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Module: EBS.EFS.S3

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ASSIGNMENT - 1

CASE STUDY

1) Create a S3 bucket and enable cross region replication for any two buckets in different region?

Cross region replication:

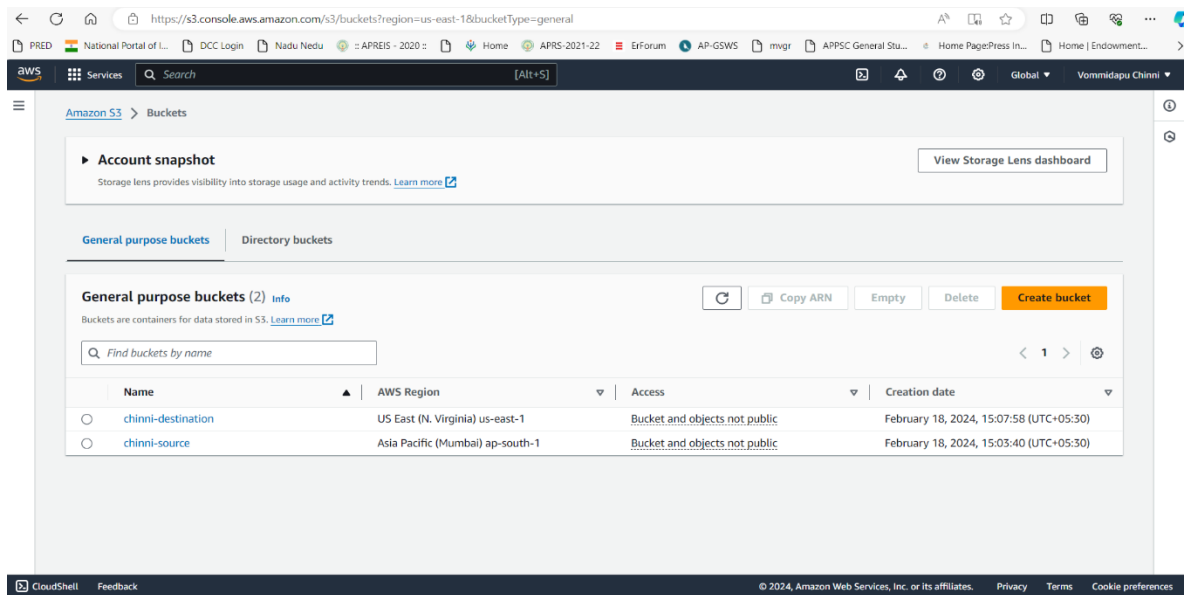
- It's a feature that replicates the data from one bucket to another bucket.
- Create a cross region replication rule for CRR.
- The CRR replication will happen when we created the CRR rule.
- Versioning is mandatory for CRR.

To create a S3 bucket and enable cross region replication for any two buckets in different regions, we need to follow several steps:

1. Create S3 Bucket: First, we need to create two S3 buckets, one bucket in Virginia (source bucket) and another bucket in Mumbai (destination bucket).
2. Enable Versioning: Enable bucket versioning for both two buckets to replicate the object versions.
3. Create Replication Rule: Create replication rules in source to specify what data gets replicated and to the destination. Monitor the replication status to ensure it's working or not.

