



## ASSIGNMENT – 01

COURSE : DEVOPS

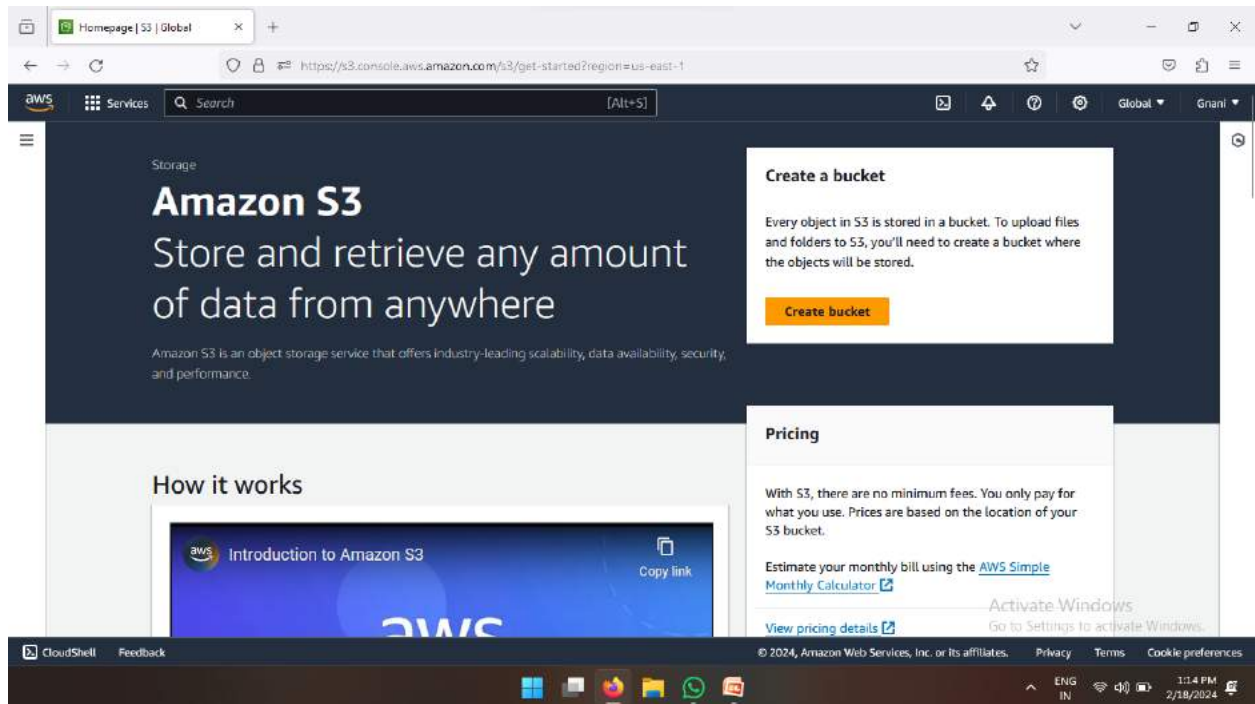
Trainer : Mr . MADHUKAR

NAME:M.KEERTHANA

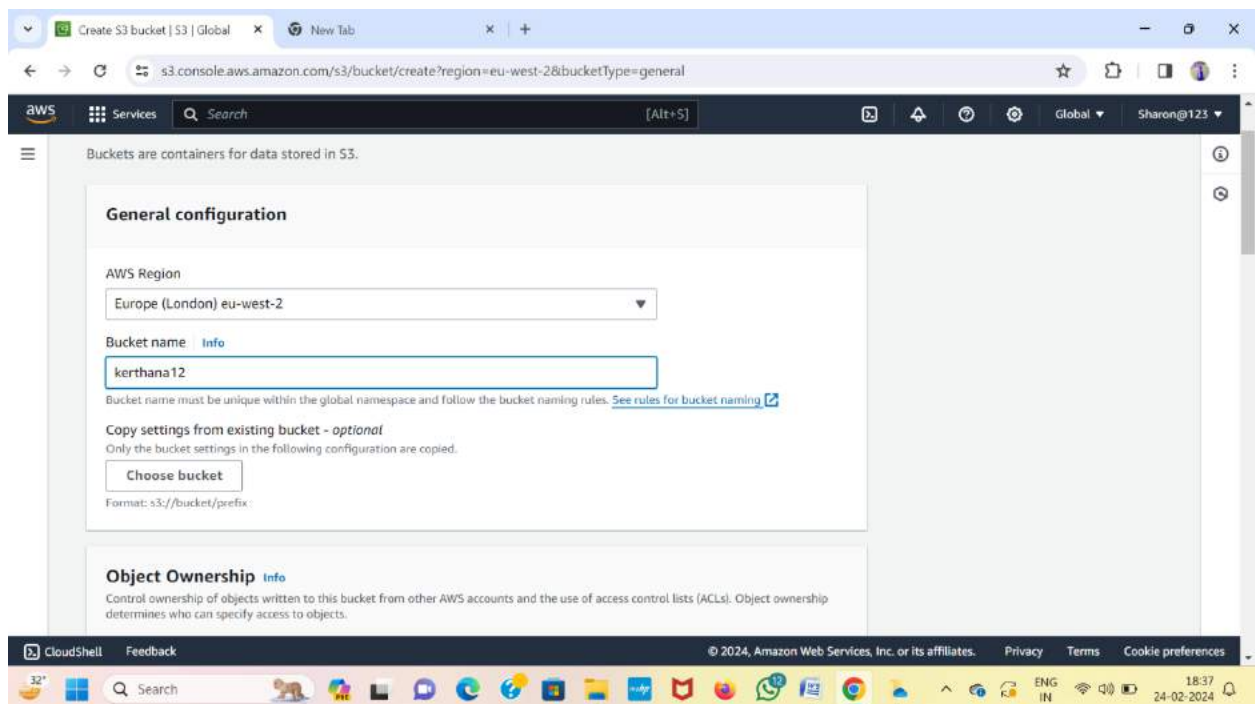
Mail id :merugukeerthana12@gmail.com

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

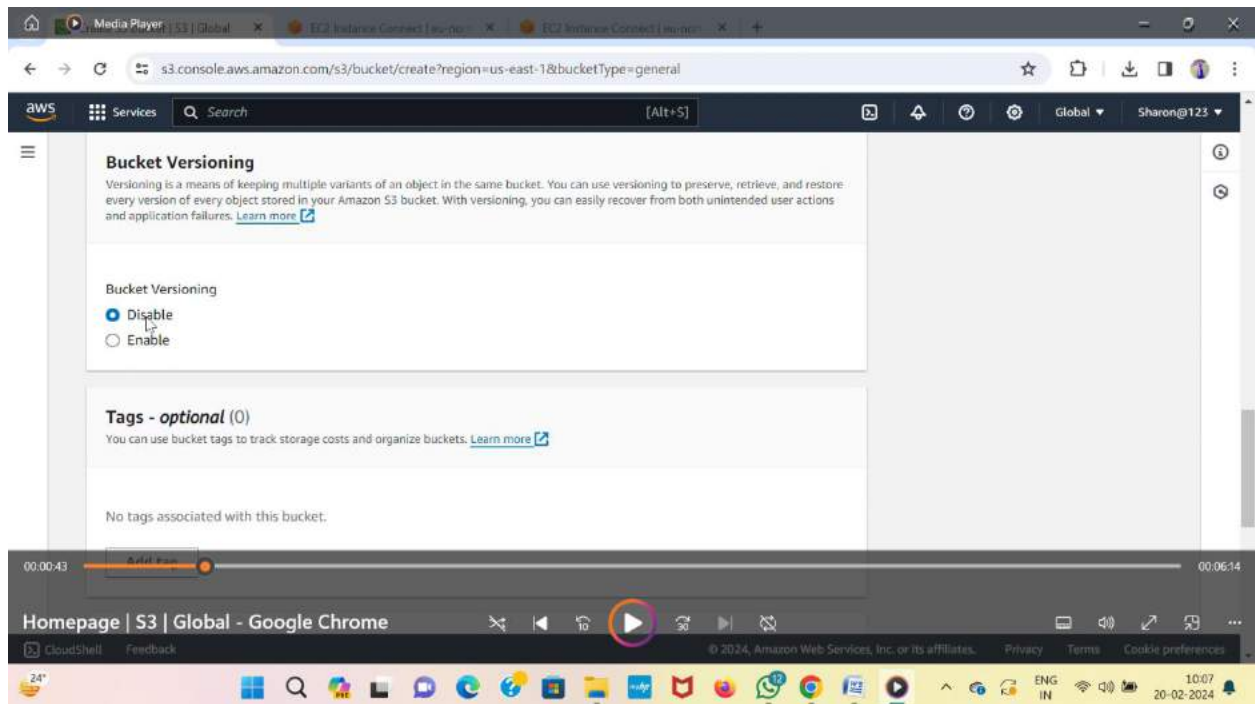
- Go to Amazon S3 , Click on Create Bucket



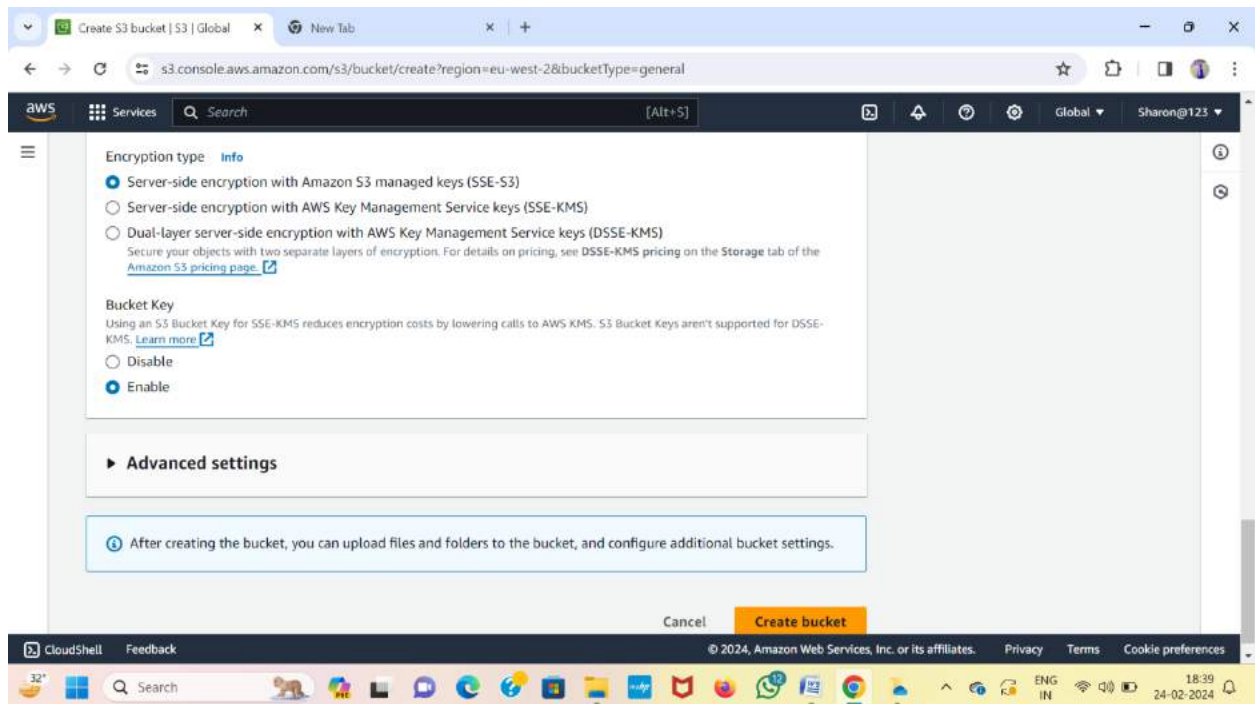
- Enter Bucket Name and Select Any one Region



- Enable Bucket Version

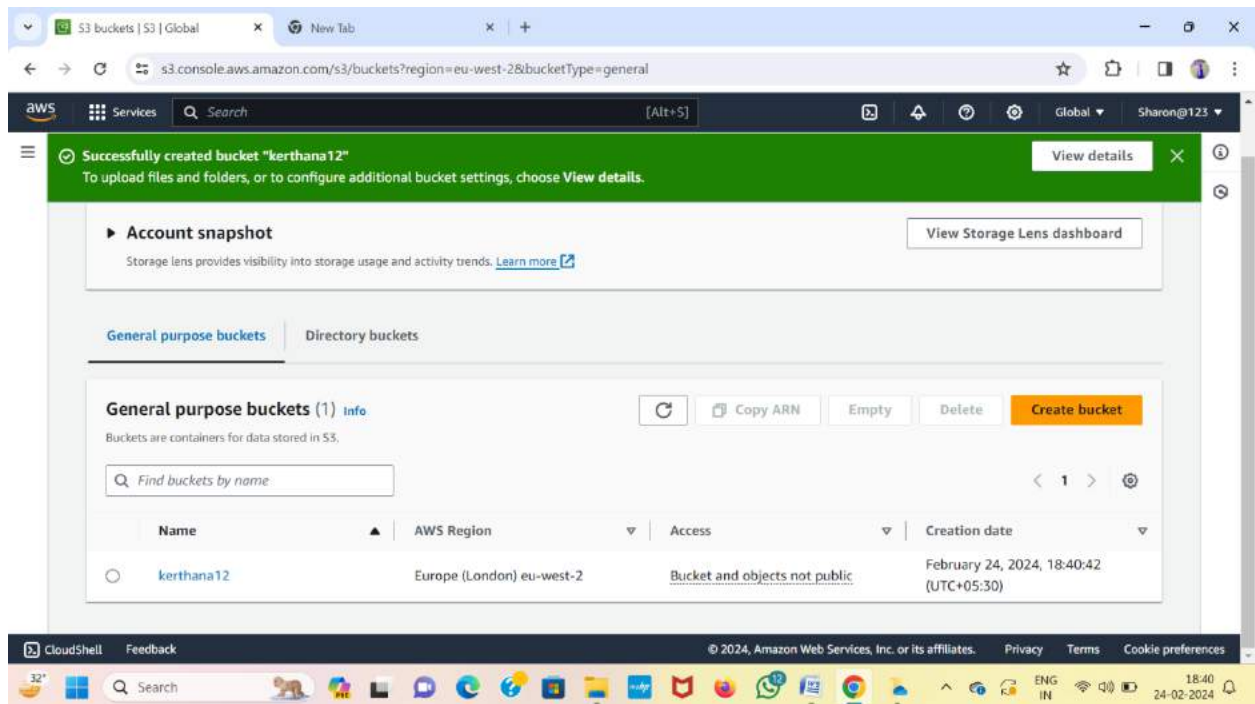


- After that Click on Create Bucket

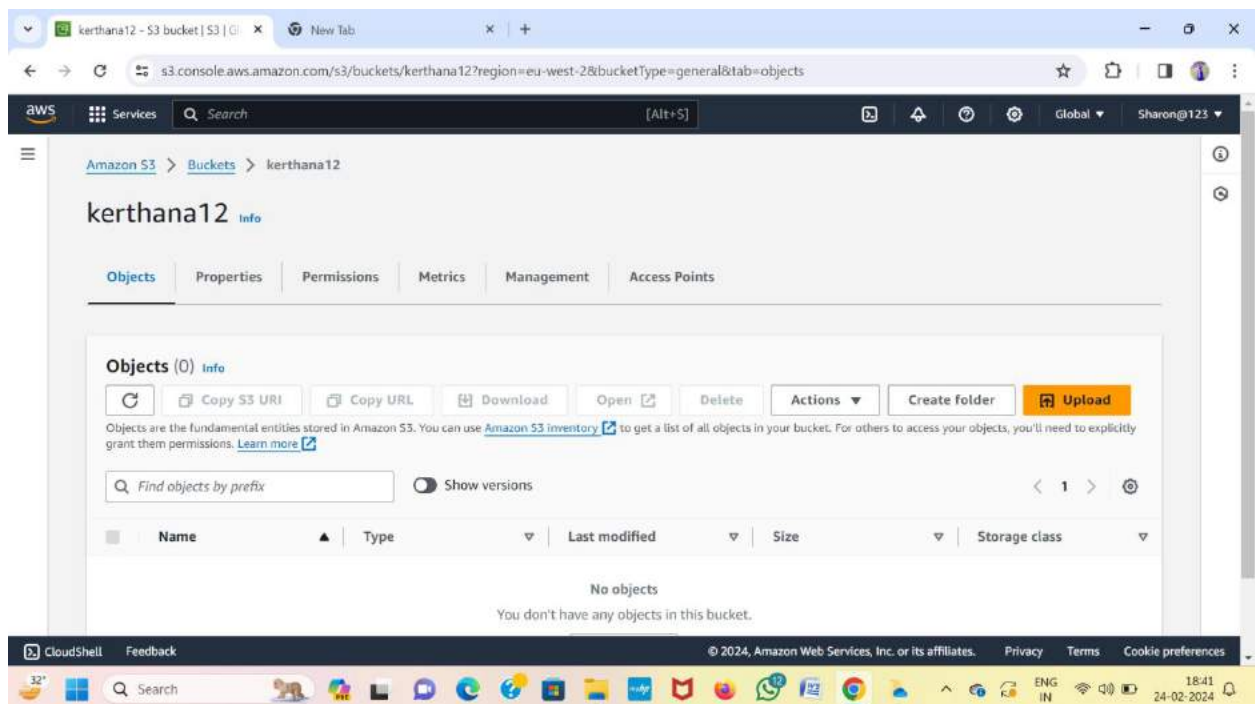


- One more bucket created in different region.

