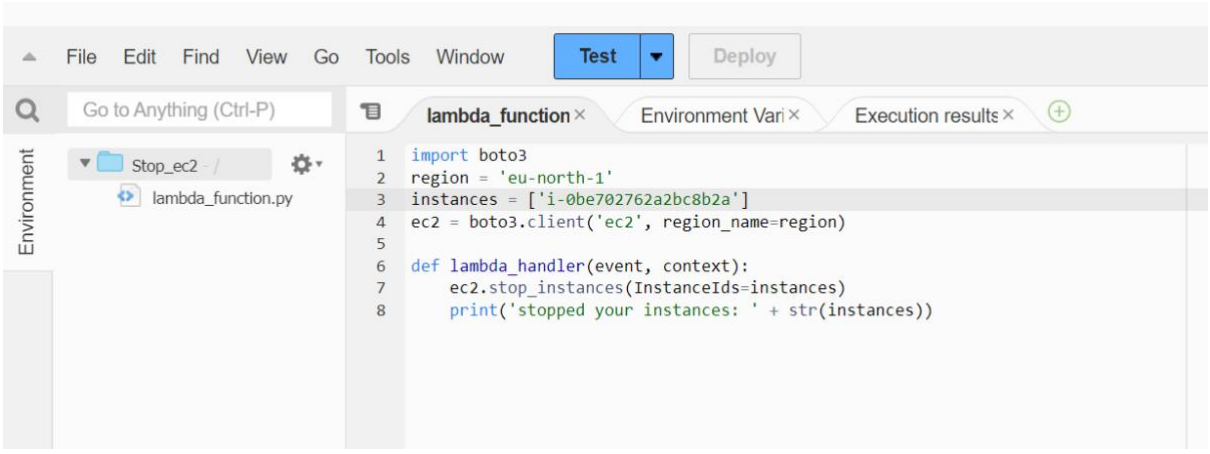
3.We use lambda to create functions as start and stop for the instances