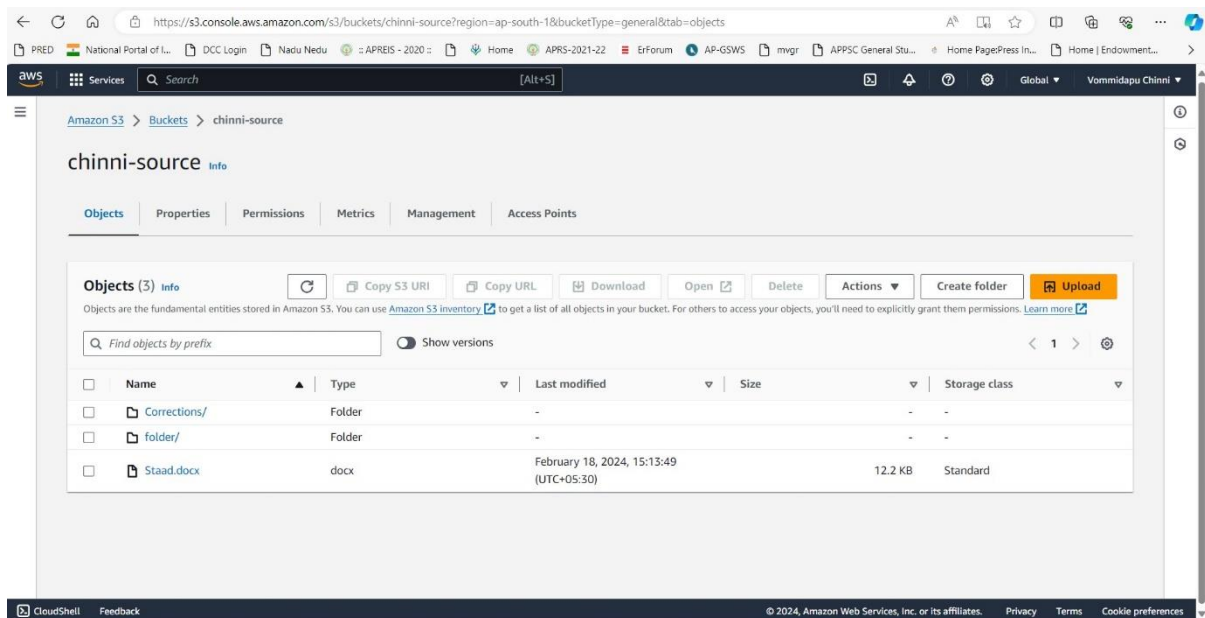
Step1: Create S3 Buckets

1. Go to the AWS Management Console and login. Search for S3 service and open it.
2. Click on "Create bucket". Give region in Mumbai for source bucket. Enable Bucket versioning. Create bucket. (chinni-source)
3. Click on "Create bucket". Give region in Virginia for destination bucket. Enable Bucket versioning. Create bucket. (chinni-destination)

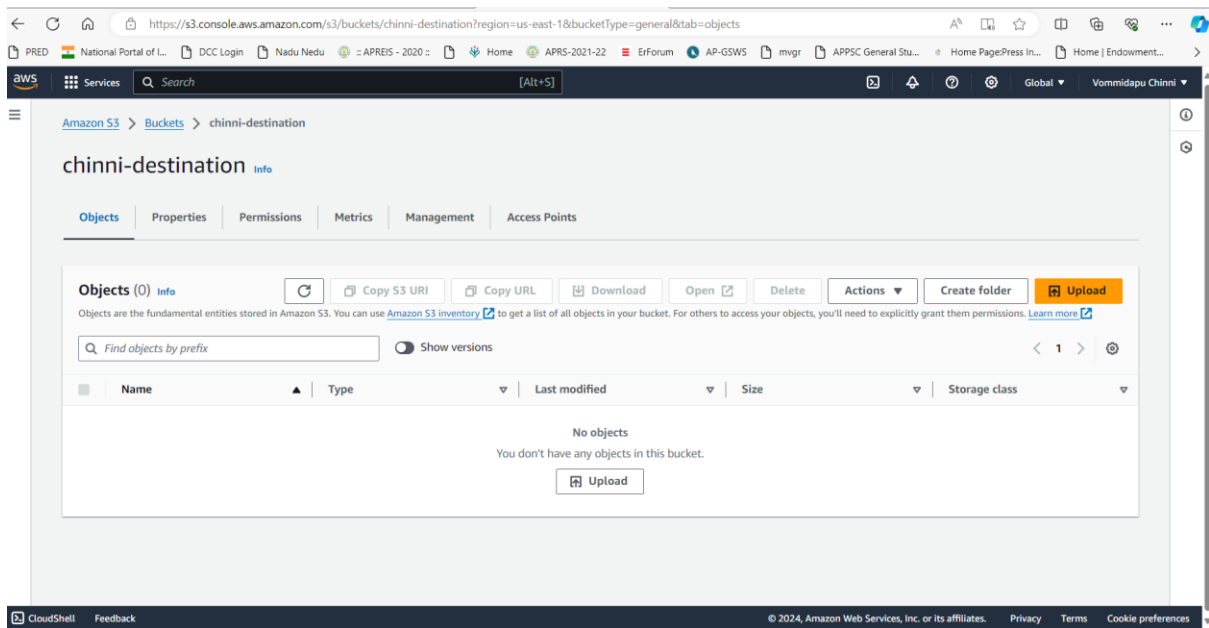


- Open the source bucket. Now click on create folder, create a new folder and save it. Now upload one file and one folder by clicking upload.