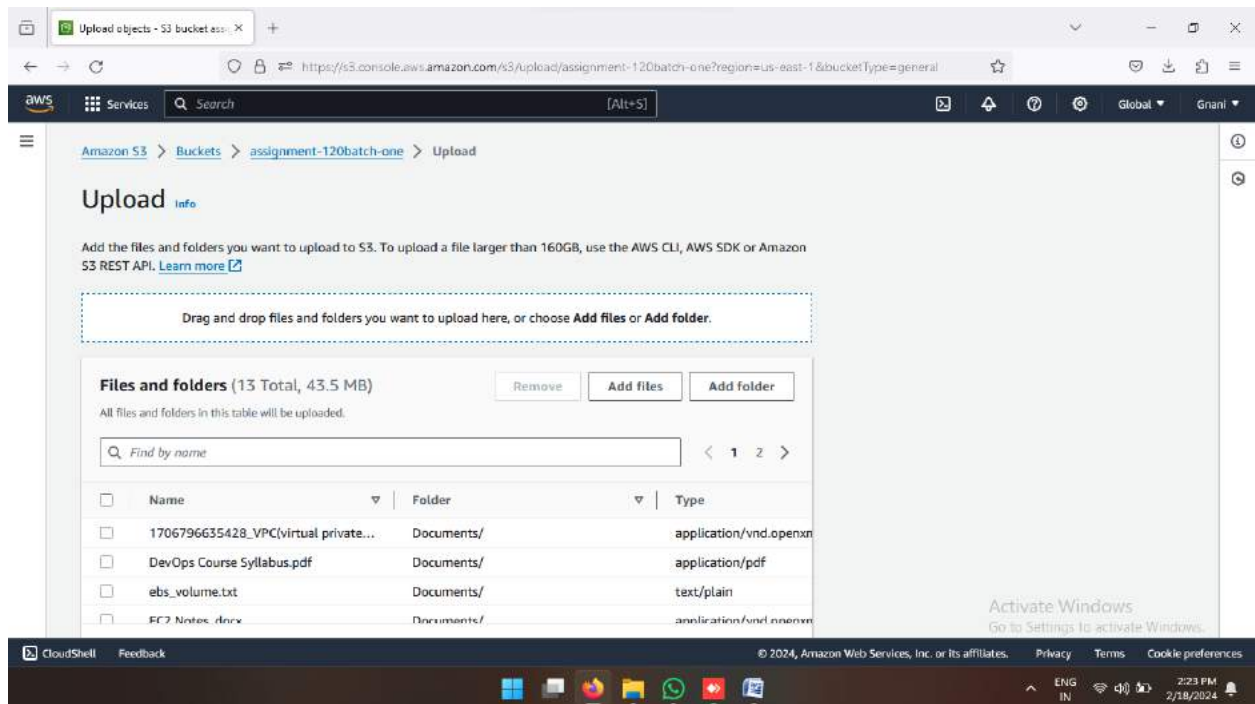
- Now see the 2 Buckets in different region



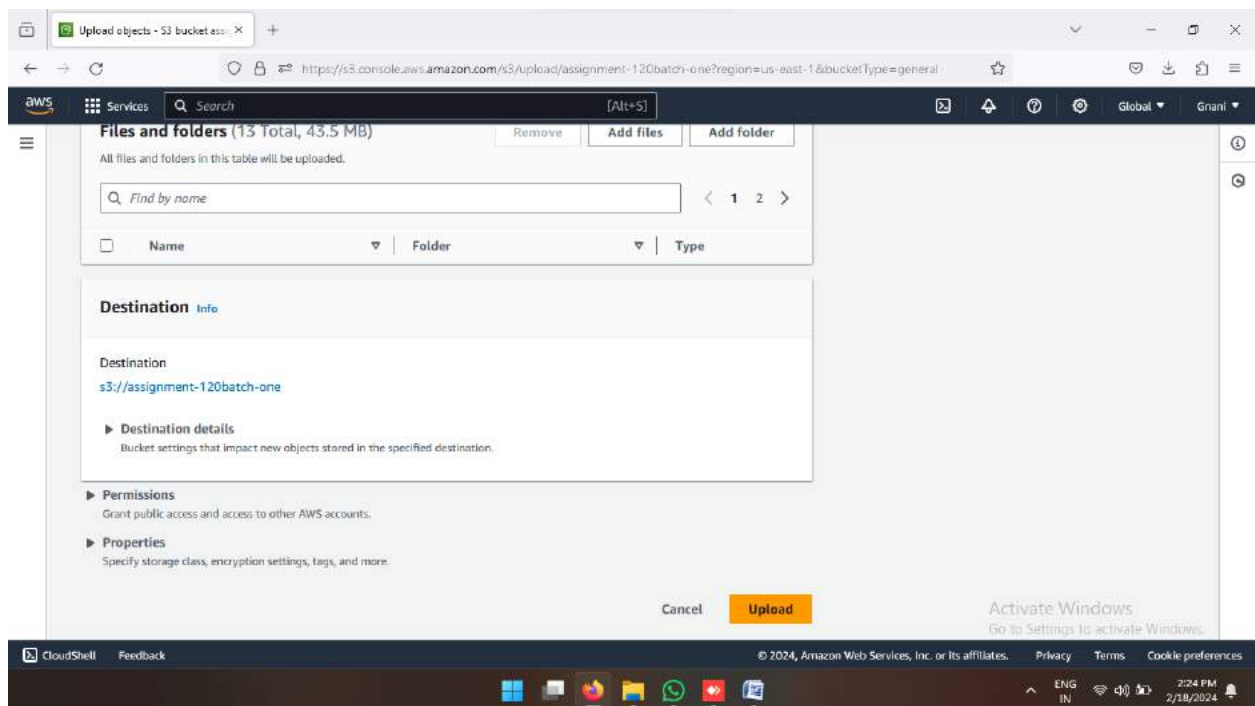
- Now go to first bucket and click on upload



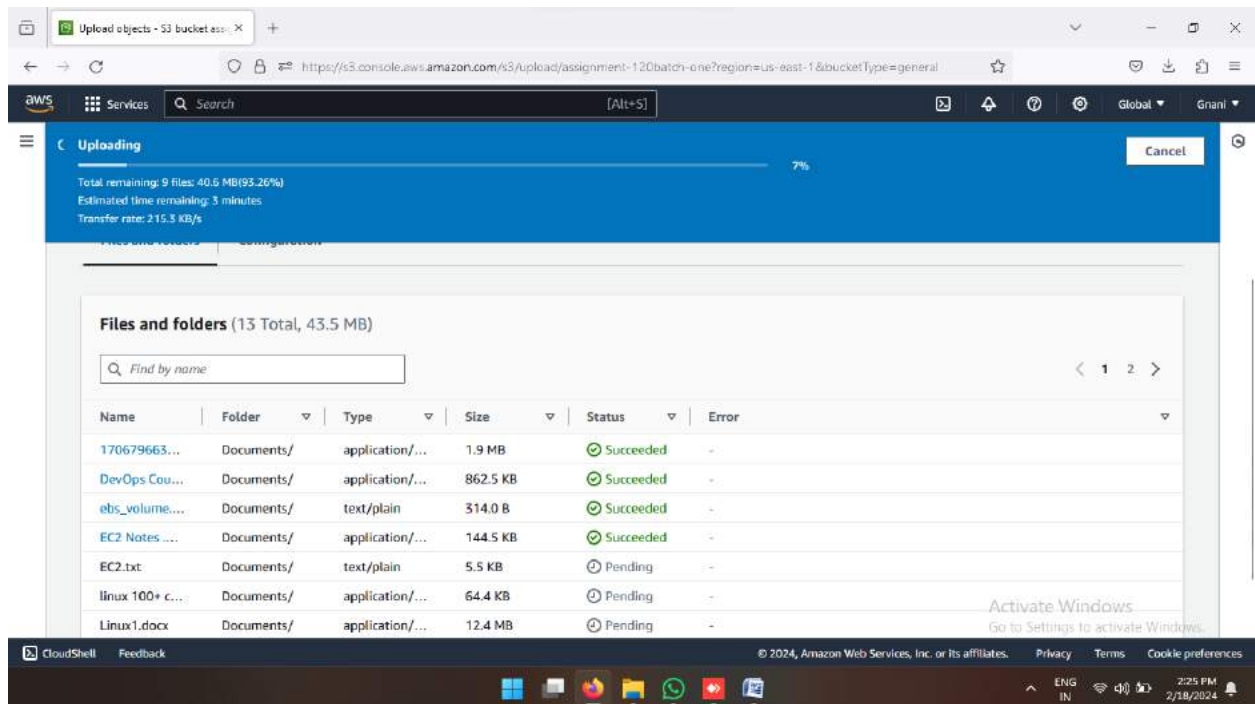
- Then Add Files and Add Folders then upload



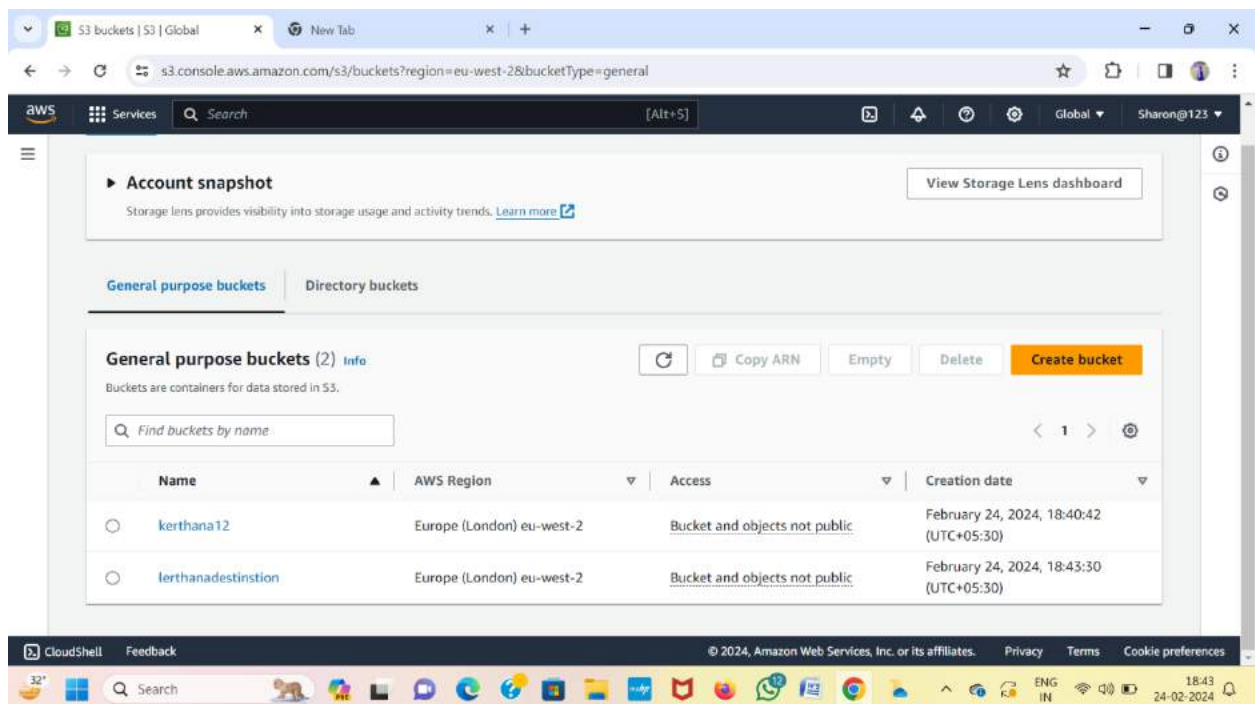
- Click on Upload



- Uploading Files and Folders

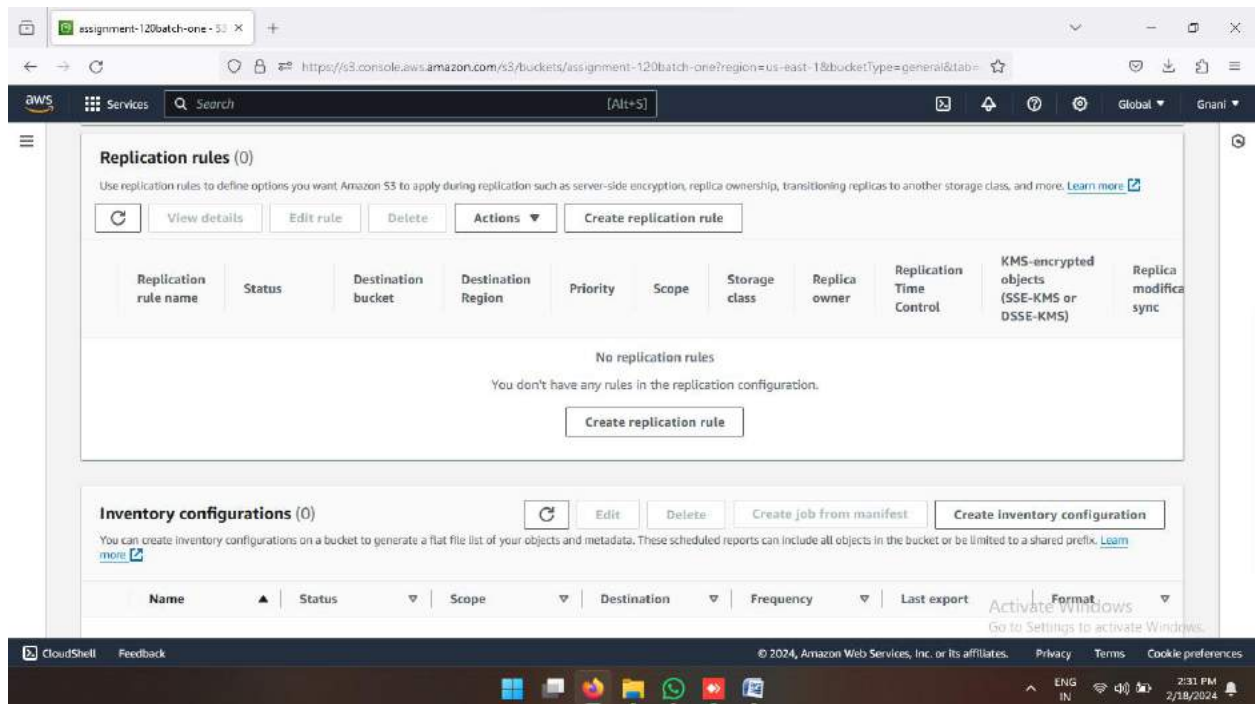


- Now go to Management in first bucket (or) Source Bucket

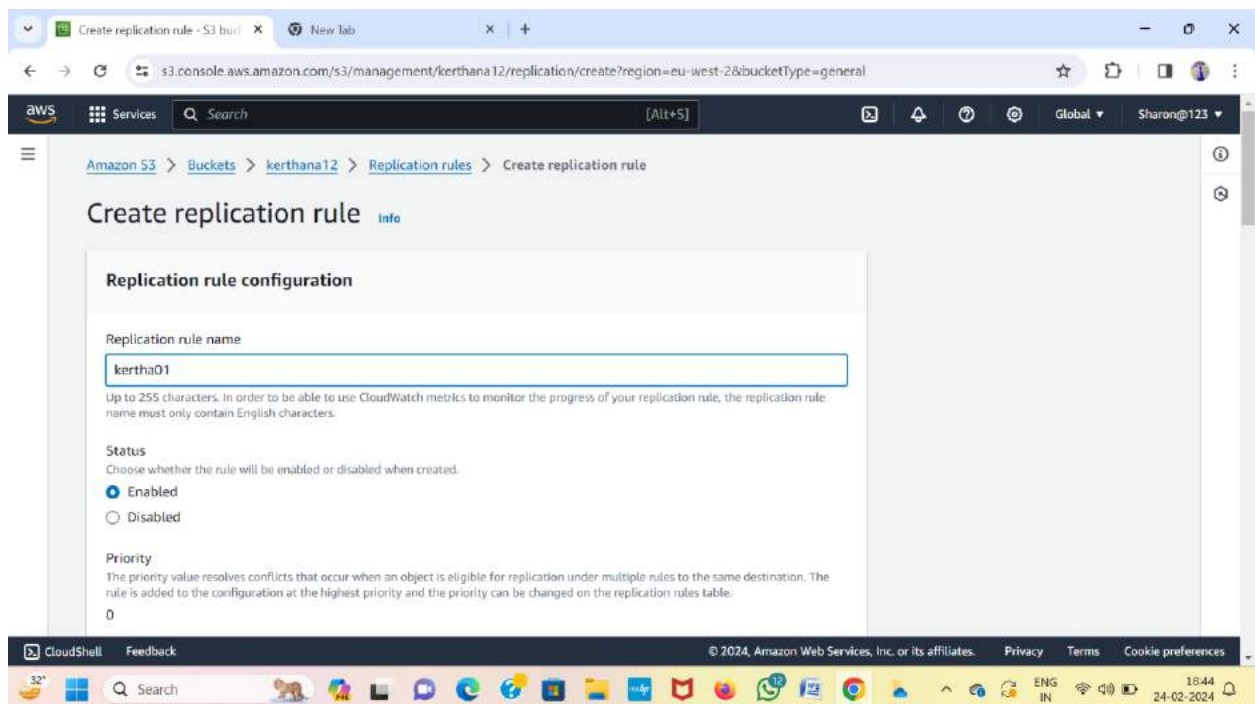




- In Management Console click on create Replication Rule



- Enter Replication rule name



- Click on Apply to all objects in the bucket

The screenshot shows the 'Create replication rule' page in the AWS Management Console. The 'Source bucket' section is active, showing the source bucket name as 'assignment-120batch-one' and the source region as 'US East (N. Virginia) us-east-1'. Under 'Choose a rule scope', the option 'Apply to all objects in the bucket' is selected. The 'Filter type' section is also visible, with a 'Prefix' filter type chosen. The 'Tags' section is at the bottom, indicating that tags can be used to limit the scope of the rule.

Source bucket

Source bucket name  
assignment-120batch-one

Source Region  
US East (N. Virginia) us-east-1

Choose a rule scope

- ☒ Limit the scope of this rule using one or more filters
- ☐ Apply to all objects in the bucket

Filter type

You can filter objects by prefix, object tags, or a combination of both.

