Amazon Web Services

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Launching EC2 and replication of AMI in other region.

INTRODUCTION

AWS provides cloud computing platforms and API's to individuals and companies on pay-as-you-go basis.

It offers reliable, scalable and inexpensive cloud services.

INSTANCES

An instance is a virtual server in AWS cloud. Through EC2, we can set up and configure the OS & applications that run on your instance.

AMAZON EBS

It is an Amazon Elastic Block Store (Amazon EBS) is an easy-to-use, scalable, high-performance block-storage service designed for Amazon Elastic Compute Cloud (Amazon EC2).

AMAZON EFS

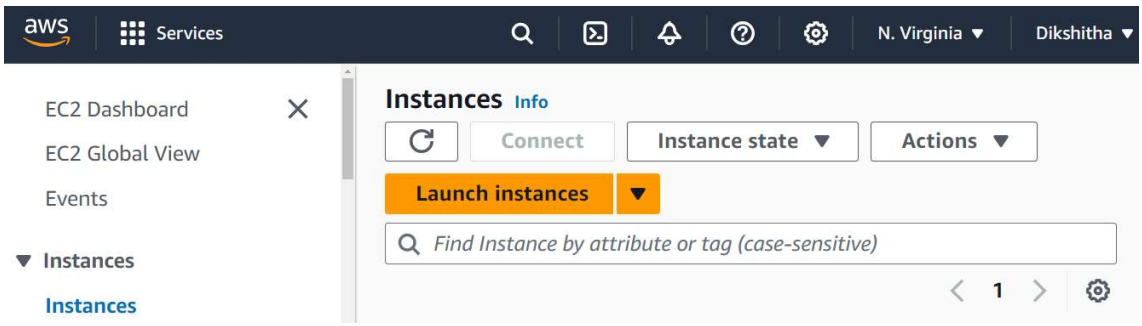
Amazon Elastic File System (Amazon EFS) provides serverless, fully elastic file storage so that you can share file data without provisioning or managing storage capacity and performance.

TASK GIVEN

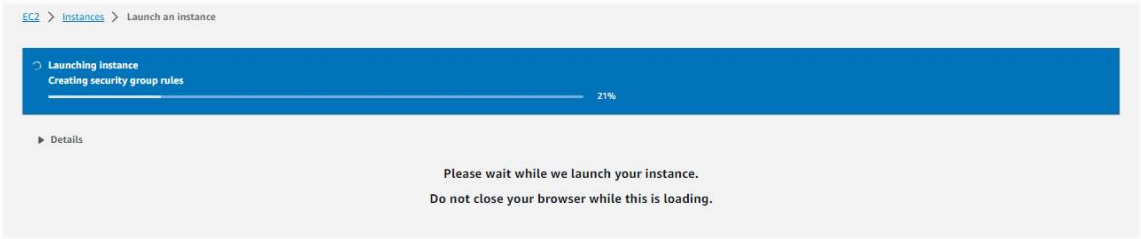
You work for XYZ Corporation. Your corporation is working on an application and they require secured web servers on Linux to launch the application.
Tasks To Be Performed:
1. Create an instance in the US-East-1 (N. Virginia) region with Linux OS and manage the requirement of web servers of your company using AMI.
2. Replicate the instance in the US-West-2 (Oregon) region.
3. Build two EBS volumes and attach them to the instance in the US-East-1 (N. Virginia) region.
4. Delete one volume after detaching it and extend the size of the other volume.
5. Take backup of this EBS volume