❖ Source bucket (in Mumbai):



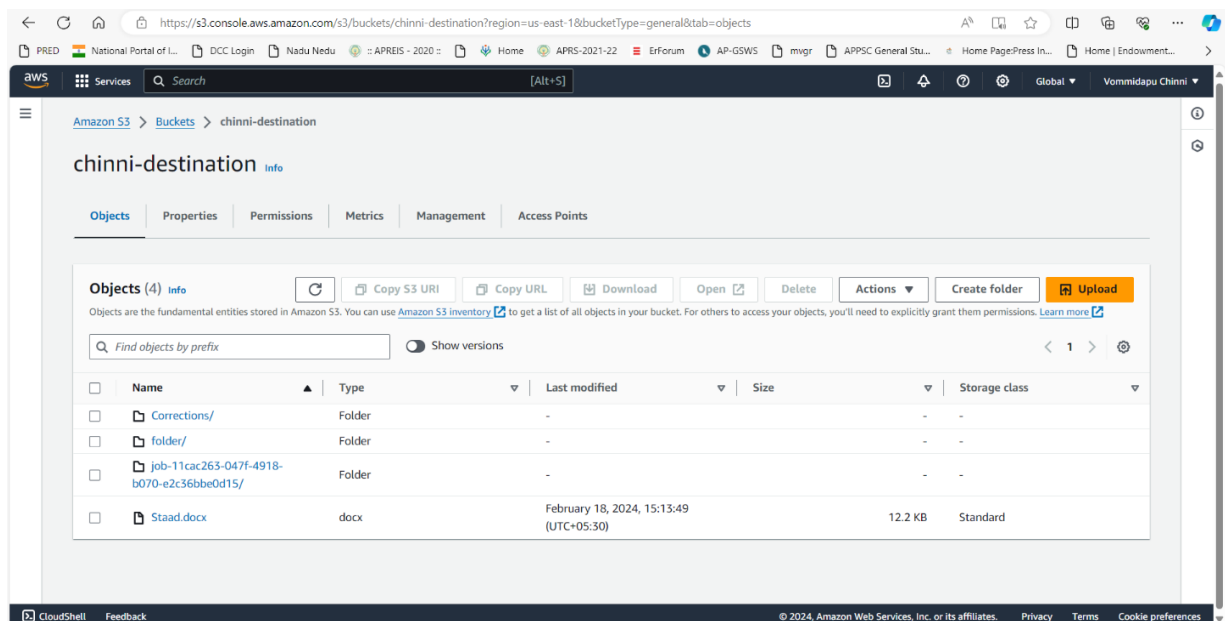
❖ Destination bucket before creating CRR:



Step2: Create CRR

1. Go to destination bucket (chinni-source) and click on bucket ID. Go to management and click on “create replication rule”. Rule name chinni-crr.
2. Click on apply to all objects → click choose a bucket in this account → Browse S3 → choose our destination bucket(chinni-destination) → choose path.
3. select a create new role → click on additional (RTC) → save → click yes → Browse s3 → choose destination path and save it.
4. Refresh all and check that CRR is enabled or not. After enabled go to destination bucket refresh it we get the replicated files from source bucket.