Prefix

Add a filter to limit the scope of this rule to a single prefix.

Enter prefix

Tags

You can limit the scope of this rule to the key value pairs added below.

- Now Choose Destination where ever you want to see the data
- Choose a bucket in this account

The screenshot shows the 'Create replication rule' page in the AWS Management Console, specifically the 'Destination' section. The 'Destination' section is active, showing the destination bucket name as 'assignment-120batch-one' and the destination region as 'US East (N. Virginia) us-east-1'. Under 'Choose a bucket in this account', the option 'Specify a bucket in another account' is selected. The 'Bucket name' section is also visible, with a 'Bucket name' field and a 'Browse S3' button. The 'IAM role' section is at the bottom, with the option 'Choose from existing IAM roles' selected.

Destination

You can replicate objects across buckets in different AWS Regions (Cross-Region Replication) or you can replicate objects across buckets in the same AWS Region (Same-Region Replication). You can also specify a different bucket for each rule in the configuration. [Learn more](#)

Choose a bucket in this account

- ☒ Choose a bucket in this account
- ☐ Specify a bucket in another account

Bucket name

Choose the bucket that will receive replicated objects.

Enter bucket name

Browse S3

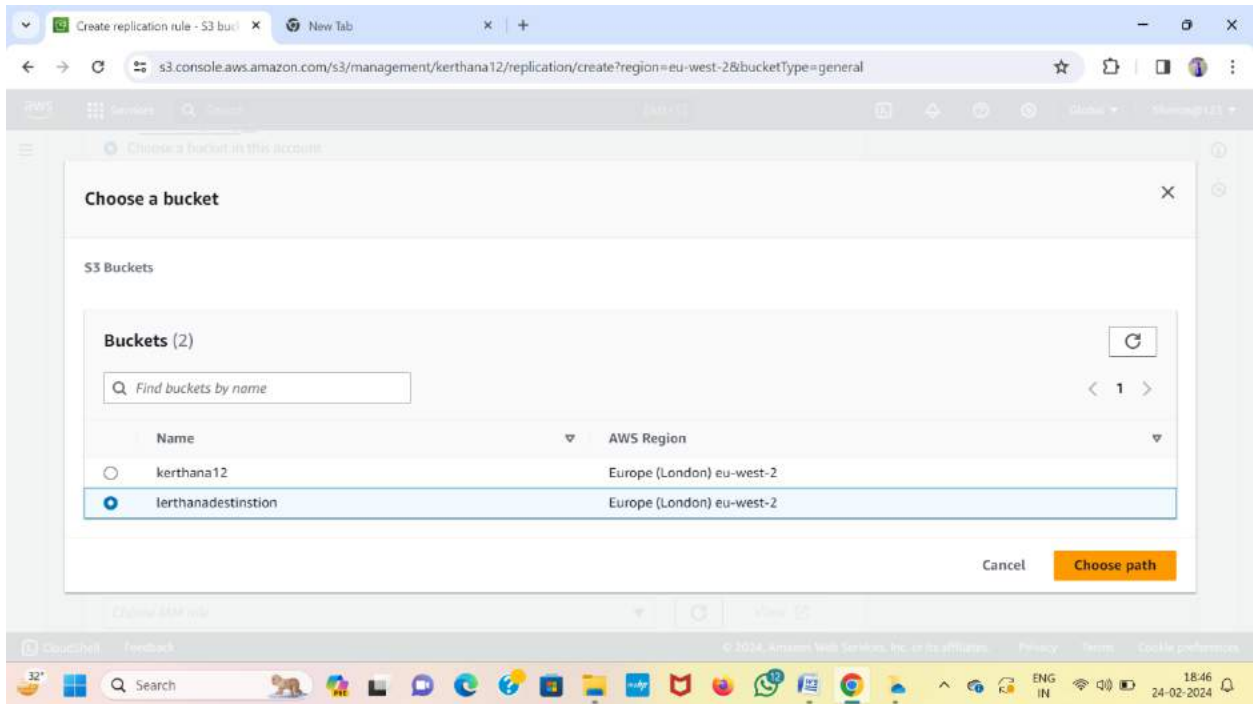
Destination Region

IAM role

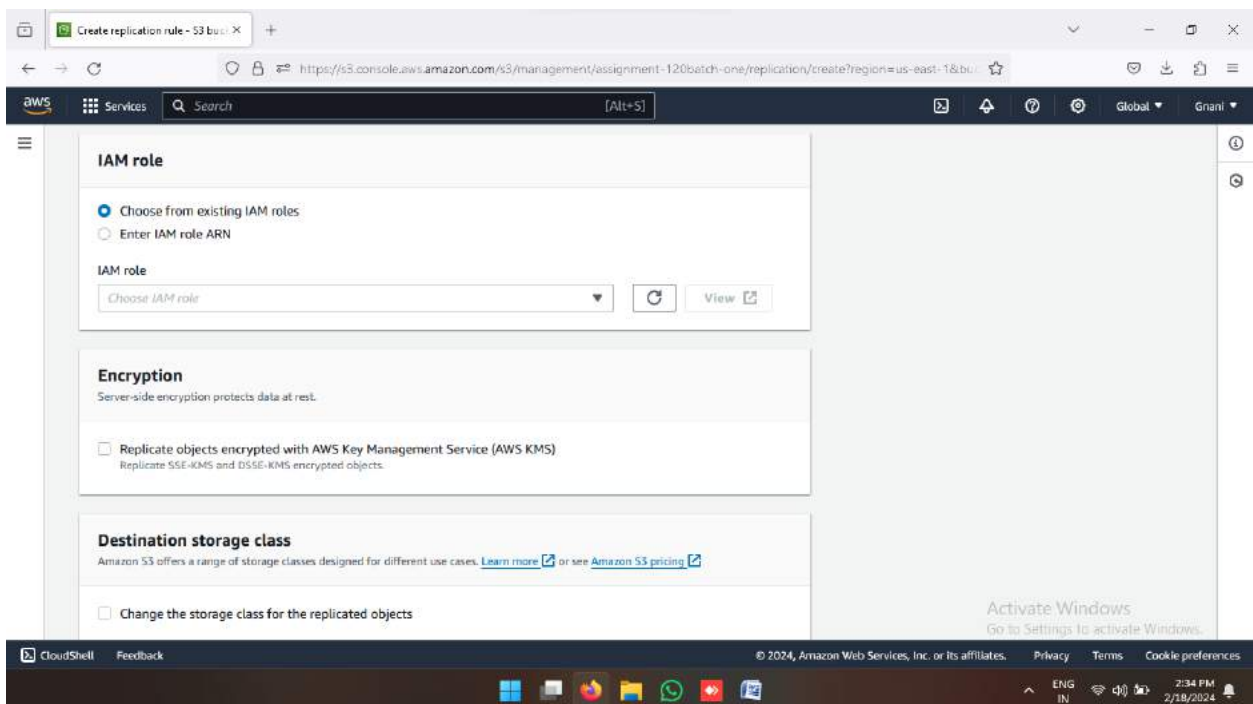
- ☒ Choose from existing IAM roles
- ☐ Enter IAM role ARN



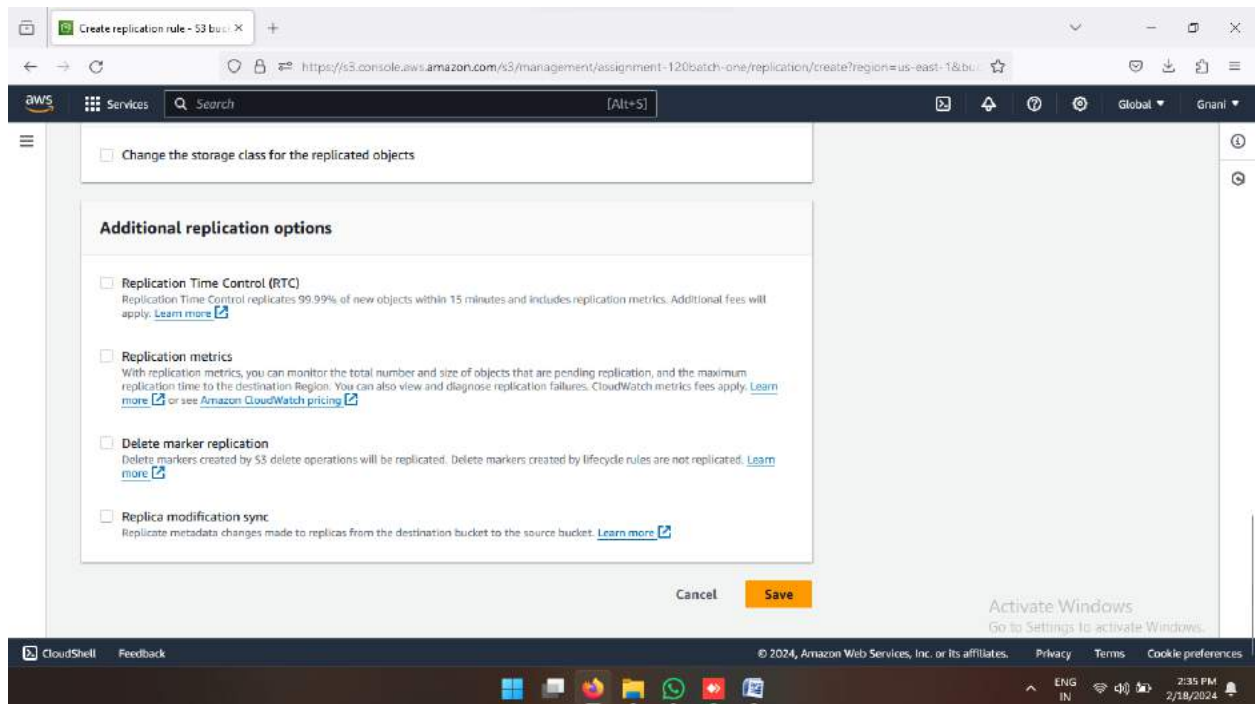
- Select another region Bucket (or) Where ever you want to see the data that bucket select and click on choose path



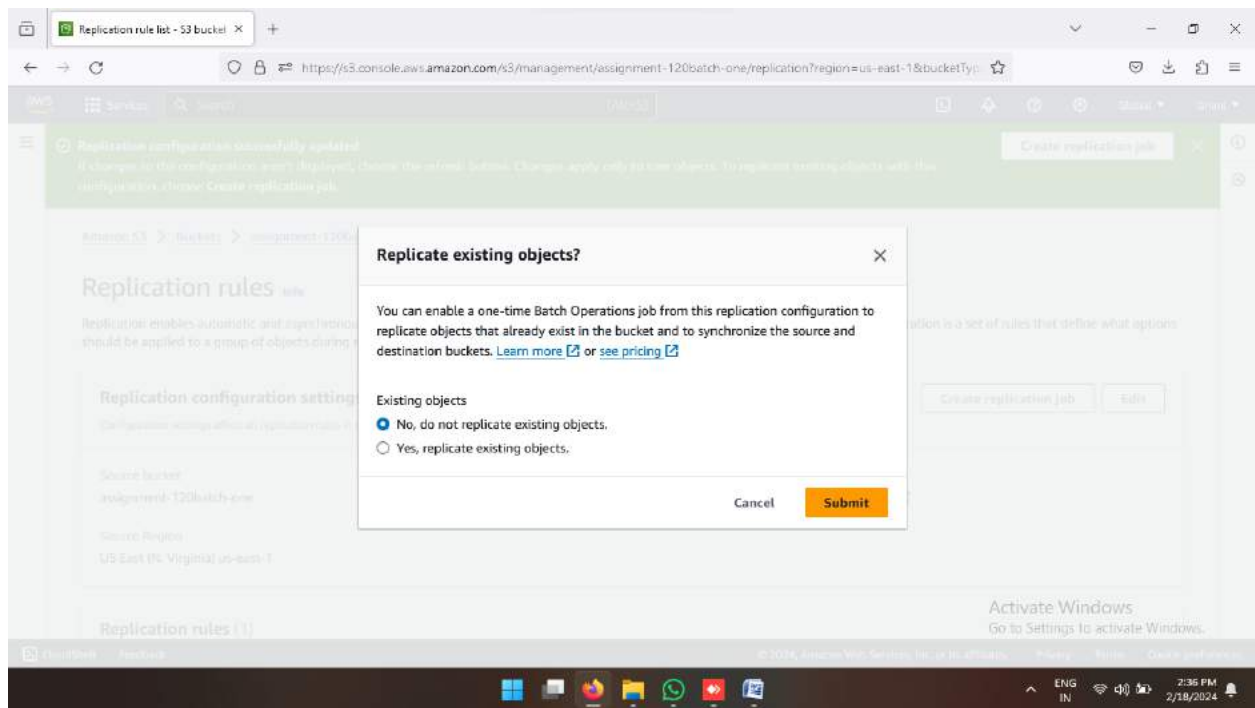
- Now choose from existing IAM roles
- Select Drop down Create a new role



- Then Save the Replication Rule



- Now if you want see the existing data then click on Yes
- If you don't want to see the existing data then click on No then submit



- If You Click yes then choose the destination path again and click on save button

The screenshot shows the 'Create job' page in the AWS S3 console. The page is titled 'Completion report' and contains the following sections:

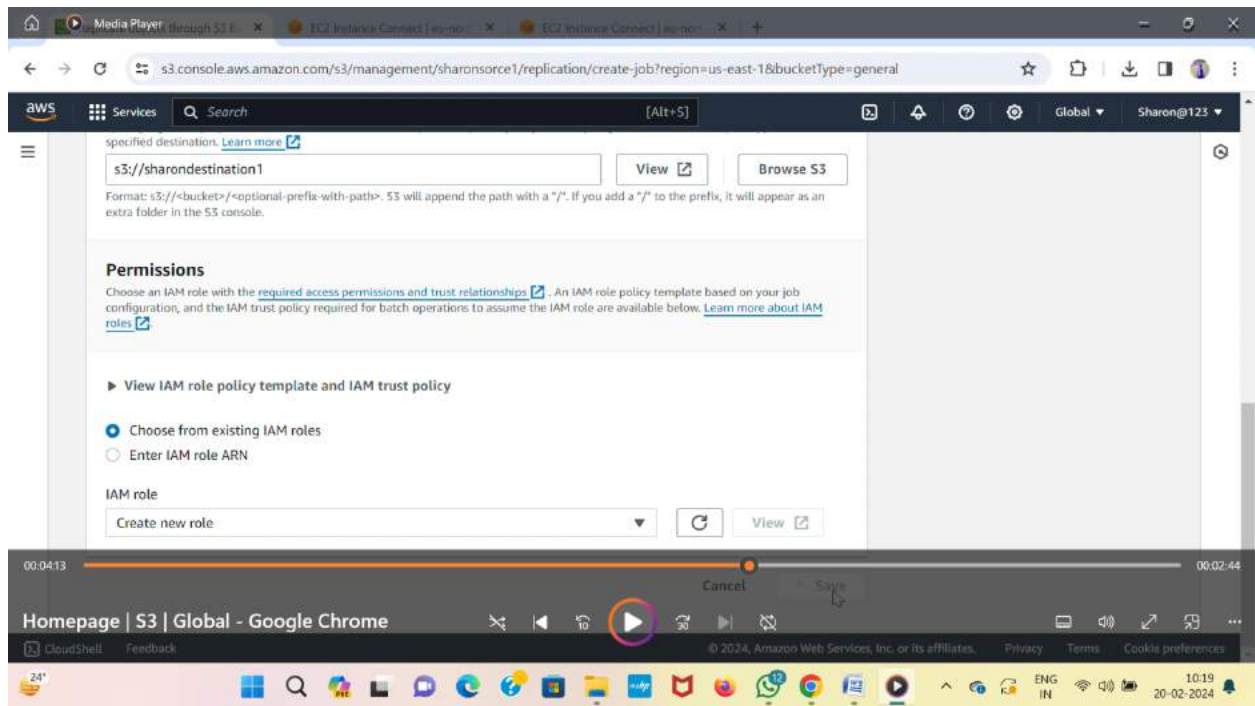
- Generate completion report:** A checkbox that is checked.
- Completion report scope:** Two radio buttons: 'Failed tasks only' and 'All tasks' (selected).
- Completion report destination:** A text input field containing 's3://bucket-name/prefix'. To the right are 'View' and 'Browse S3' buttons. Below the input field, a format note states: 'Format: s3://<bucket>/<optional-prefix-with-path>. S3 will append the path with a "/". If you add a "/" to the prefix, it will appear as an extra folder in the S3 console.'
- Permissions:** A section with a heading and a paragraph explaining the need for IAM role permissions and trust relationships, with links to 'Learn more' and 'View IAM role policy template and IAM trust policy'.

The bottom of the screen shows the Windows taskbar with the date 2/18/2024 and time 2:37 PM.