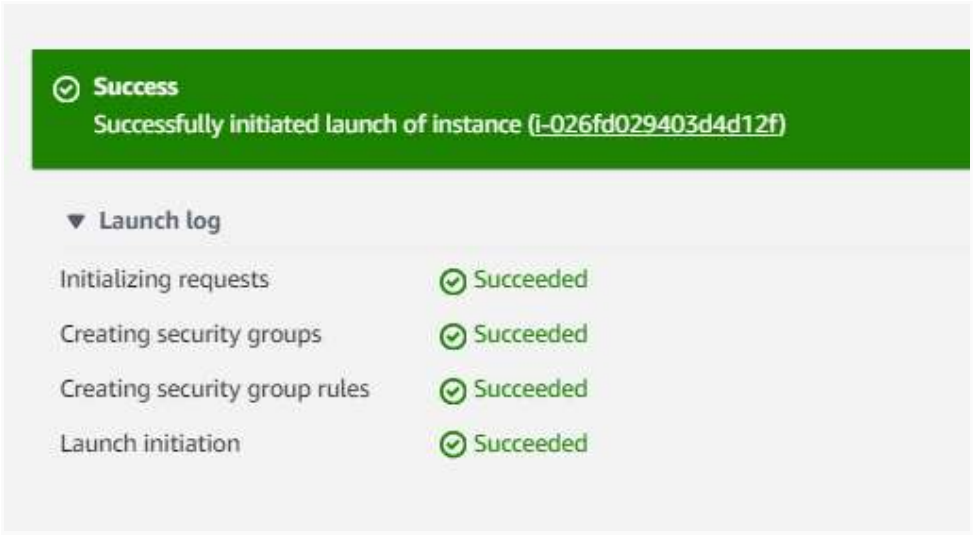
1. Create an instance in the US-East-1 (N. Virginia) region with Linux OS and manage the requirement of web servers of your company using AMI.

- Navigate to EC2 service and select launch instances.



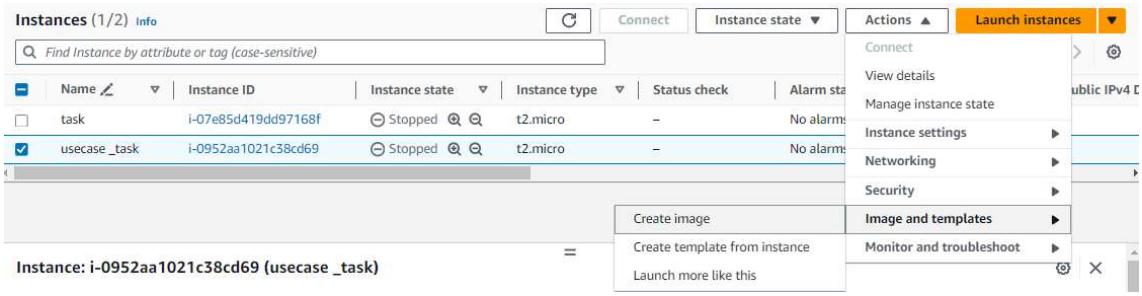
- Give a name to your instance then select the AMI as Linux and configure the details like instance type,key pair, network settings, storage, security groups.
- Review and launch the instance.