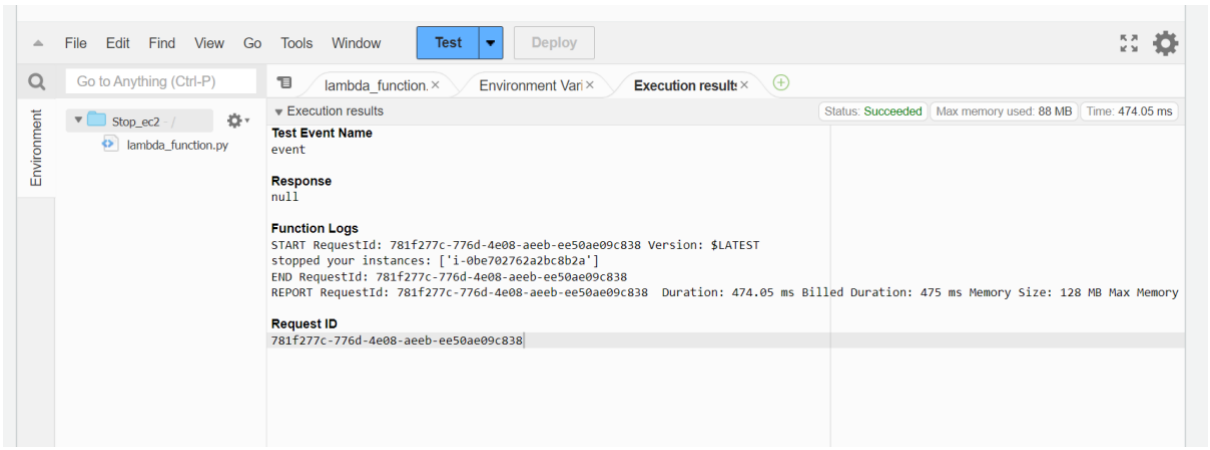
1.start function



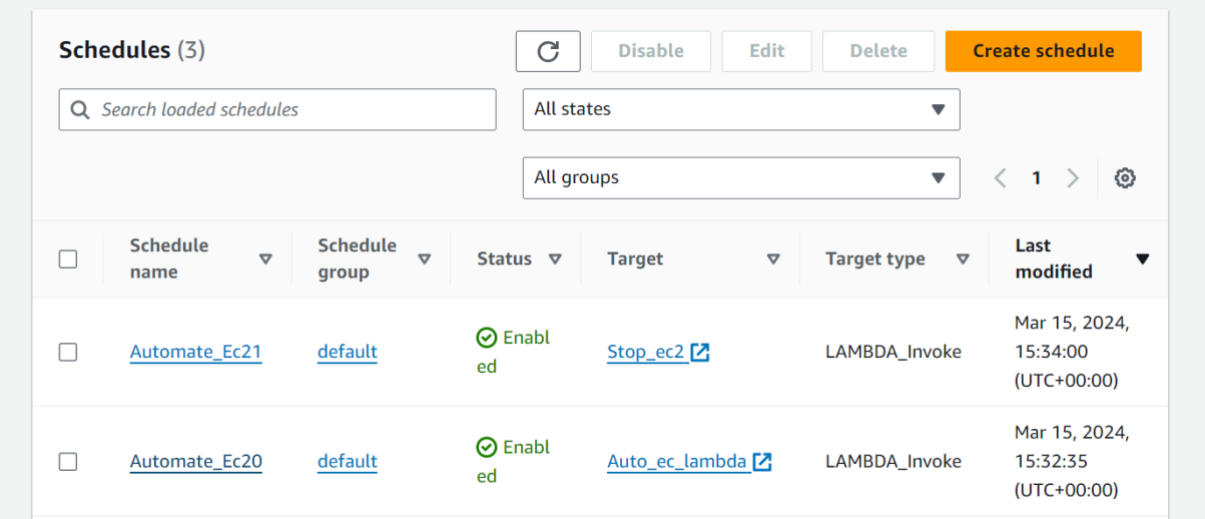


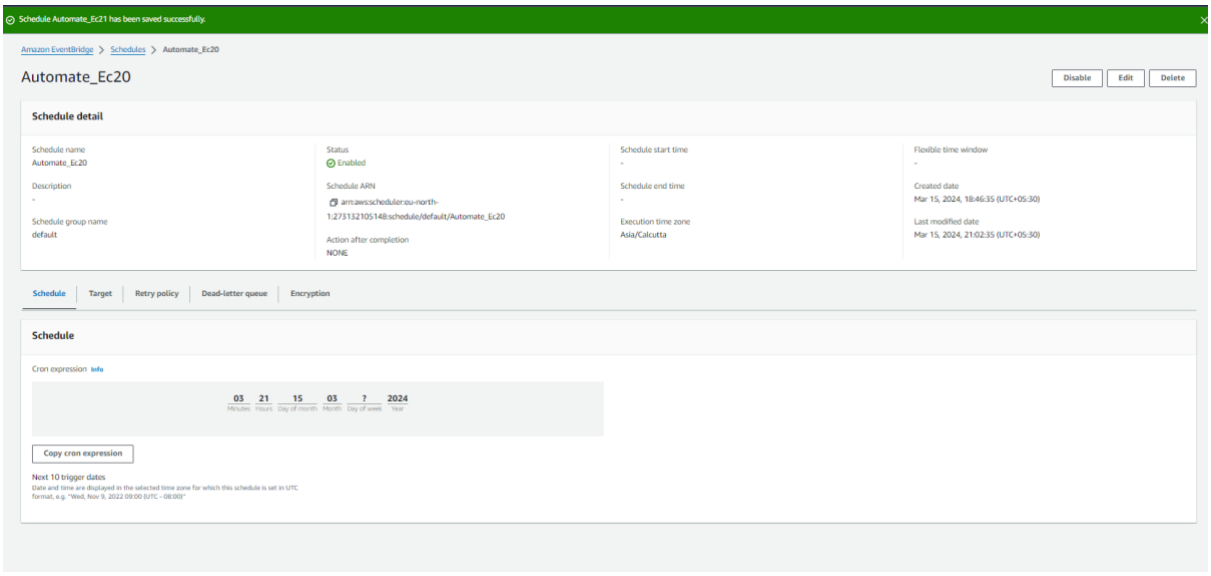
2.stop function