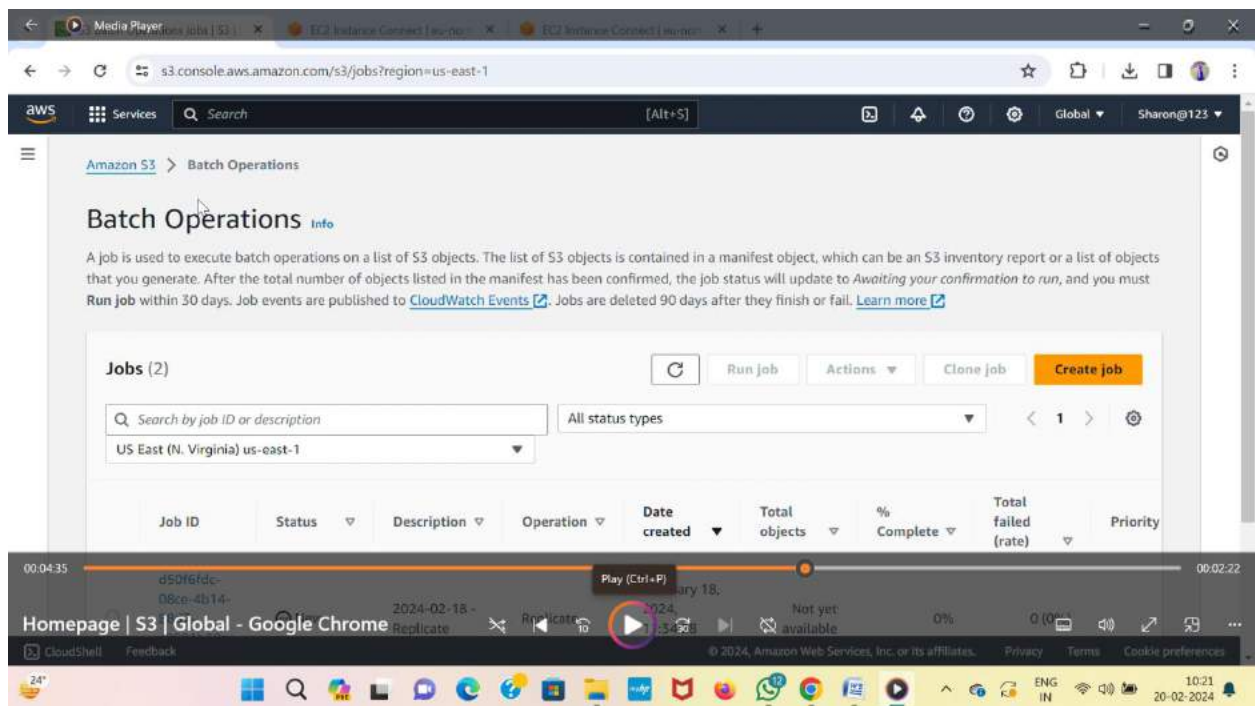
The screenshot shows a modal dialog box titled 'Choose a completion report destination'. It contains the following elements:

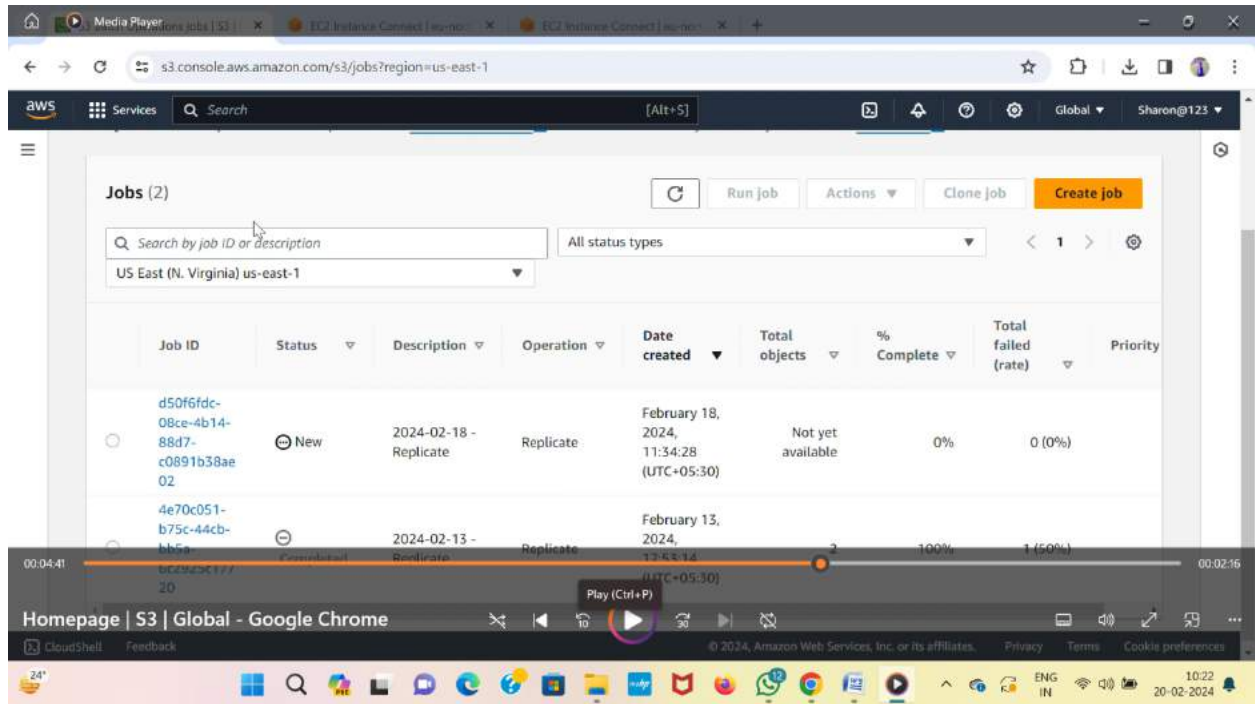
- S3 Buckets:** A section header.
- Buckets (2):** A list of two buckets. The first bucket is 'kerthana12' in the 'Europe (London) eu-west-2' region. The second bucket is 'kerthanadestination' in the 'Europe (London) eu-west-2' region, which is selected with a radio button.
- Find buckets by name:** A search input field.
- Navigation:** '< 1 >' buttons for navigating between buckets.
- Buttons:** 'Cancel' and 'Choose path' buttons at the bottom right.

The bottom of the screen shows the Windows taskbar with the date 24-02-2024 and time 18:47.

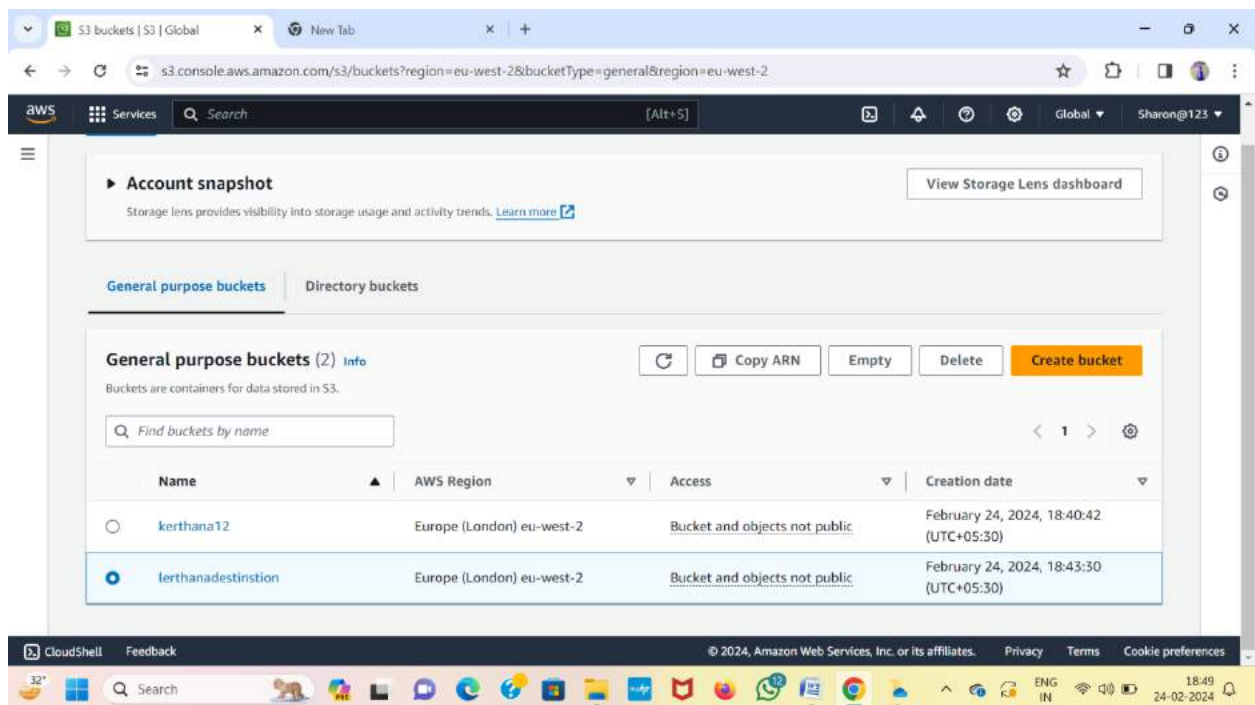


- After Save Button Click then one batch Operation Created that status is showing Preparing.
- Status is changed active then we can see the data into the destination bucket.



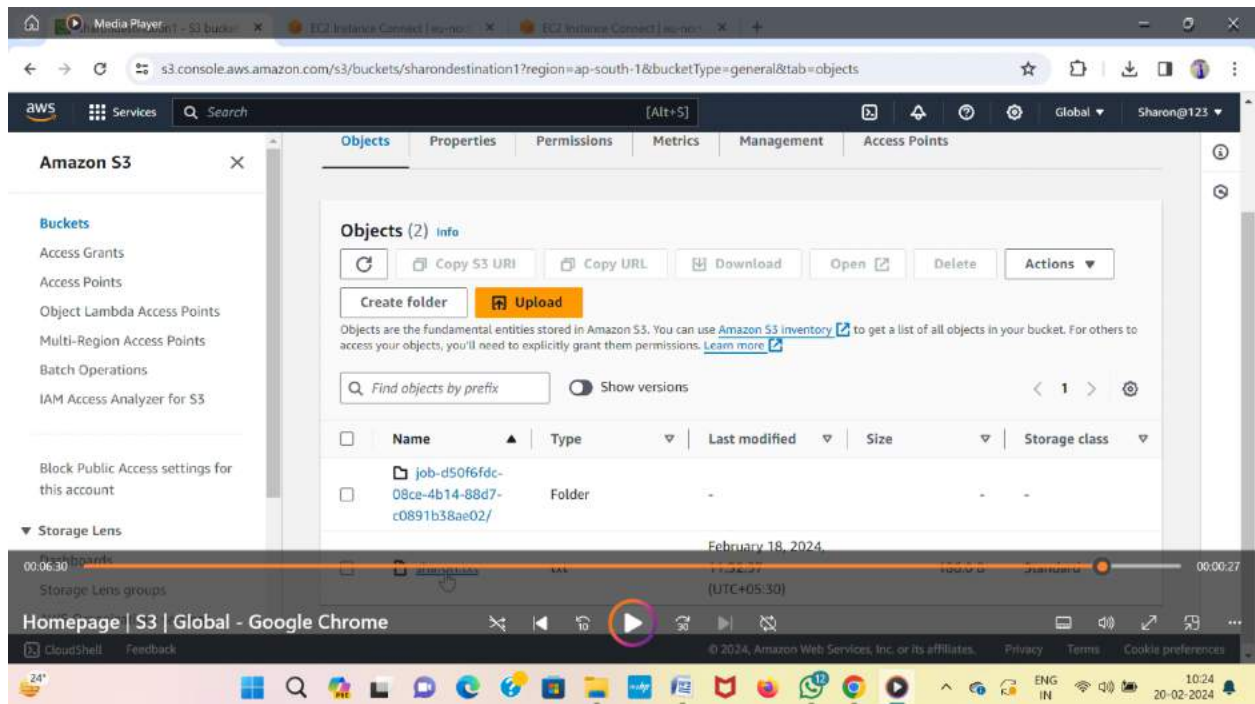


- Whenever Batch Operation Active go to Destination Bucket and see the data.





- Now See the data in Destination Bucket.