❖ Destination bucket after CRR creating:(Virginia)



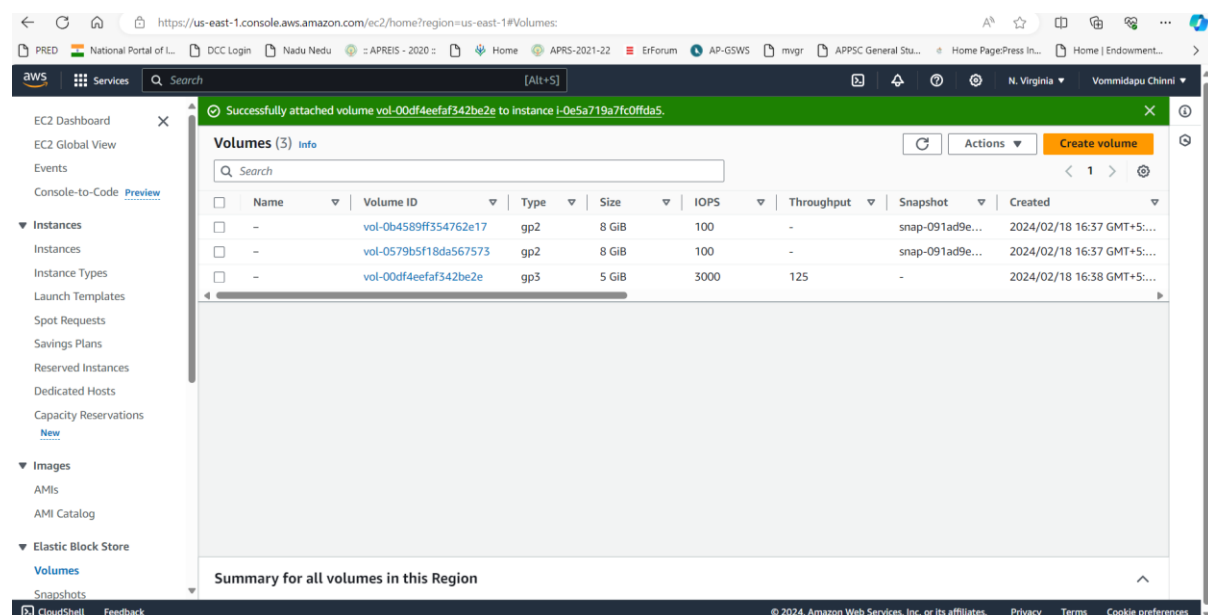
3) Create EBS and attach volume to an instance and unmount the volume and attach to another instance?

EBS: Elastic Block Storage(EBS) allow to create a block level storage volumes. It is a scalable, high performance block storage service designed for Amazon EC2.

These volumes are attached and detached from EC2 instance for data sustain. Volumes are attached to EC2 instance through network.