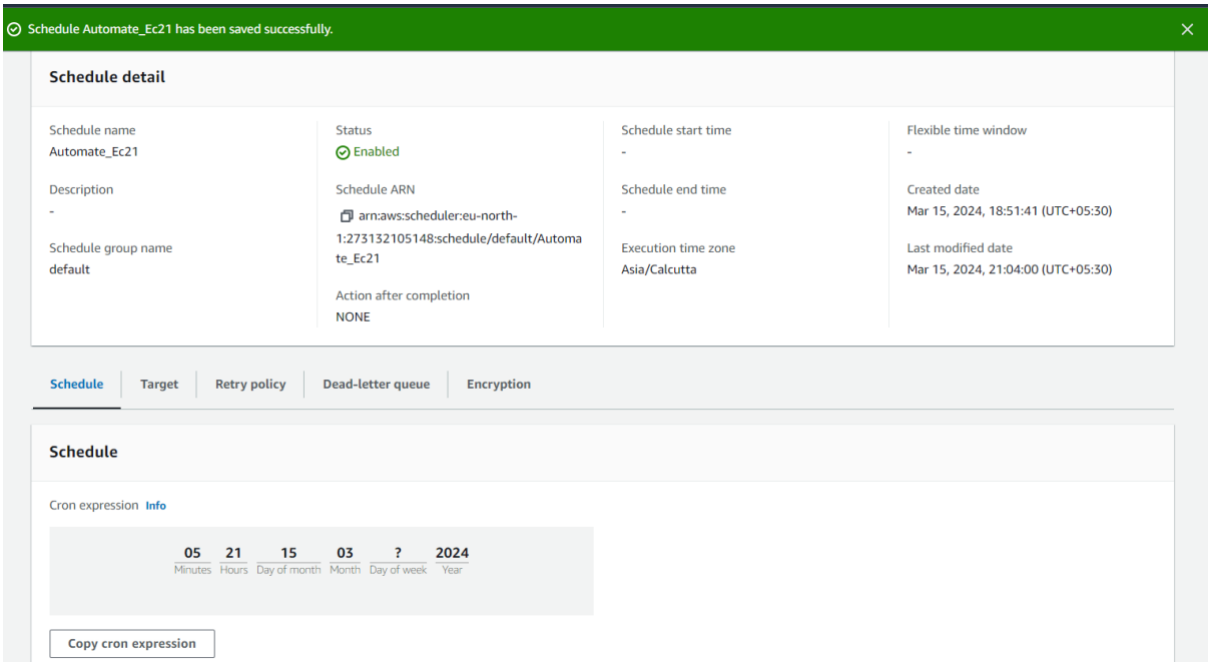




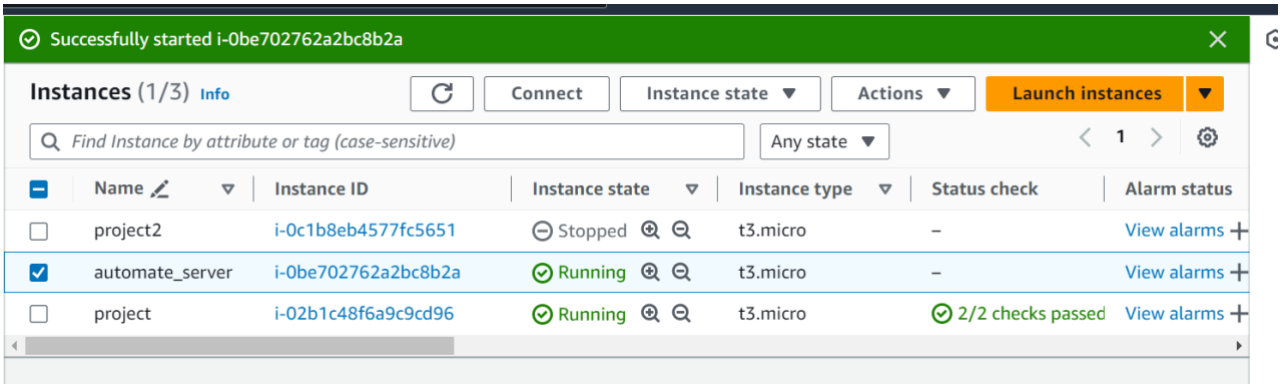
4.create schedules for the functions what we are created (Amazon event bridge)