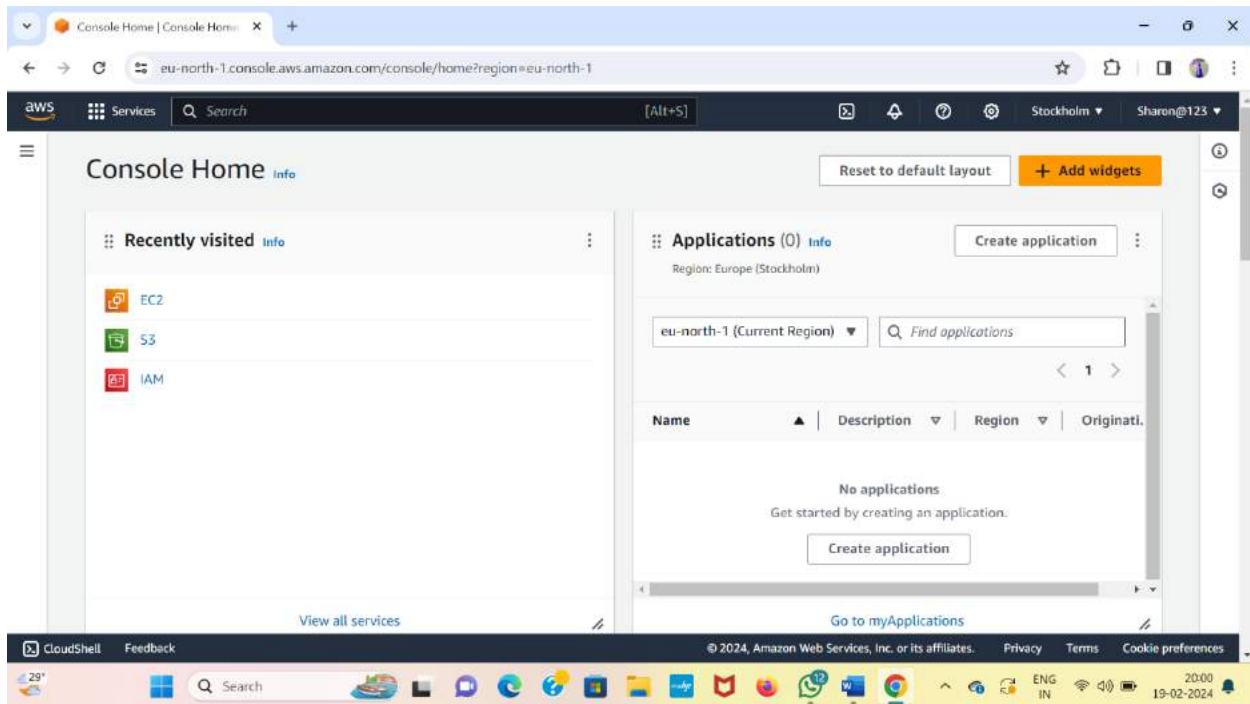


\*\*\*\*\* END \*\*\*\*\*

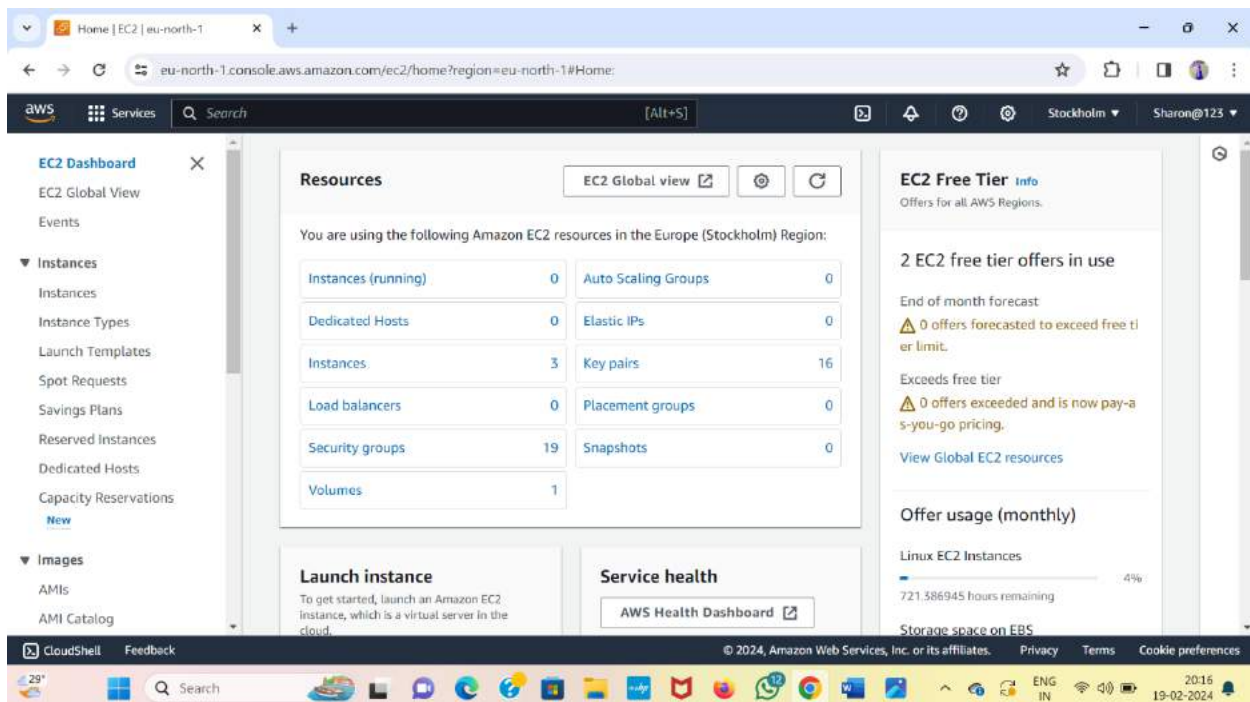


### 3) Create ebs and attach volume to an instance and unmount the volume and attach to another instance?

- Go to AWS Console Home and search EC2 and Click on EC2

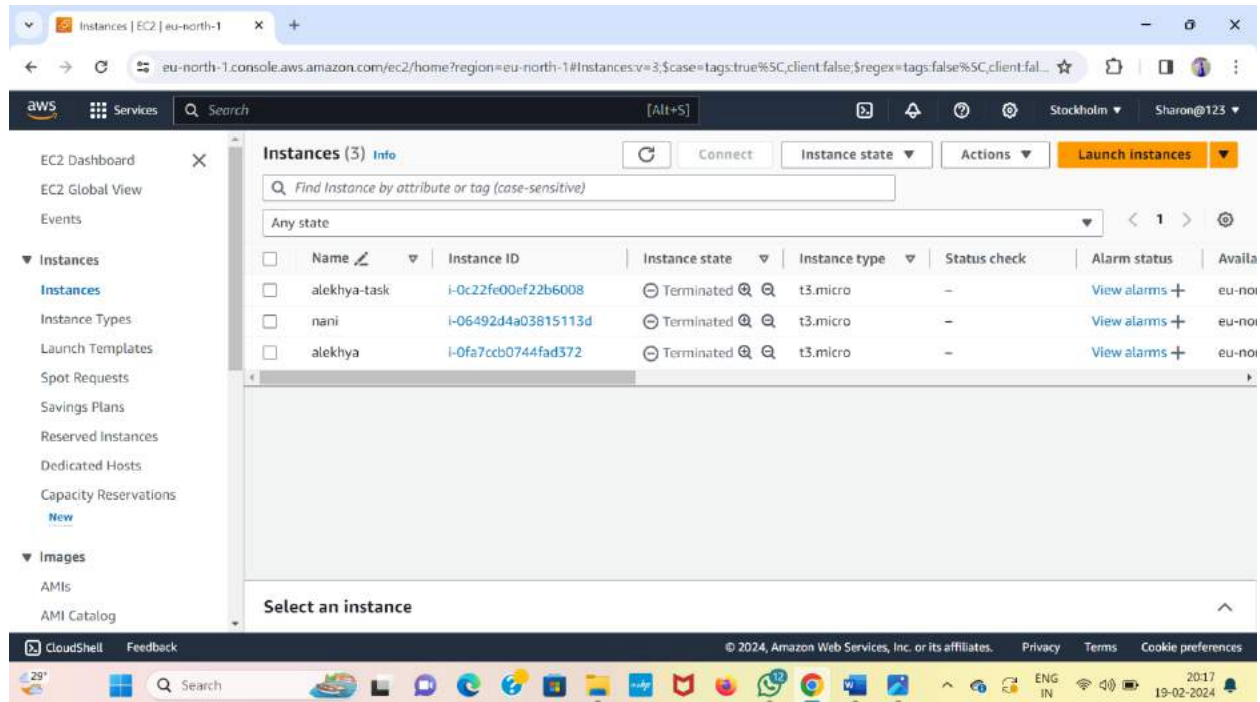


- Now we are in EC2 Dashboard
- Click on Instances

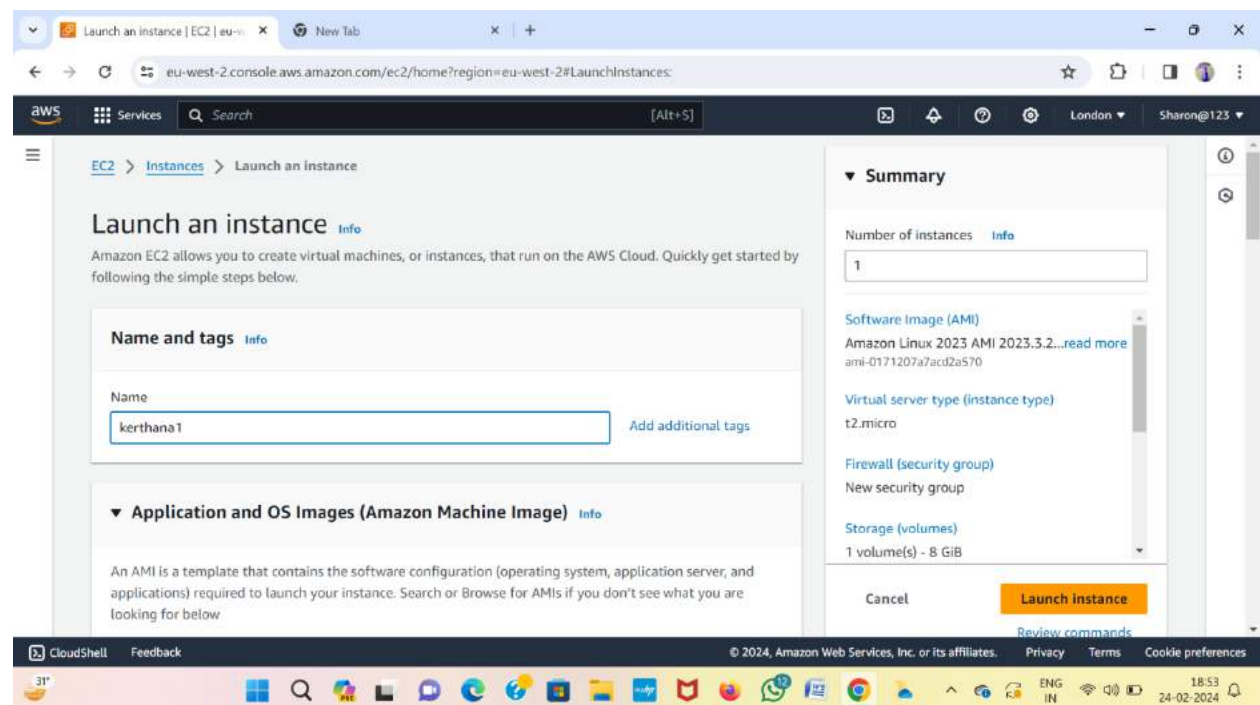


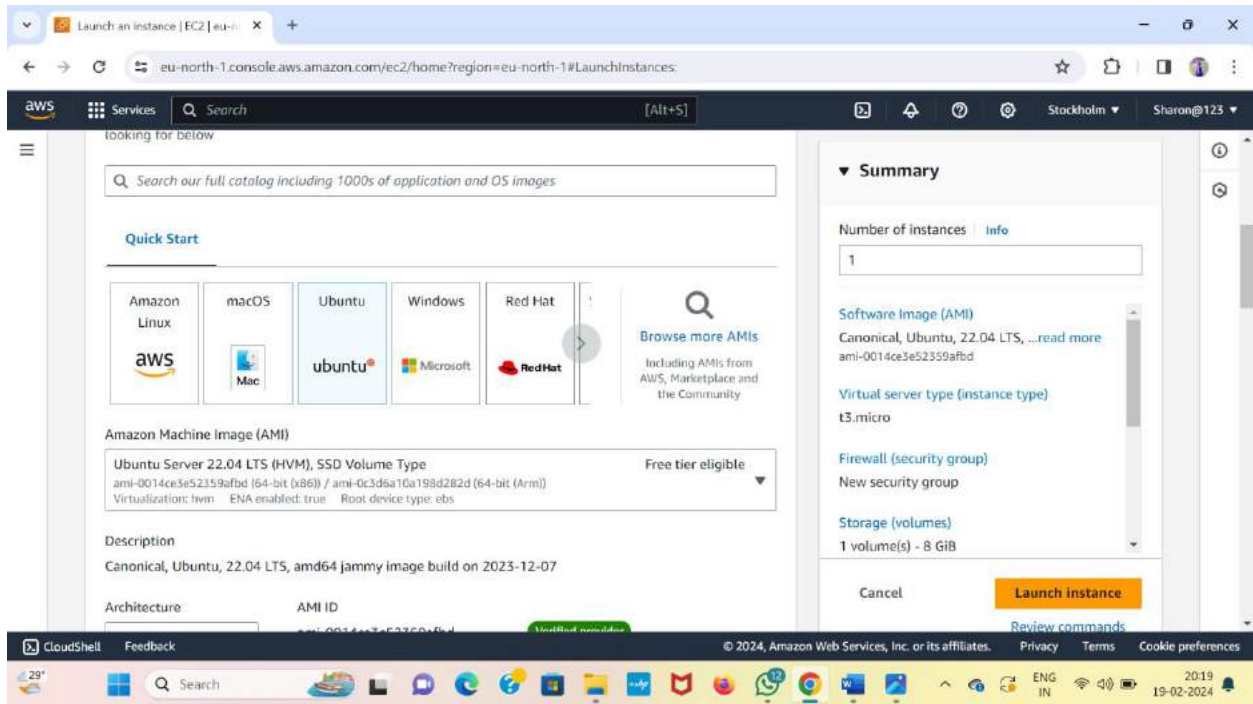
- Now Create One Server in any region

- Click on Launch Instances

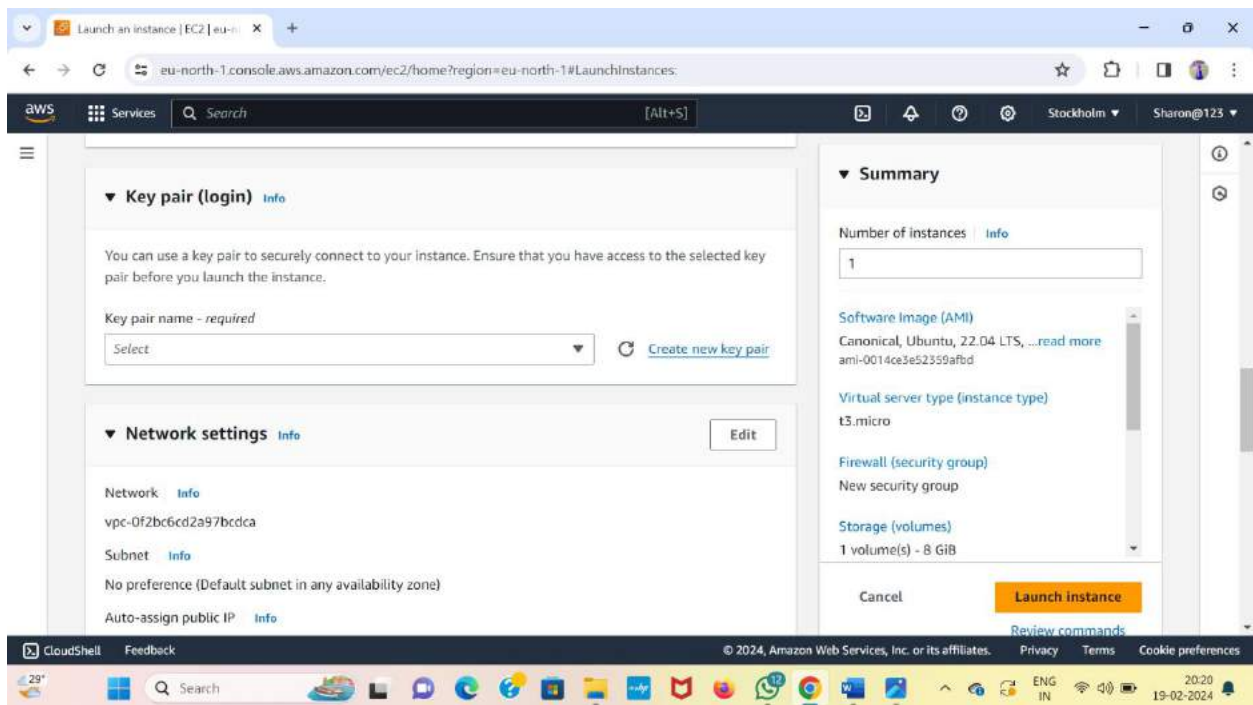


- Enter Name and select operating system

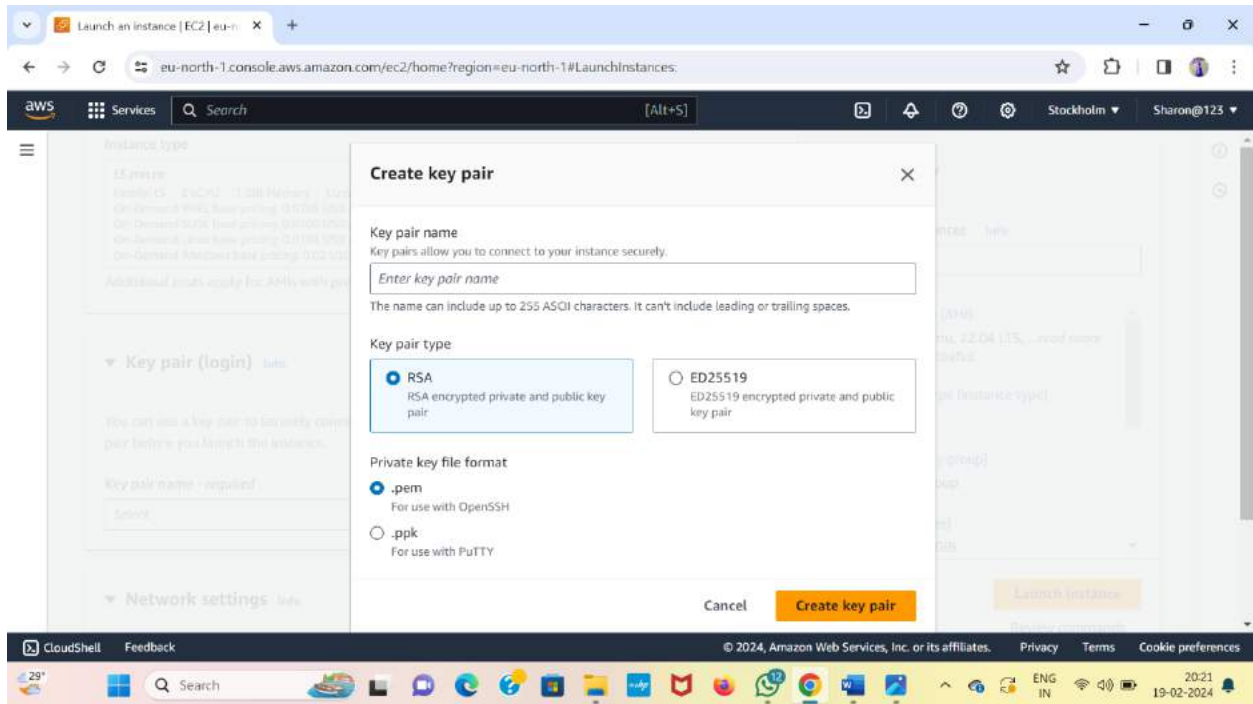




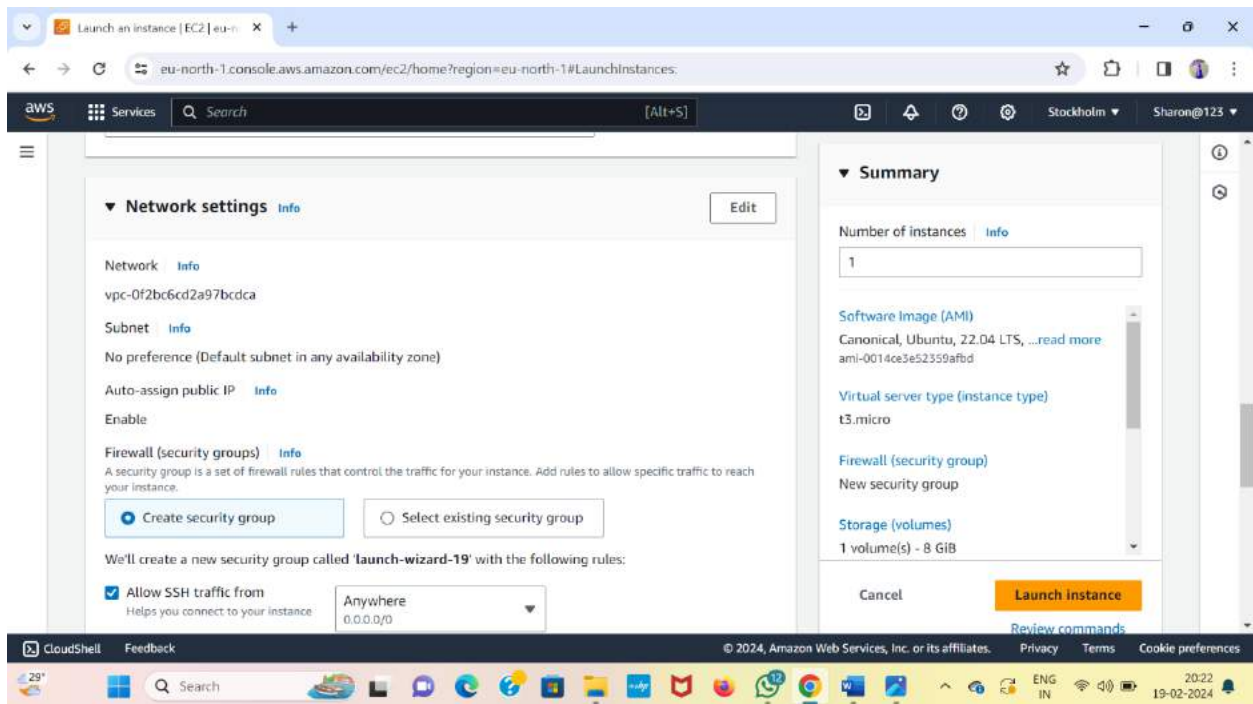
- Now Click a Create new key pair



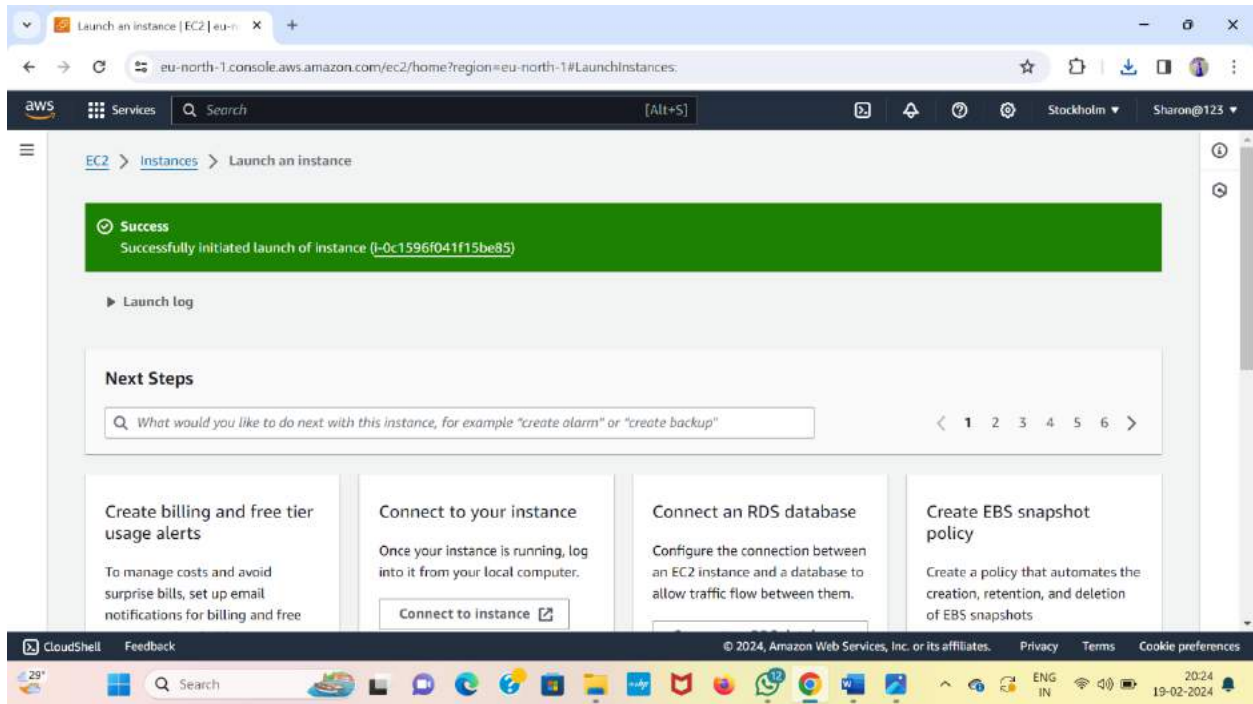
- Enter a key name and click on create key pair