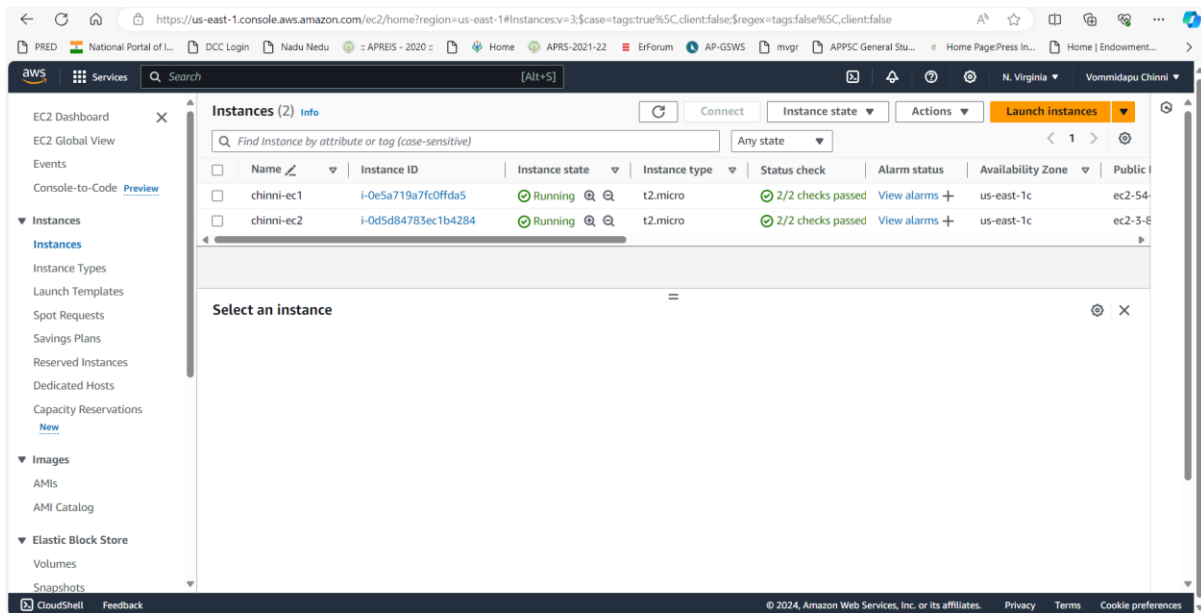
Step1: Create an EBS volume

1. Go to the AWS Management Console and login. Search for EC2 service and open it.
2. In the EC2 dashboard, under “Elastic Block Store”, click on “Volumes”.
3. Click on “create volume”.
4. Select volume type “General Purpose SSD(gp3) → Size 5(GiB) → click create volume.



Step2: Create EC2 Instances

1. Click on Instances. Click on launch Instances → Name as chinni-ec1 → select on ubuntu → click on create new pair → key name as key1 → create key pair.
2. Click on launch instance.
3. Similarly launch another instance name as chinni-ec2.