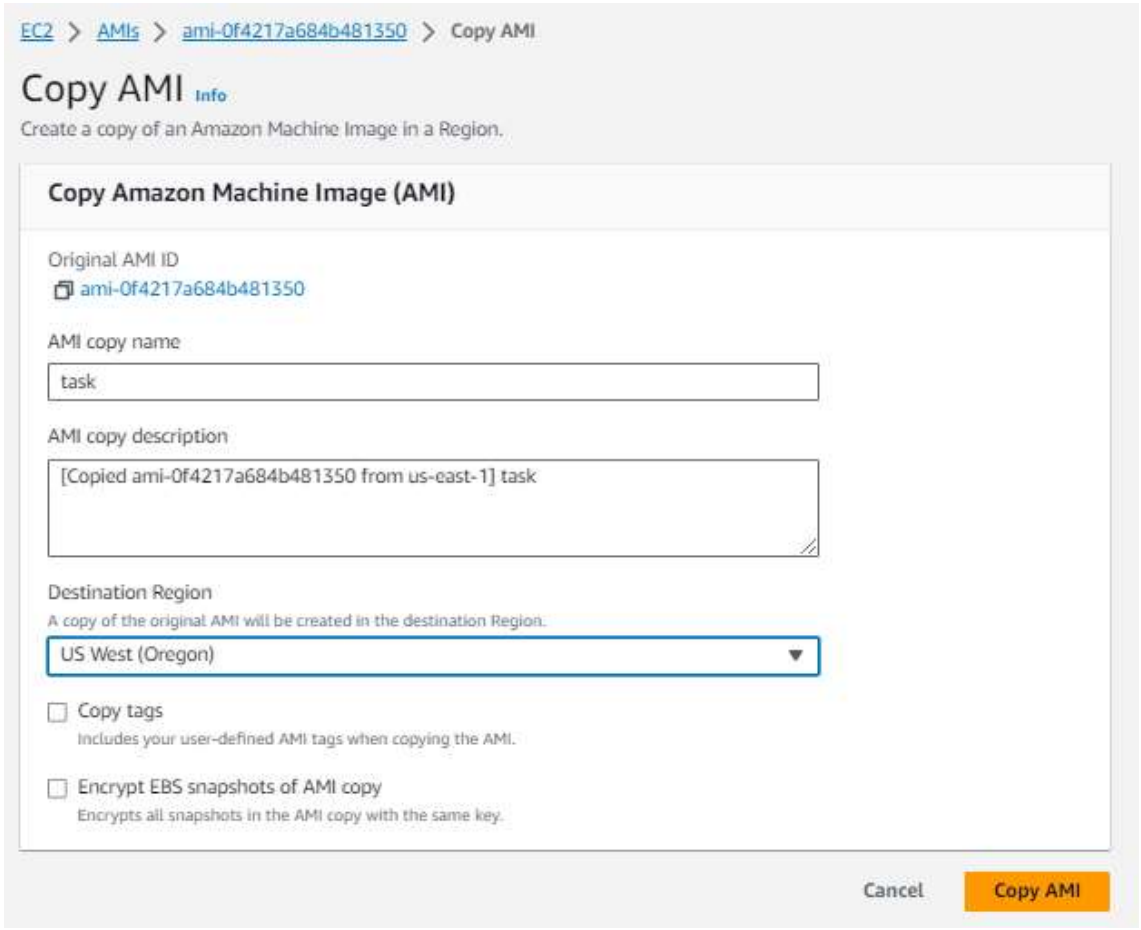


2. Replicate the instance in the US-West-2 (Oregon) region.

- Stop the instance to ensure data consistency
- In the EC2 dashboard, select your instance and choose "Actions" > "Image" > "Create Image." This will create an AMI of the instance.



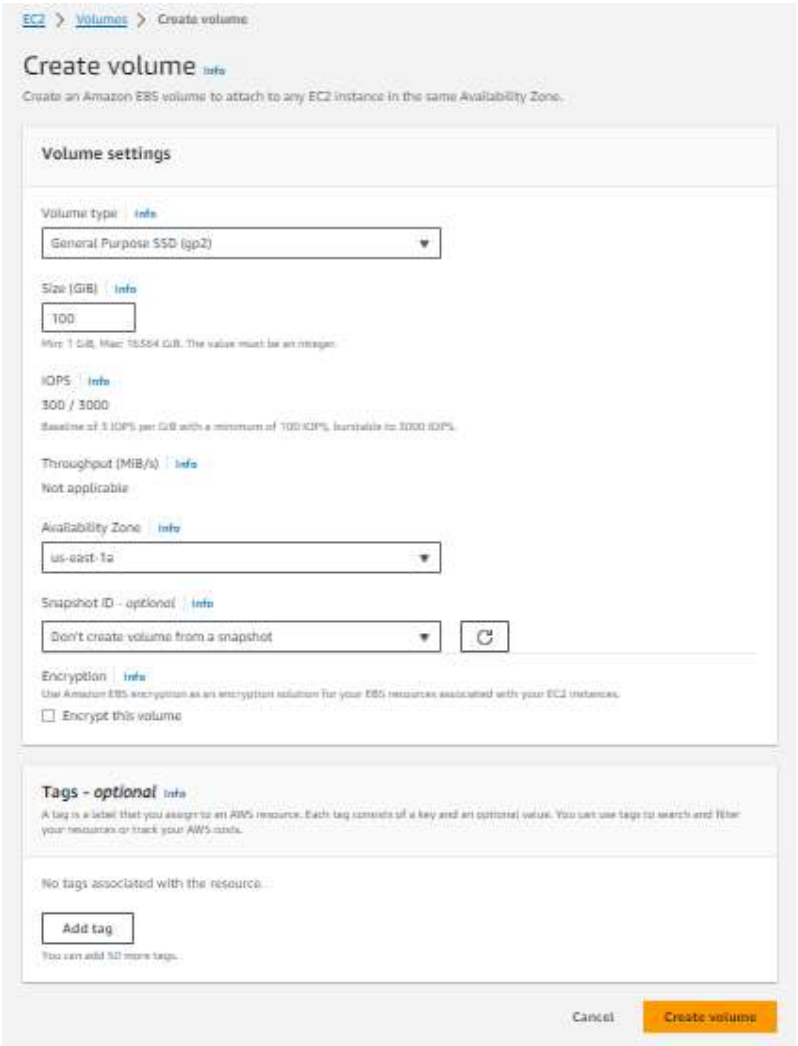
- Then redirect to AMI's section and Choose "Actions" > "Copy AMI" to copy the AMI to the US-West-2 (Oregon) region.