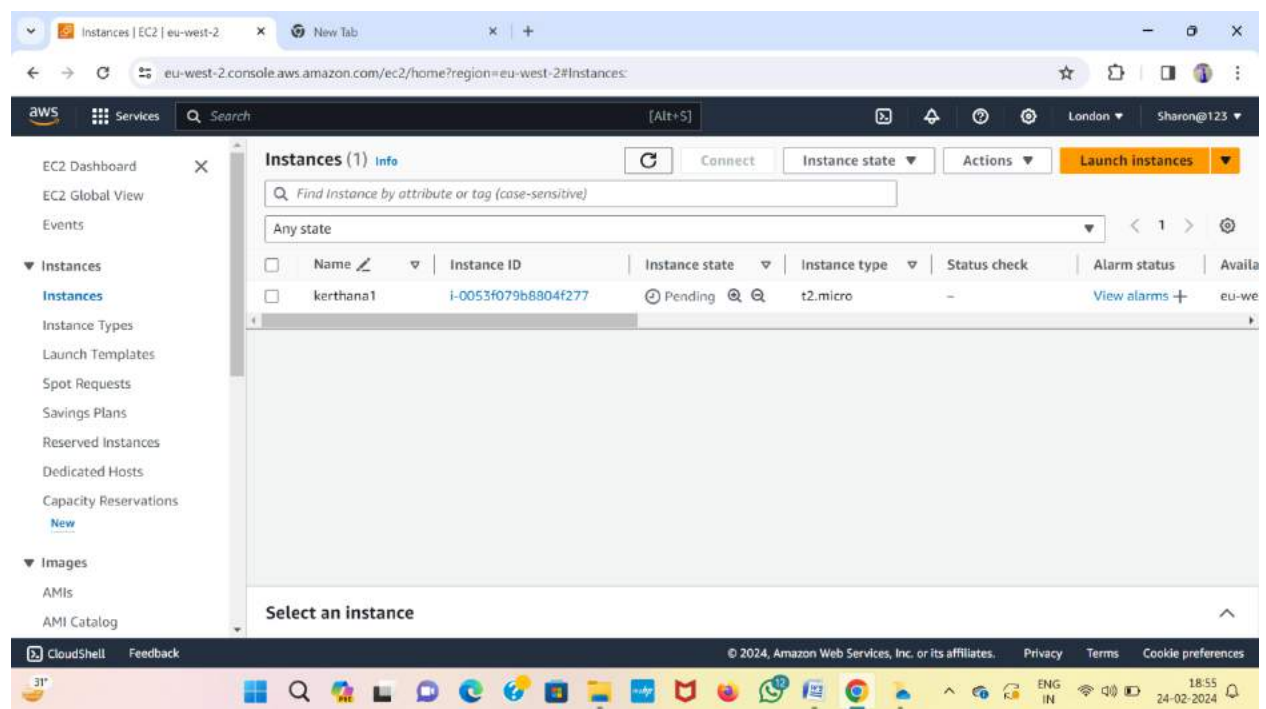
- Now Click on launch instance







- One server (or) Instance Created and Click on instance id then connect



Instance details | EC2 | eu-north-1

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#InstanceDetails:instanceId=i-0c1596f041f15be85

aws Services Search [Alt+S]

EC2 Dashboard EC2 Global View Events

Instances

Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts Capacity Reservations

Images AMIs AMI Catalog

EC2 > Instances > i-0c1596f041f15be85

### Instance summary for i-0c1596f041f15be85 (sharon1) info

Connect Instance state Actions

Updated less than a minute ago

Instance ID i-0c1596f041f15be85 (sharon1)	Public IPv4 address 13.49.46.157 <a href="#">open address</a>	Private IPv4 addresses 172.31.26.2
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-13-49-46-157.eu-north-1.compute.amazonaws.com <a href="#">open address</a>
Hostname type IP name: ip-172-31-26-2.eu-north-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-26-2.eu-north-1.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t3.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address 13.49.46.157 [Public IP]	VPC ID vpc-0f2bc6cd2a97bcdca	

CloudShell Feedback

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Connect to instance | EC2 | eu-north-1

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#ConnectToInstance:instanceId=i-0c1596f041f15be85

aws Services Search [Alt+S]

Instance ID  
i-0c1596f041f15be85 (sharon1)

Connection Type

☒ Connect using EC2 Instance Connect  
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

☐ Connect using EC2 Instance Connect Endpoint  
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address  
13.49.46.157

Username  
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

ubuntu

Note: In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Cancel Connect

CloudShell Feedback

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- Now Connected server

The screenshot shows the AWS CloudShell interface with a terminal window. The terminal displays the following text:

```
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-26-2:~$
```

Below the terminal window, the instance ID `i-0c1596f041f15be85` (sharon1) and its IP addresses (PublicIPs: 13.49.46.157, PrivateIPs: 172.31.26.2) are displayed.

- df -h this command check user size

The screenshot shows the AWS CloudShell interface with a terminal window. The terminal displays the following text:

```
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

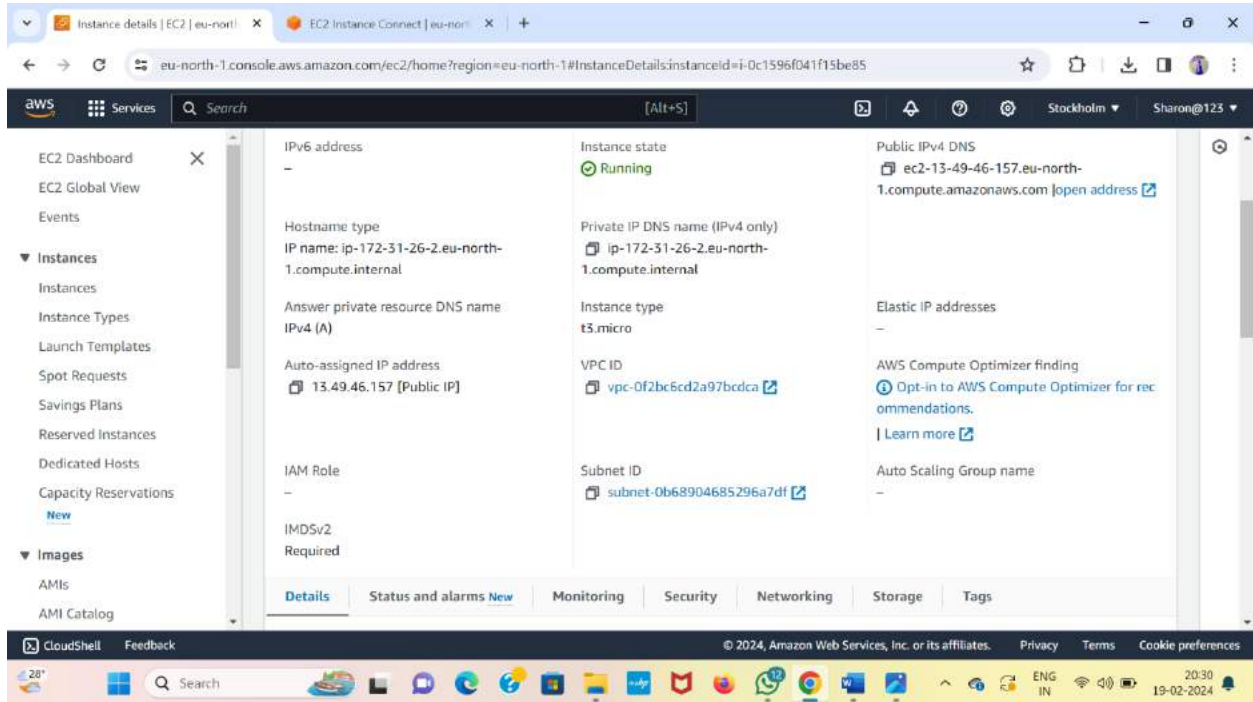
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

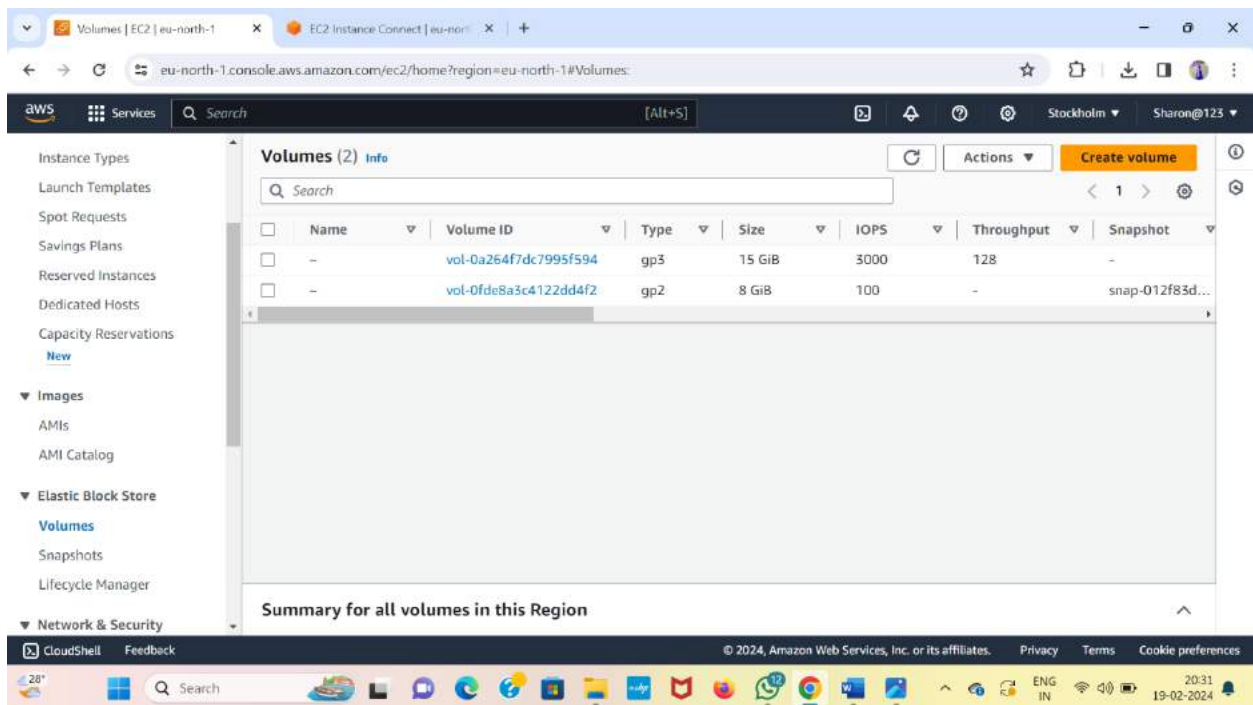
ubuntu@ip-172-31-26-2:~$ sudo -i
root@ip-172-31-26-2:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        7.6G  1.6G  6.0G  21% /
tmpfs            463M   0  463M   0% /dev/shm
tmpfs           185M  836K  185M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/nvme0n1p15  105M   6.1M   99M   6% /boot/efi
tmpfs            93M   4.0K   93M   1% /run/user/1000
root@ip-172-31-26-2:~#
```

Below the terminal window, the instance ID `i-0c1596f041f15be85` (sharon1) and its IP addresses (PublicIPs: 13.49.46.157, PrivateIPs: 172.31.26.2) are displayed.

- Now go to ebs then volumes



- Click on Create Volume



- Enter the size what ever you want then select same availability zone of EC2 then create volume

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#CreateVolume:

### Volume settings

Volume type [Info](#)  
General Purpose SSD (gp3)

[General Purpose SSD gp3 is now the default selection. gp3 provides up to 20% lower cost per GB than gp2. \[Learn More\]\(#\)](#)

Size (GiB) [Info](#)  
20  
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)  
3000  
Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s) [Info](#)  
125  
Min: 125 MiB, Max: 1000 MiB, Baseline: 125 MiB/s.

### Tags - optional [Info](#)

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

No tags associated with the resource.

[Add tag](#)  
You can add 50 more tags.

### Snapshot summary [Info](#)

[Click refresh to view backup information](#)  
The volume type that you select and the tags that you assign determine whether the volume will be backed up by any Data Lifecycle Manager policies.

[Cancel](#) [Create volume](#)

- After Create a volume see the status of created volume it is available state is showing.
- Select that volume and attach volume to our first instance.
- After Attach volume that should be disable. And detach is enable.

Successfully created volume vol-07522308a1e6deec2.

**Volumes (3)** Info

	IOPS	Throughput	Snapshot	Created	Availability Zone	Volume state
	3000	128	-	2024/02/18 13:12 GMT+5:...	eu-north-1b	Available
	100	-	snap-012f83d...	2024/02/19 20:24 GMT+5:...	eu-north-1a	In-use
	3000	125	-	2024/02/19 20:33 GMT+5:...	eu-north-1a	Available

Summary for all volumes in this Region

Successfully created volume vol-07522308a1e6deec2.

**Volumes (1/3)** Info

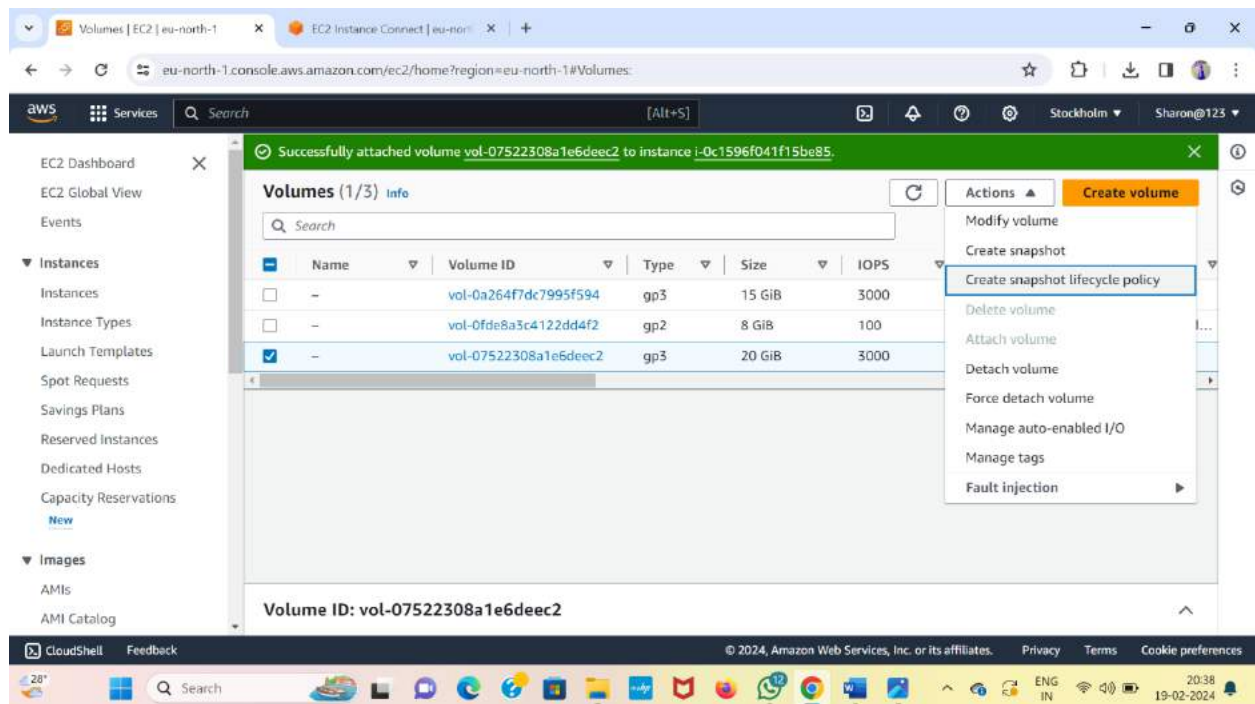
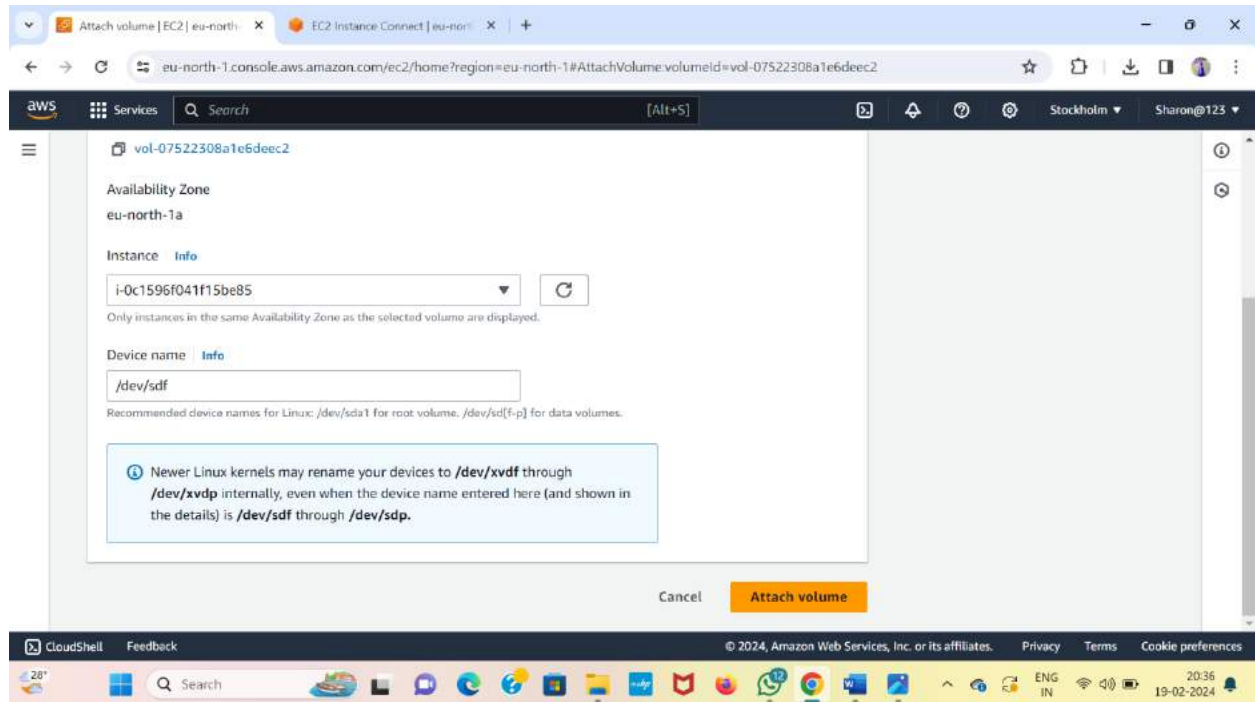
	Name	Volume ID	Type	Size	IOPS
<input type="checkbox"/>	-	vol-0a264f7dc7995f594	gp3	15 GiB	3000
<input type="checkbox"/>	-	vol-0fde8a3c4122dd4f2	gp2	8 GiB	100
<input checked="" type="checkbox"/>	-	vol-07522308a1e6deec2	gp3	20 GiB	3000