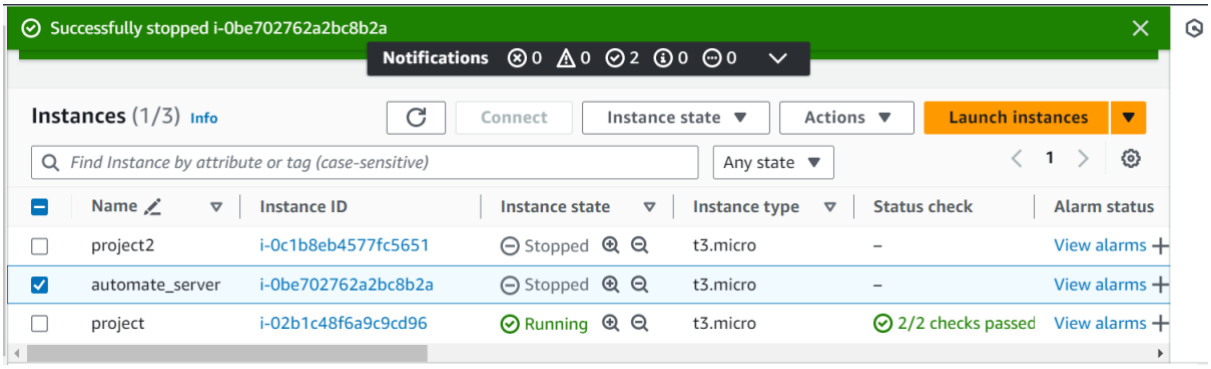






5.The instance are automated as per the schedule

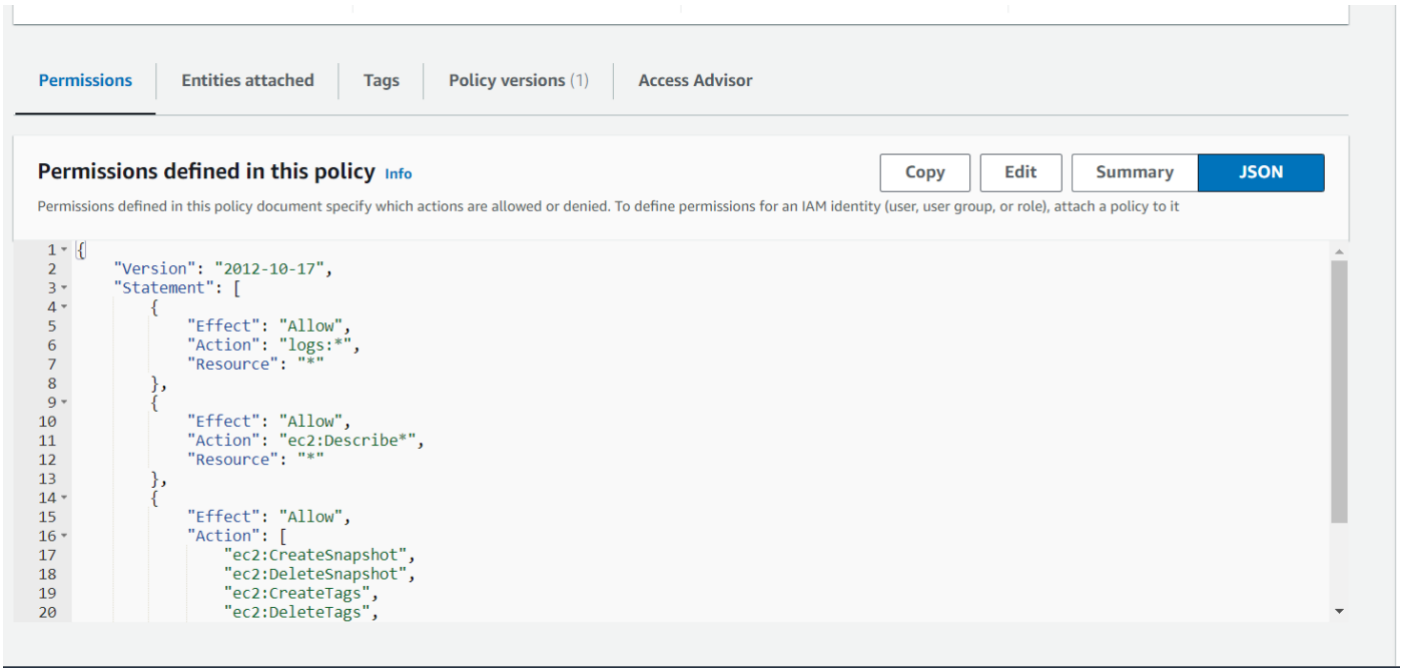