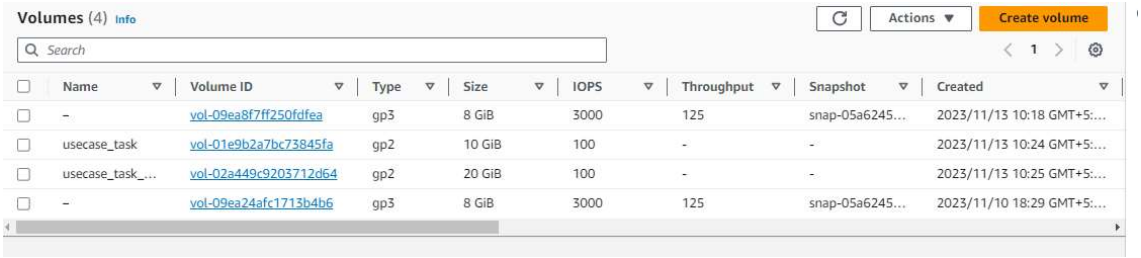
- After the AMI is copied, we can launch a new instance in the US-West-2 (oregon)region using this copied AMI.

3. Build two EBS volumes and attach them to the instance in the US-East-1 (N. Virginia) region.

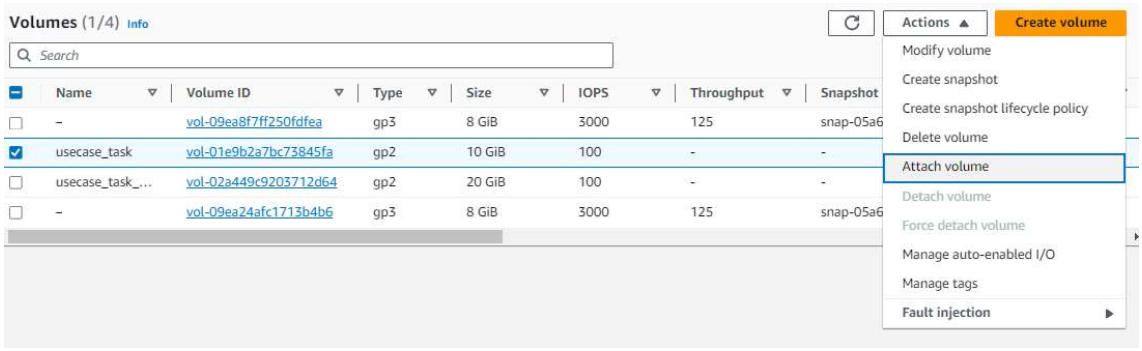
- In the EC2 dashboard, go to "Elastic Block Store" > "Volumes."
- Click "Create Volume" to create the first EBS volume. Specify the size and other options as needed.
- We can follow the same process for the second EBS too.