Volume ID: vol-07522308a1e6deec2

Actions menu options:

- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Attach volume
- Detach volume
- Force detach volume
- Manage auto-enabled I/O
- Manage tags
- Fault injection





- Now Go to EC2 Connected server

- Enter Command for volume is attached or not
- Command is “**lsblk**”

```

Filesystem      Size  Used Avail Use% Mounted on
/dev/root        7.6G  1.6G  6.1G  21% /
tmpfs            463M   0  463M   0% /dev/ahm
tmpfs            185M 844K  185M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/nvme0n1p15  105M  6.1M   99M   6% /boot/efi
tmpfs            93M  4.0K   93M   1% /run/user/1000
root@ip-172-31-44-8:~# lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0         7:0    0  24.9M  1 loop /snap/amazon-ssm-agent/7628
loop1         7:1    0  55.7M  1 loop /snap/core18/2812
loop2         7:2    0  63.5M  1 loop /snap/core20/2015
loop3         7:3    0 111.9M  1 loop /snap/lxd/24322
loop4         7:4    0  40.9M  1 loop /snap/snapd/20290
nvme0n1       259:0    0     8G  0 disk 
├─nvme0n1p1    259:1    0   7.9G  0 part /
├─nvme0n1p14   259:2    0     4M  0 part 
├─nvme0n1p15   259:3    0  106M  0 part /boot/efi
└─nvme1n1      259:4    0    15G  0 disk 
root@ip-172-31-44-8:~#
  
```

- First to check file system is there or not then create new File system in volume
- Command is **mkfs –t xfs /dev/xvdf**
- To Check file system created or not command is **file –s /dev/xvdf**
- Create directories and mount the volume to directories  
Command is  
**mkdir –p vcube/batch**  
**mount /dev/xvdf vcube/batch**  
**cd vcube/batch**  
**mkdir 124 145**  
**vi file1**  
**ls – see the list files and directories**  
**cd**  
**umount /dev/xvdf vcube/batch**





Media Player EC2 Instance Connect [eu-north-1] X

eu-north-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-022c9bcddeb3381b2&osUser=ubuntu&r...

aws Services Search [Alt+S]

cube\_snap  
root@ip-172-31-45-145:~# cd cube  
root@ip-172-31-45-145:~/cube# ls  
square  
root@ip-172-31-45-145:~/cube# cd  
root@ip-172-31-45-145:~# mount /dev/nvme1n1 cube/square  
root@ip-172-31-45-145:~# cd cube/square  
root@ip-172-31-45-145:~/cube/square# ls  
root@ip-172-31-45-145:~/cube/square# mkdir 314 578  
root@ip-172-31-45-145:~/cube/square# vi file1  
root@ip-172-31-45-145:~/cube/square# cd file1  
-bash: cd: file1: Not a directory  
root@ip-172-31-45-145:~/cube/square# cat file1  
  
good morning to all  
have a nice day  
root@ip-172-31-45-145:~/cube/square# umount /dev/nvme1n1 cube/square  
umount: /root/cube/square: target is busy.  
umount: cube/square: no mount point specified.  
root@ip-172-31-45-145:~/cube/square#

i-022c9bcddeb3381b2 (instance1)

PublicIPs: 51.20.2.199 PrivateIPs: 172.31.45.145

00:02:06 00:04:58

EC2 Instance Connect | eu-north-1 - Google Chr...

CloudShell Feedback

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27' Search

ENG IN 21:09 19-02-2024

Volumes [EC2] us-east-1 X EC2 Instance Connect [us-east-1] X

https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0793456c258c948b9

aws Services Search [Alt+S]

/dev/xvdf: 8Gi XFS filesystem data (blkz 4096, ino6z 512, v2 dirv)  
root@ip-172-31-82-214:~# mkdir -p vcube/batch  
root@ip-172-31-82-214:~# mount /dev/xvdf vcube/batch  
root@ip-172-31-82-214:~# ls  
snap vcube  
root@ip-172-31-82-214:~# cd vcube/batch  
root@ip-172-31-82-214:~/vcube/batch# mkdir 124 145  
root@ip-172-31-82-214:~/vcube/batch# vi file1  
root@ip-172-31-82-214:~/vcube/batch# ls  
124 145 file1  
root@ip-172-31-82-214:~/vcube/batch# cd  
root@ip-172-31-82-214:~# lsblk  

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINTS
loop0	7:0	0	24.9M	1	loop	/snap/amazon-ssm-agent/7628
loop1	7:1	0	55.7M	1	loop	/snap/core18/2812
loop2	7:2	0	63.5M	1	loop	/snap/core20/2015
loop3	7:3	0	111.9M	1	loop	/snap/lxd/24322
loop4	7:4	0	40.9M	1	loop	/snap/snapd/20290
xvda	202:0	0	8G	0	disk	
xvda1	202:1	0	7.9G	0	part	/
xvda14	202:14	0	4M	0	part	
xvda15	202:15	0	106M	0	part	/boot/efi
xvdf	202:80	0	5G	0	disk	/root/vcube/batch

  
root@ip-172-31-82-214:~# umount /dev/xvdf vcube/batch

i-0793456c258c948b9 (Assign-ec1)

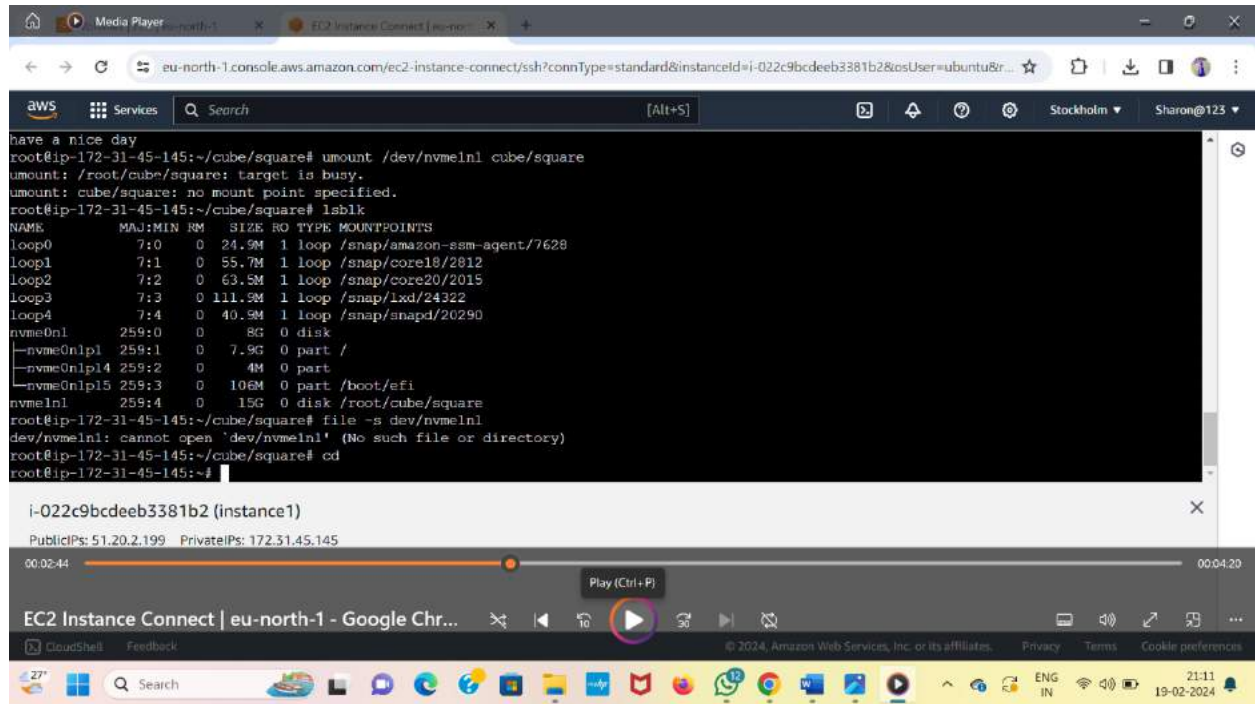
PublicIPs: 3.93.82.50 PrivateIPs: 172.31.82.214

Activate Windows  
Go to Settings to activate Windows.

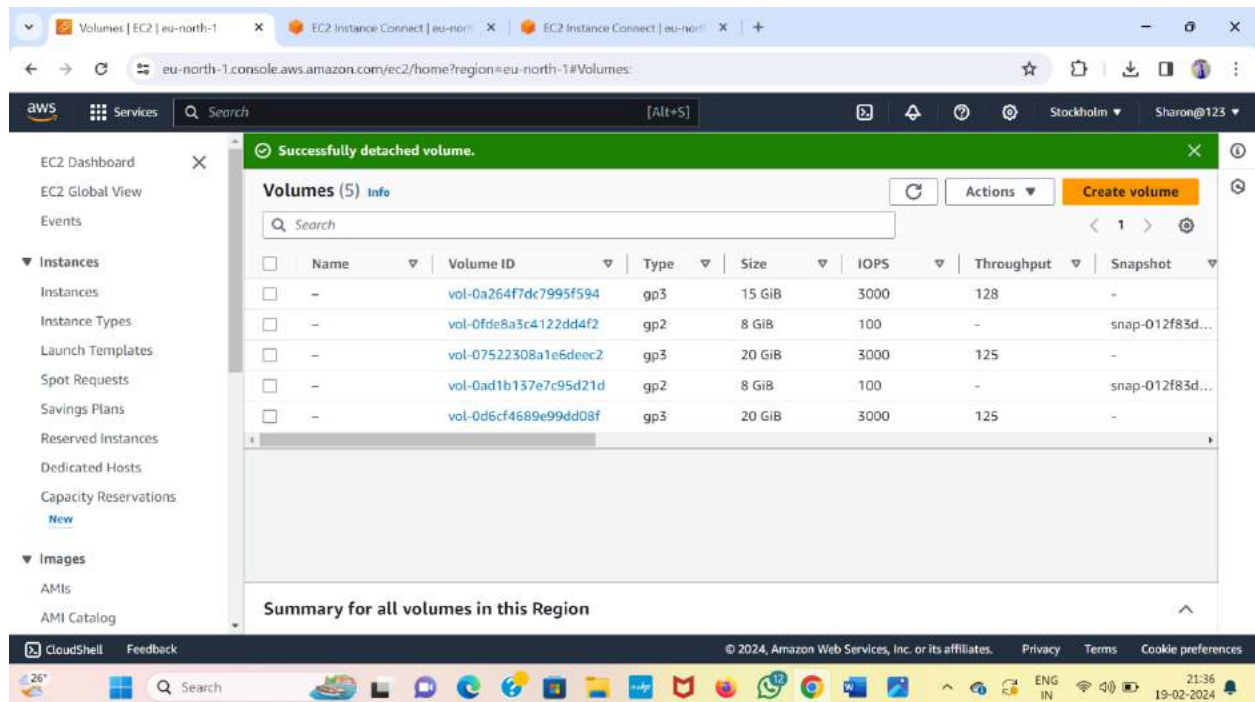
CloudShell Feedback

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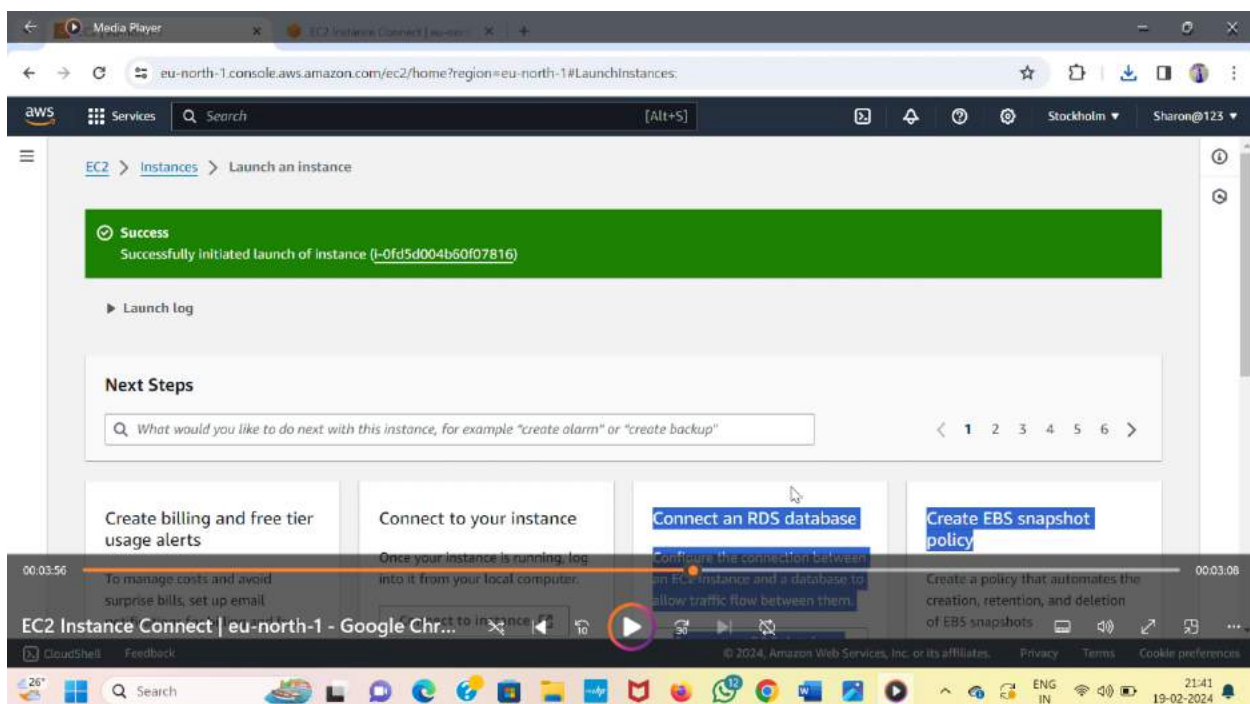
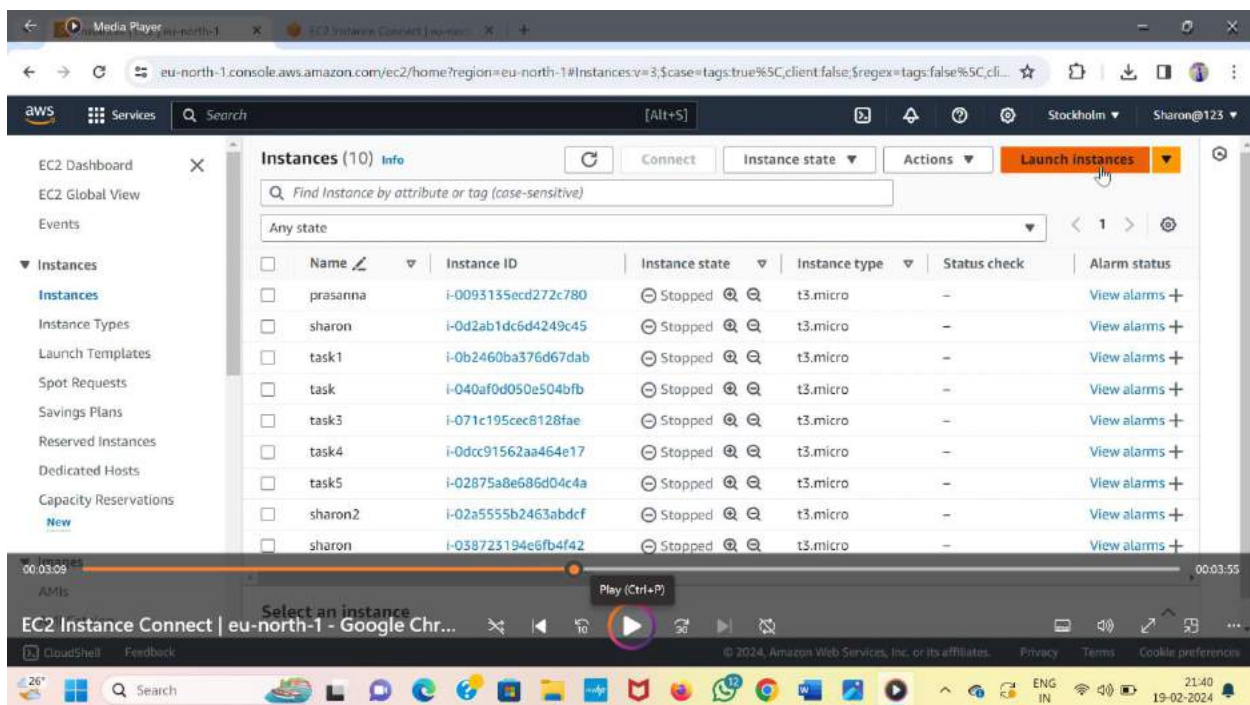
ENG IN 3:32 PM 2/18/2024