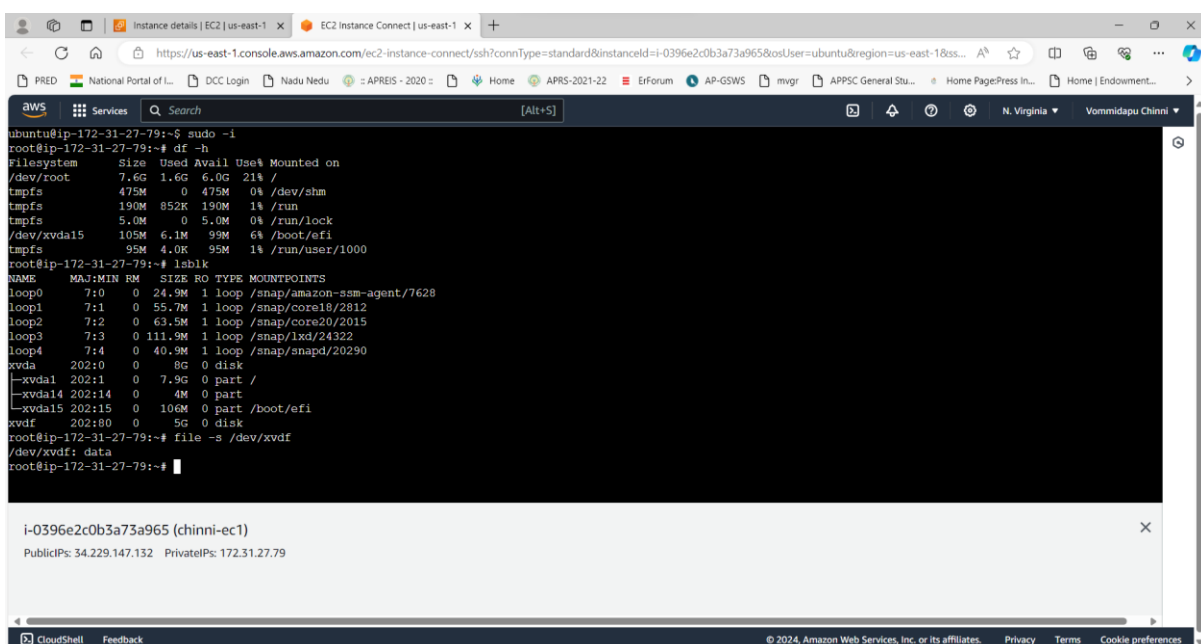


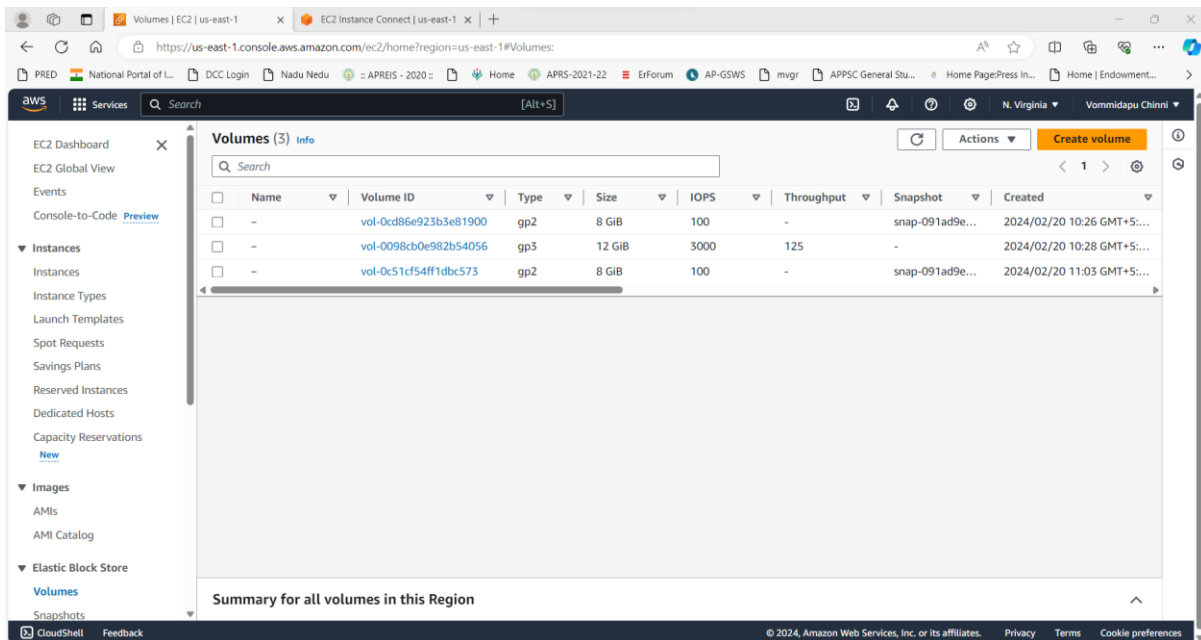
Step3: Attach volume to the first instance

1. Select newly created volume.
2. Click on actions and select attach the volume → select our instance (chinni-ec1) → attach volume.

Step4: Mount the volume to the first instance(chinni-ec1)

1. Click on instances and open the chinni-ec1 ID → click on connect → go to EC2 instance connect then click on connect → a new tab will be opened.
2. `sudo -i` is used to convert from normal user to root user.
3. `df -h` is used to display the disk usage in human readable format.
4. `lsblk` → list the block storage.
5. To check is there any file system on this device by using file `-s /dev/xvdf`.