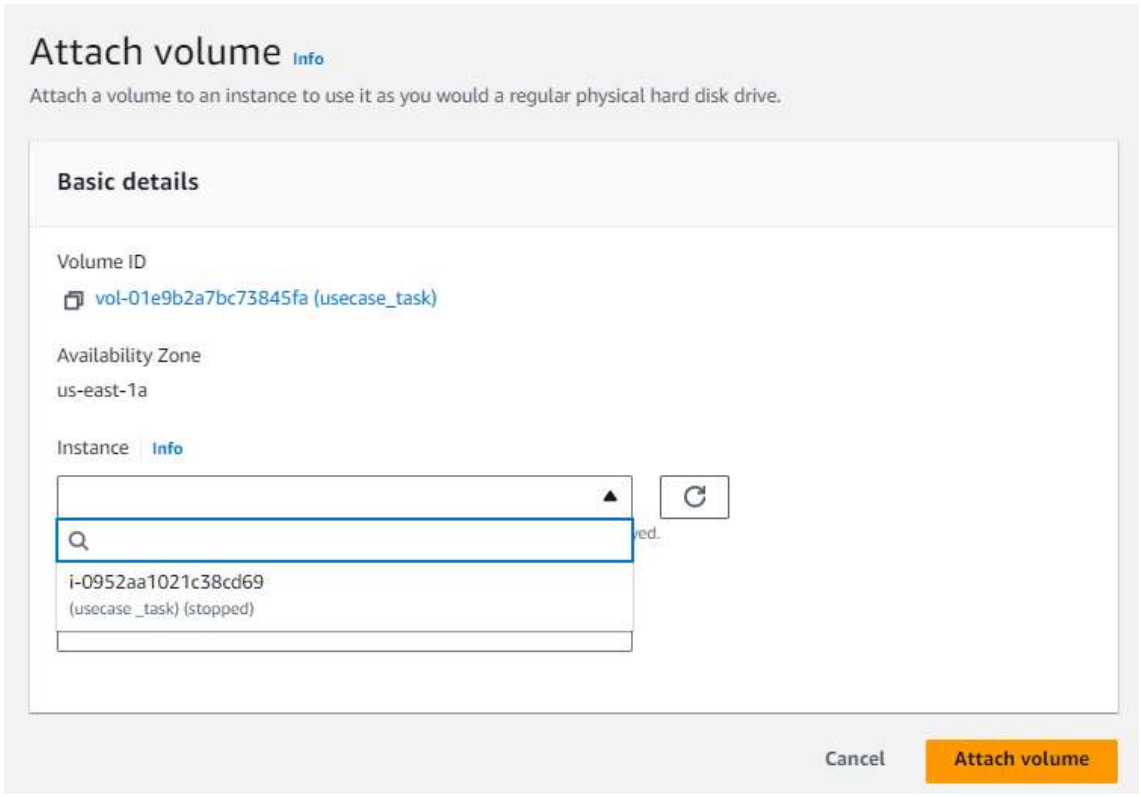
- I have created two volumes.



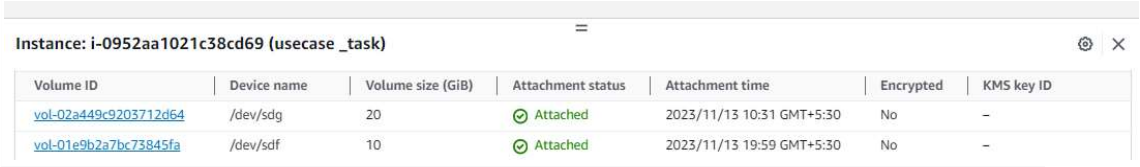
- After creating the volumes, select your volume, and choose "Actions" > "Attach Volume."



- Then select the instance to which we want to attach.

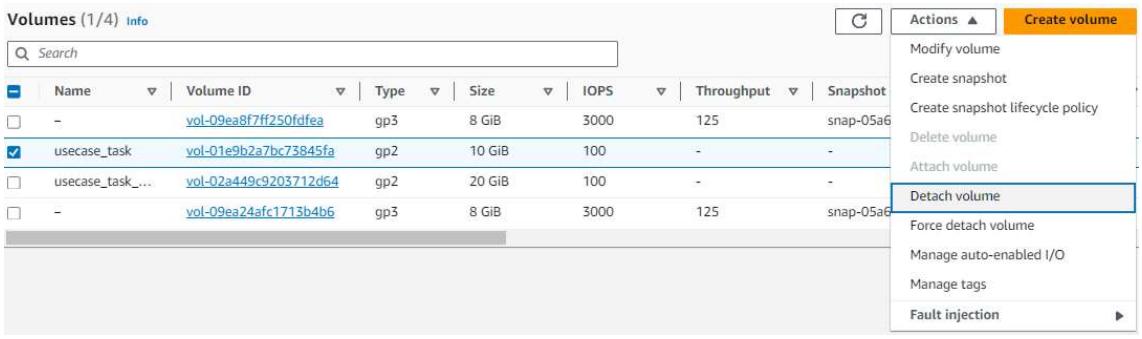


- In the same way attach the second volume too.
- The below are the connected volume to the created instance.

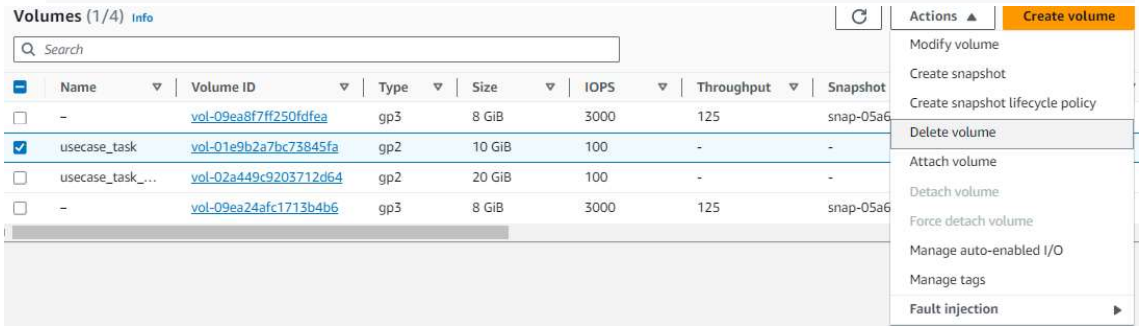


4. Delete one volume after detaching it and extend the size of the other volume.

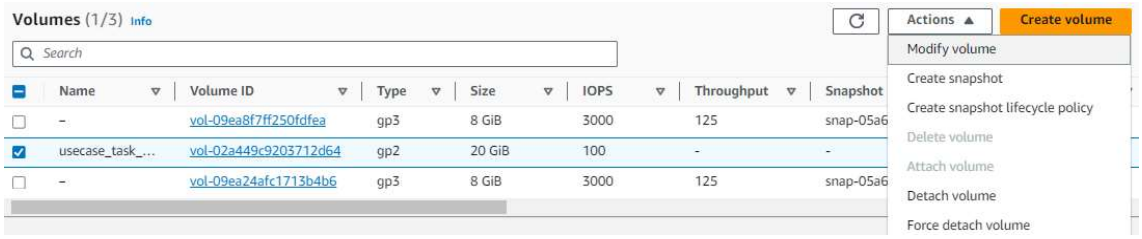
- Select the EBS volume you want to delete and choose "Actions" > "Detach Volume."

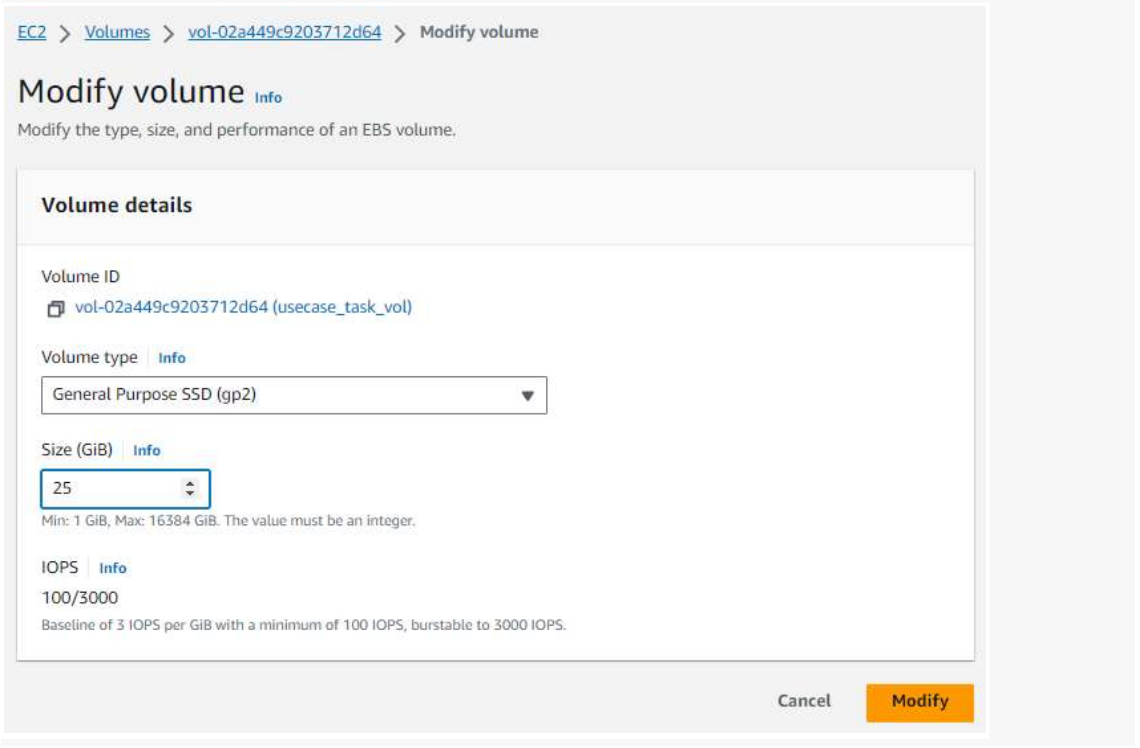


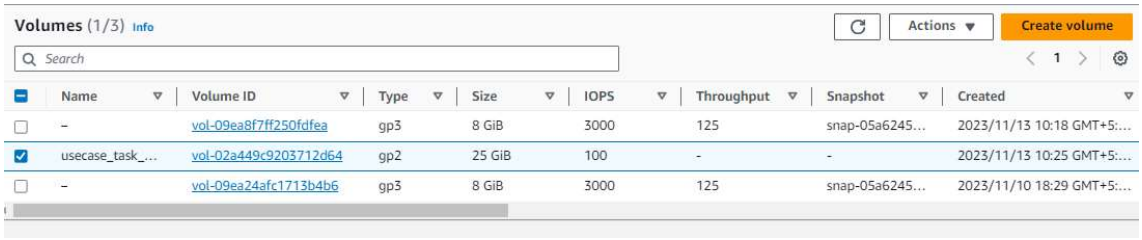
- After detaching the volume, select it again and choose "Actions" > "Delete Volume."



- To extend the size of the other volume, select the volume you want to resize and choose "Actions" > "Modify Volume."



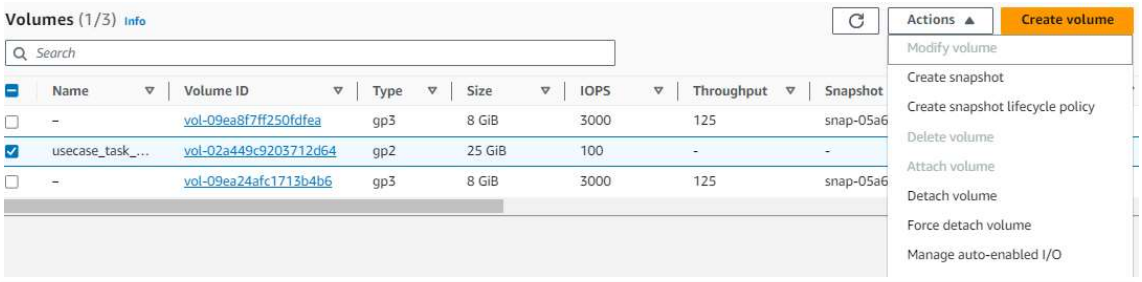




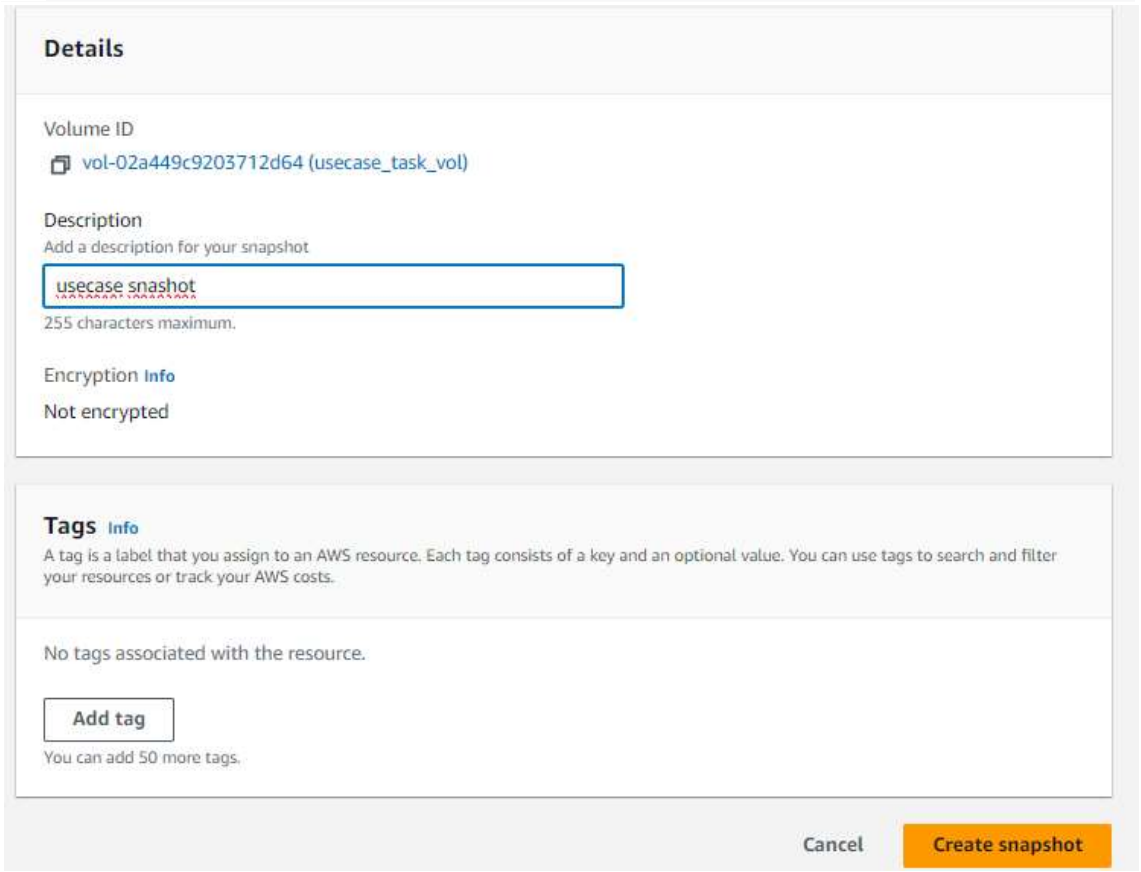
Volume modified.

5. Take backup of this EBS volume

- Select the EBS volume you want to back up.
- Choose "Actions" > "Create Snapshot."



- Specify a description for the snapshot and create it.



CONCLUSION:

Launched an instance and created a replica of that instance in another region. Created two volumes and attached them to the instance of the first region & took a backup of a volume.