- Now go to Volumes and detach the volume to instance

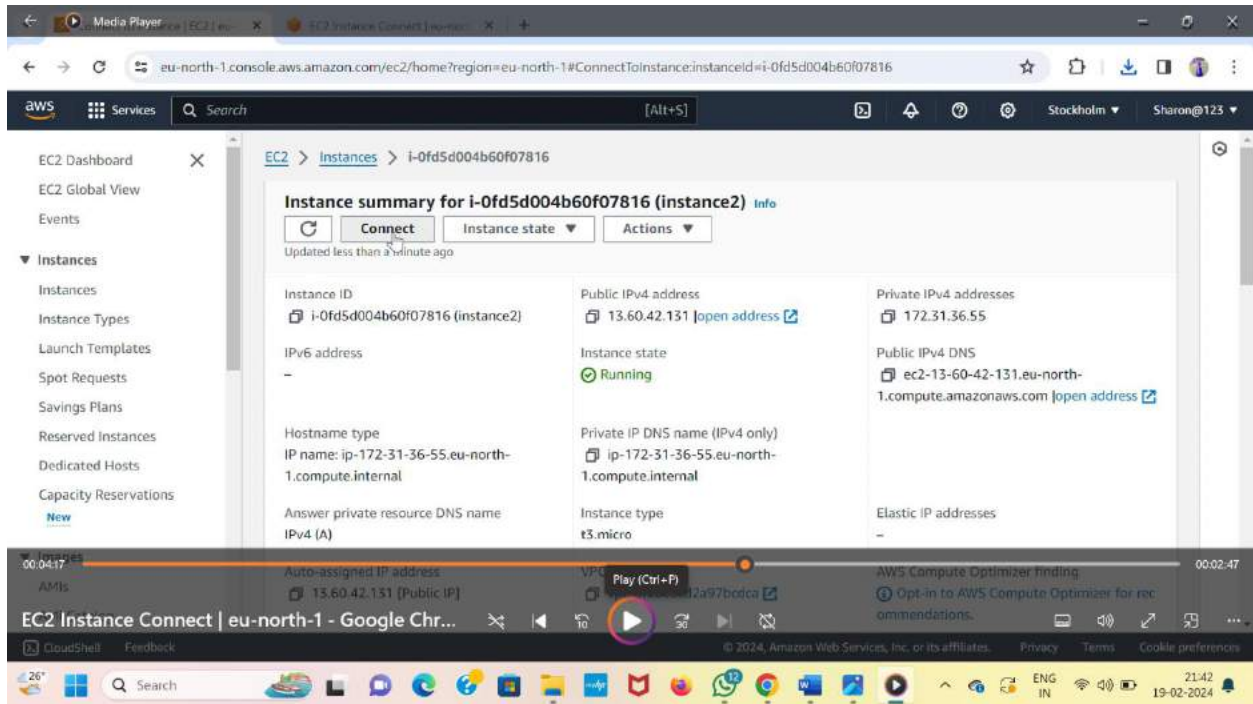


- Now to EC2 Instance and create one more instance in same availability zone

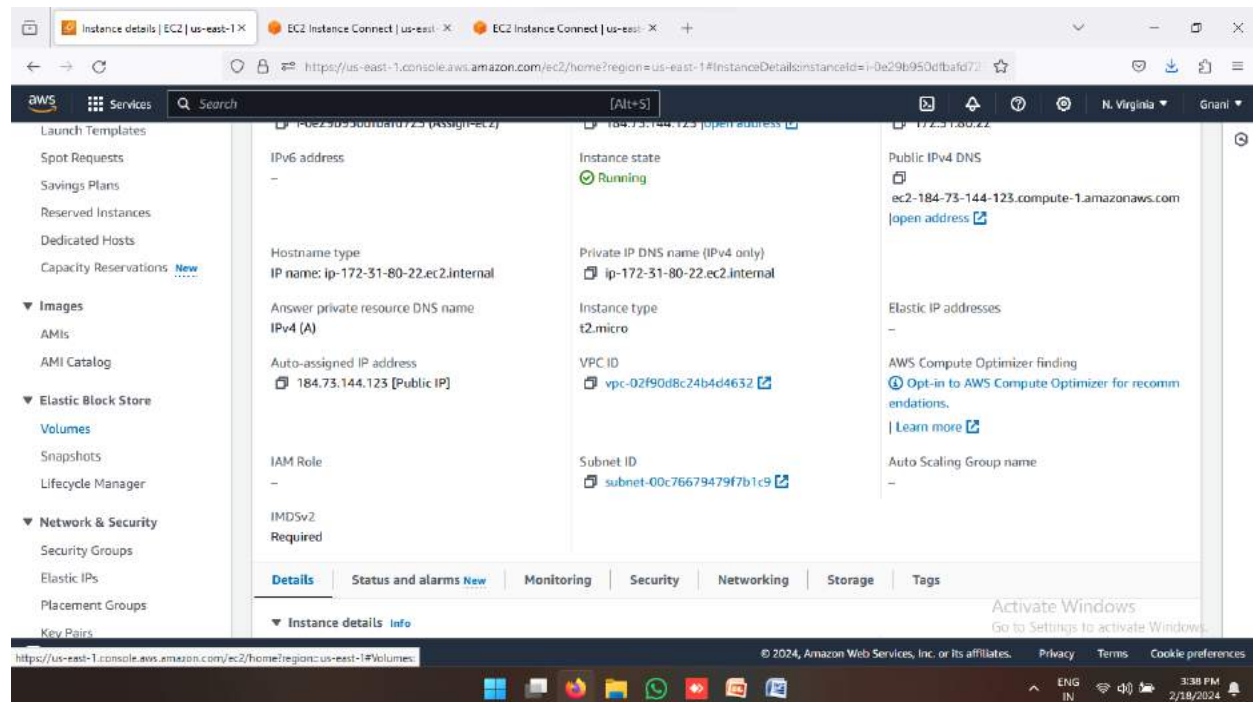




- After Creating Instance go to instance id and connect the instance



- Now go to Volumes and attach the already created volume attach to second instance



Media Player

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#Volumes:

Services Search [Alt+S]

Stockholm Sharon@123

New

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Successfully detached volume.

Volumes (1/3) Info

Search

IOPS Throughput Snapshot Created Availability

3000	125	-	2024/02/18 10:43 GMT+5...	eu-north-
100	-	snap-012f83d...	2024/02/18 10:41 GMT+5...	eu-north-
100	-	snap-012f83d...	2024/02/18 10:55 GMT+5...	eu-north-

Actions

- Create volume
- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Attach volume
- Detach volume
- Force detach volume
- Manage auto-enabled I/O
- Manage tags
- Fault injection

Volume ID: vol-0101c87a0d30b7aef

EC2 Instance Connect | eu-north-1 - Google Chr...

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26° Search

ENG IN 21:44 19-02-2024

Media Player

eu-north-1.console.aws.amazon.com/ec2/home?region=eu-north-1#AttachVolume:volumeId=vol-0101c87a0d30b7aef

Services Search [Alt+S]

Stockholm Sharon@123

EC2 > Volumes > vol-0101c87a0d30b7aef > Attach volume

## Attach volume

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID

vol-0101c87a0d30b7aef

Availability Zone

eu-north-1b

Instance

Info

Device name

Info

Only instances in this same Availability Zone as the selected volume are displayed.

EC2 Instance Connect | eu-north-1 - Google Chr...

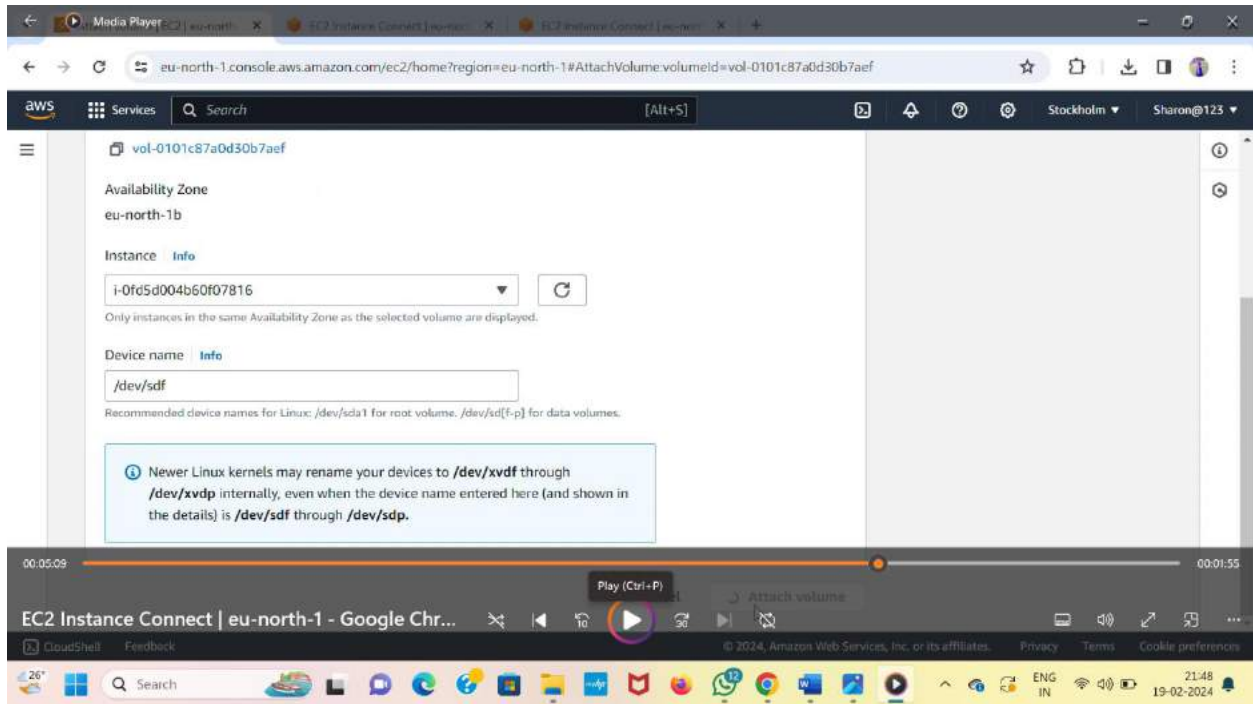
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26° Search

ENG IN 21:46 19-02-2024

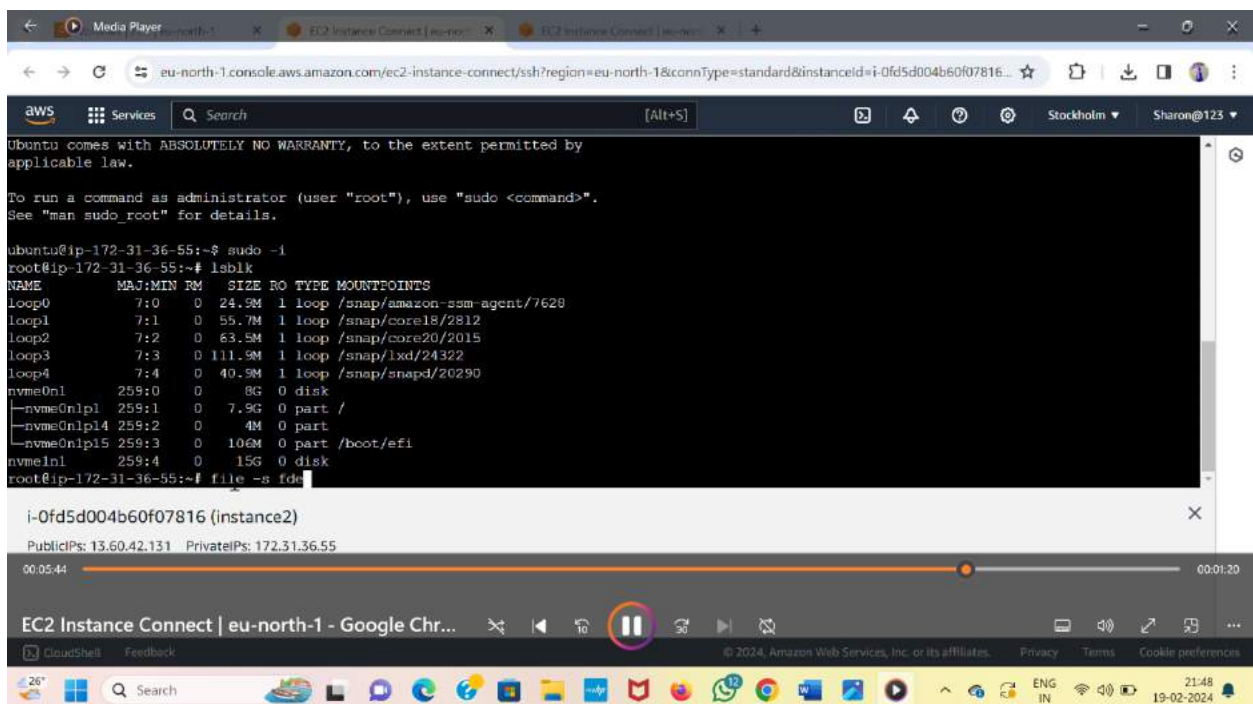


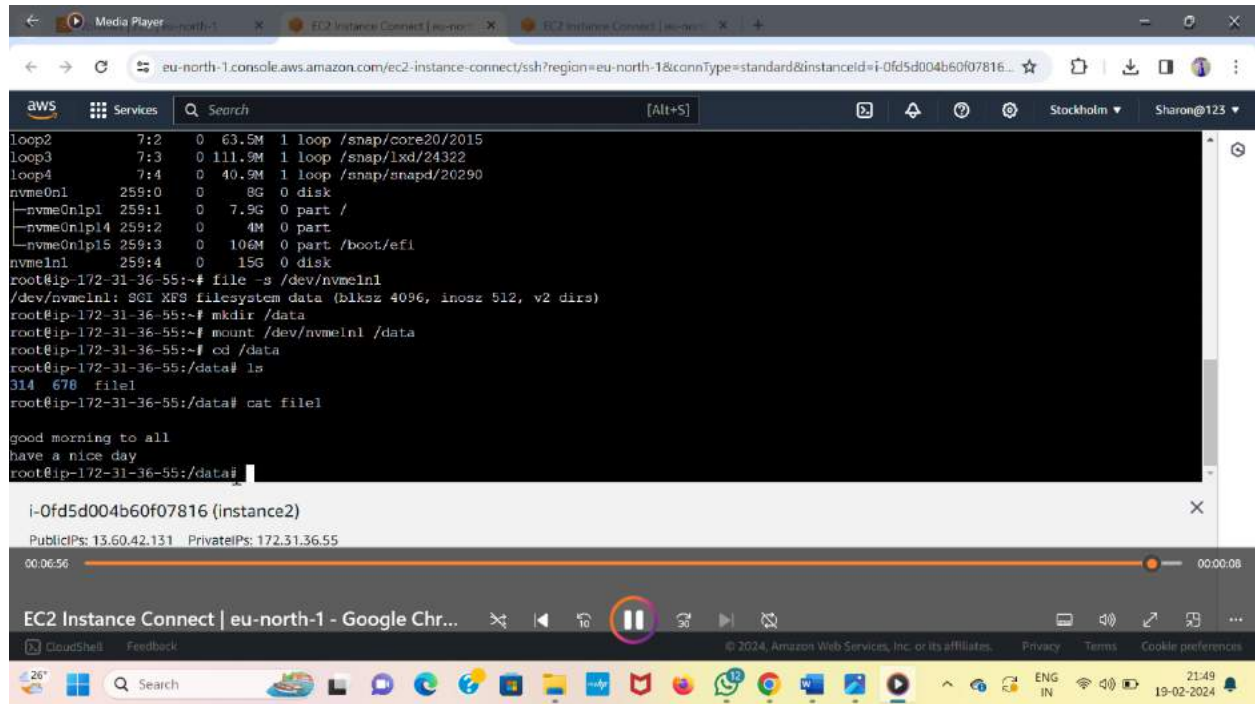


After Attach volume to check the file system is there or not

Then see the data in volume Command is

- **File** `—s /dev/xvdf`
- **Mkdir** `/data`
- **Mount** `/dev/xvdf /data`
- **Cd** `/data`
- **Ls**





\*\*\*\*\* END \*\*\*\*\*