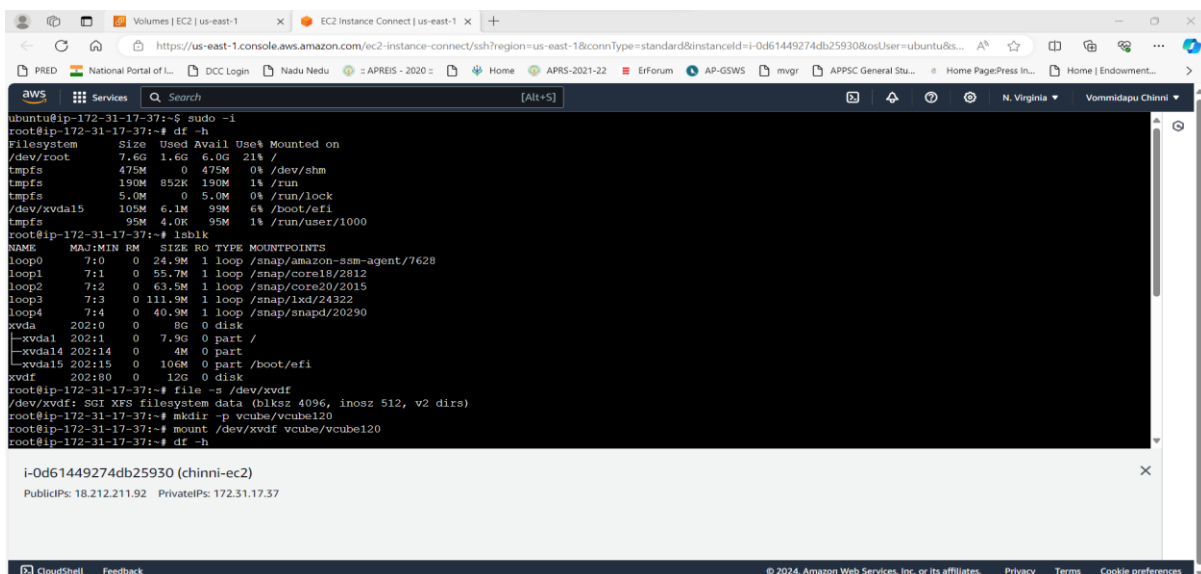


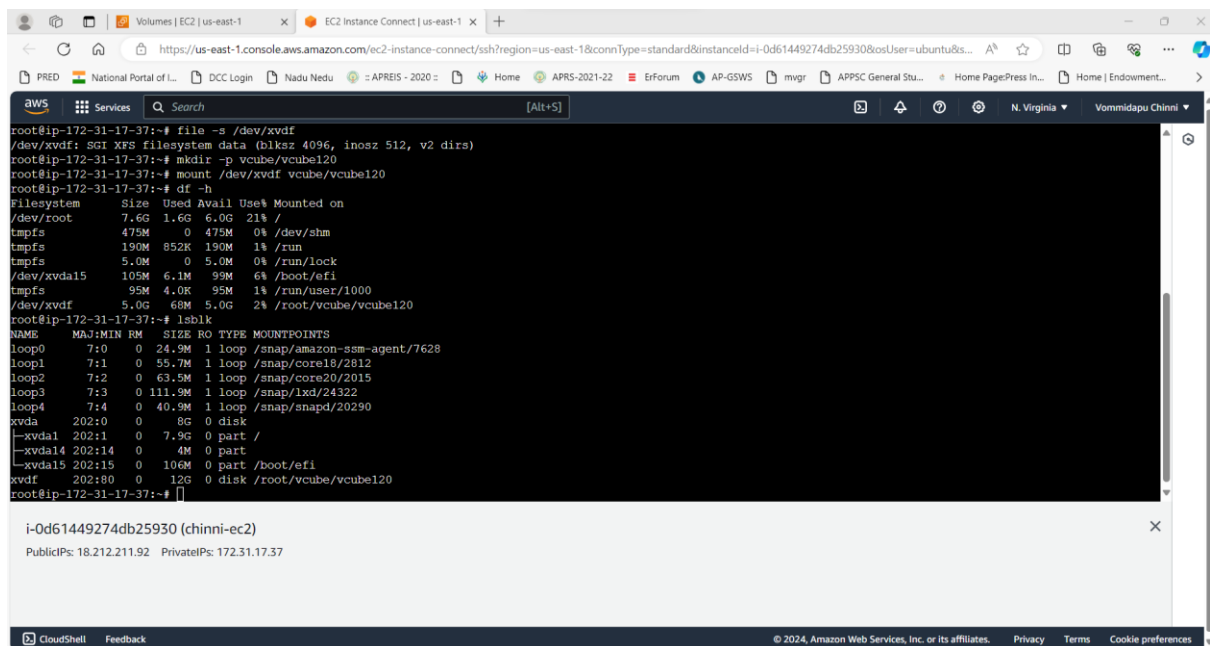


Step6: Attach the volume to the second instance

1. Click on actions in volume dashboard and select attach the volume → select our instance (chinni-ec2) → attach volume.
2. Click on instances and open the chinni-ec2 ID → click on connect → go to EC2 instance connect then click on connect → a new tab will be opened.
3. Connect from chinni-ec2 → sudo -i, df -h.
4. df -h is used to display the disk usage in human readable format.
5. lsblk → list the block storage.
6. To check is there any file system on this device by using file -s /dev/xvdf.
7. Click on actions in volume dashboard.
8. Click on detach the volume → force detach volume → detach → force detach.

Mounting:





Unmounting:

