



ASSIGNMENT – 01

COURSE : DEVOPS

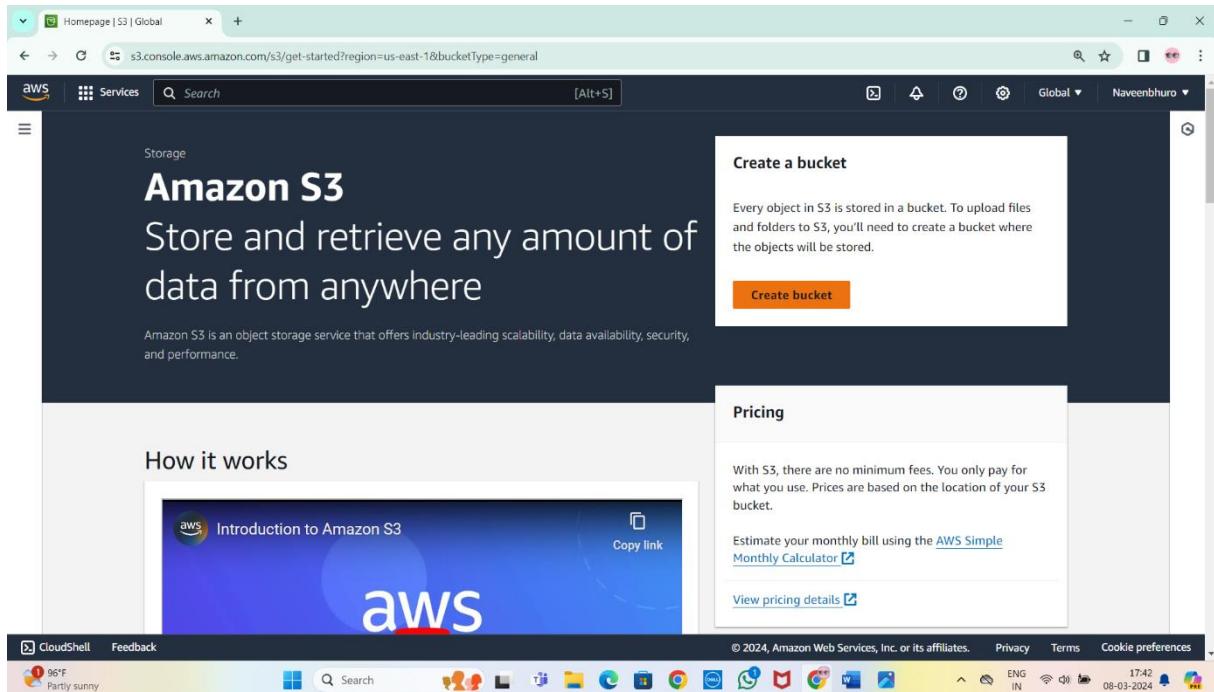
Trainer : Mr . MADHUKAR

NAME : VISLAVATH NAVEEN

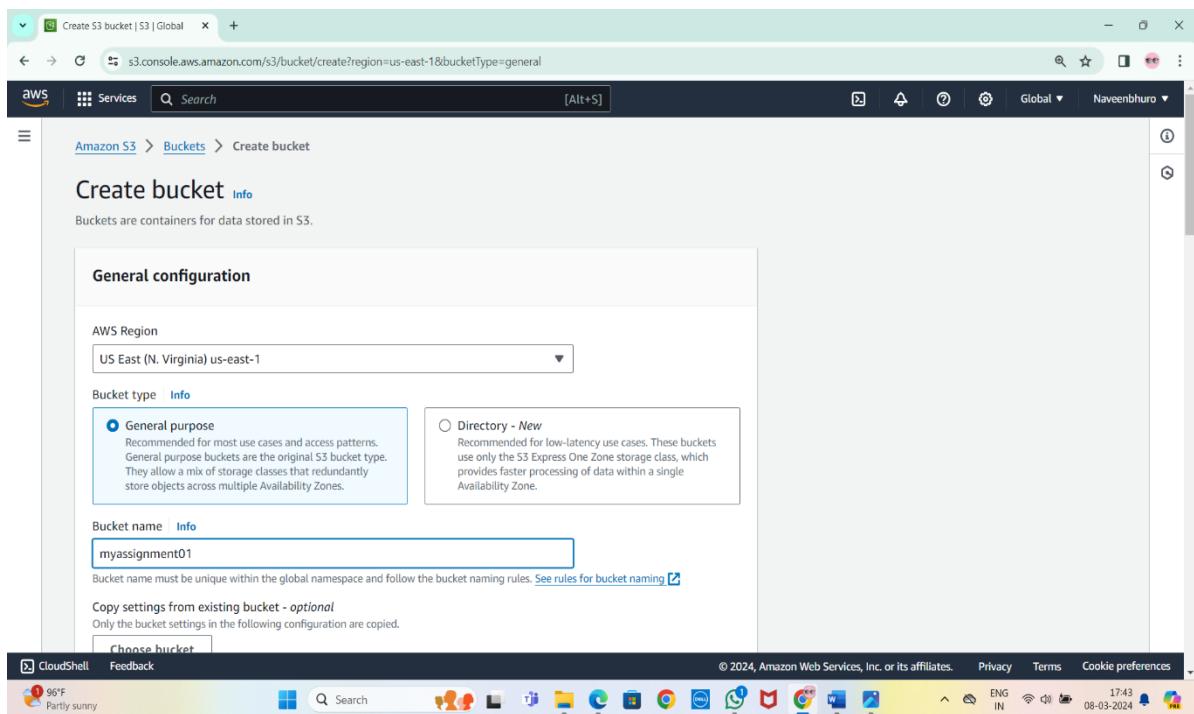