Step 3: Automate snapshot creation for instances

1.create a IAM policy

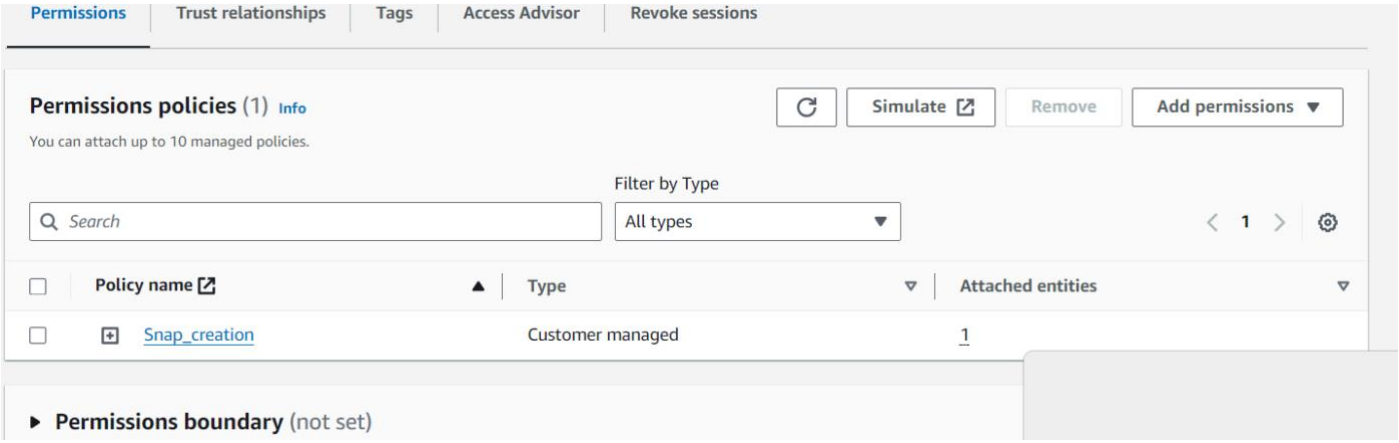
-Json code as follows:



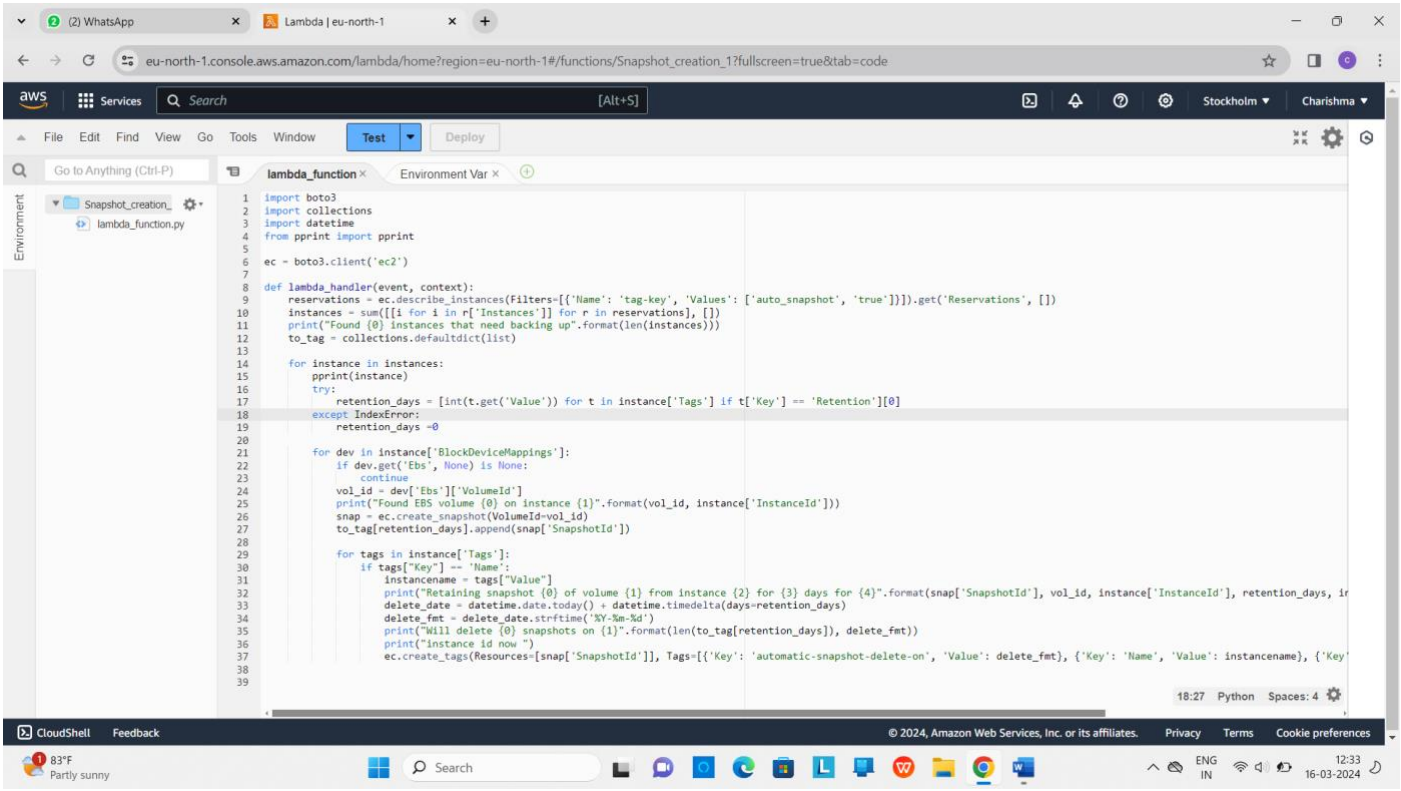
2.create role

-policy attached to our created role

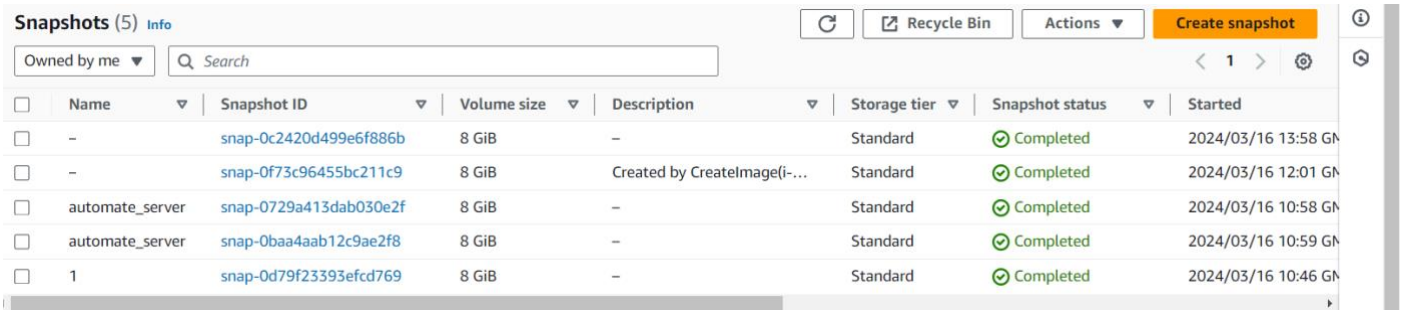
-role is created because we need permissions to access lambda function



3.lambda function for snapshot creation



-give the instance tag in code

4.Schedule to create snapshot for instances (cron expression)

5.As per the schedule it creates snapshot for instances