Mail id : naveenvislavath61@gmail.com

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

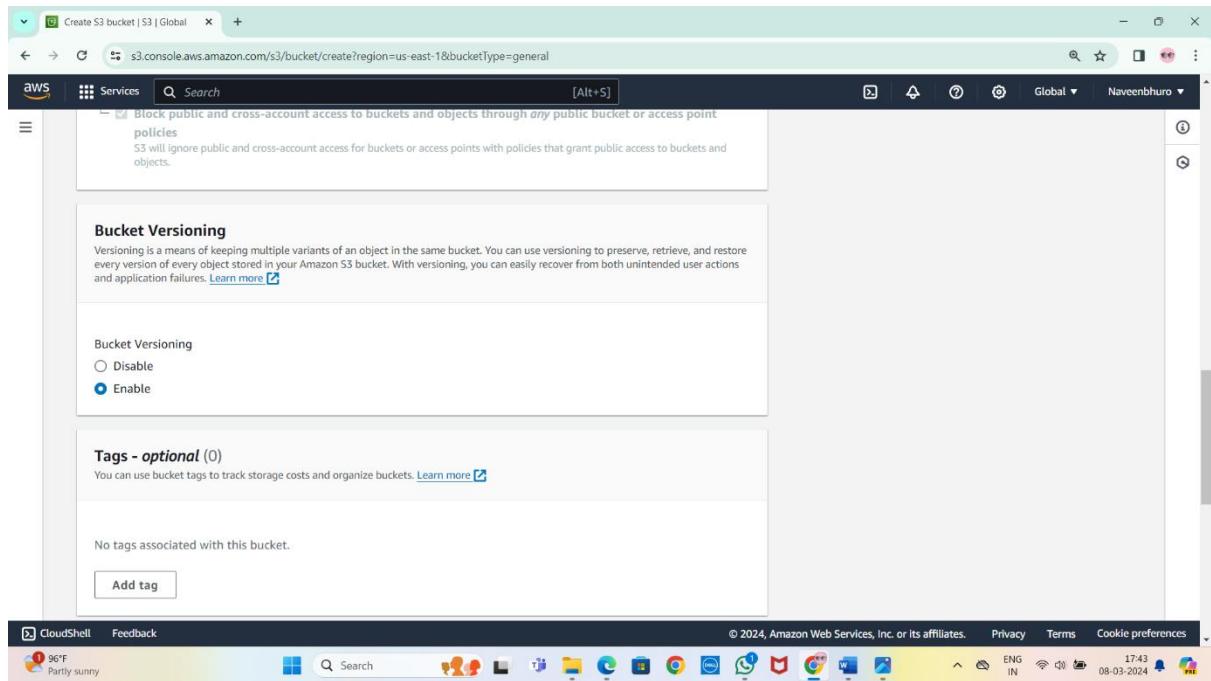
- Go to Amazon S3, Click on Create Bucket.



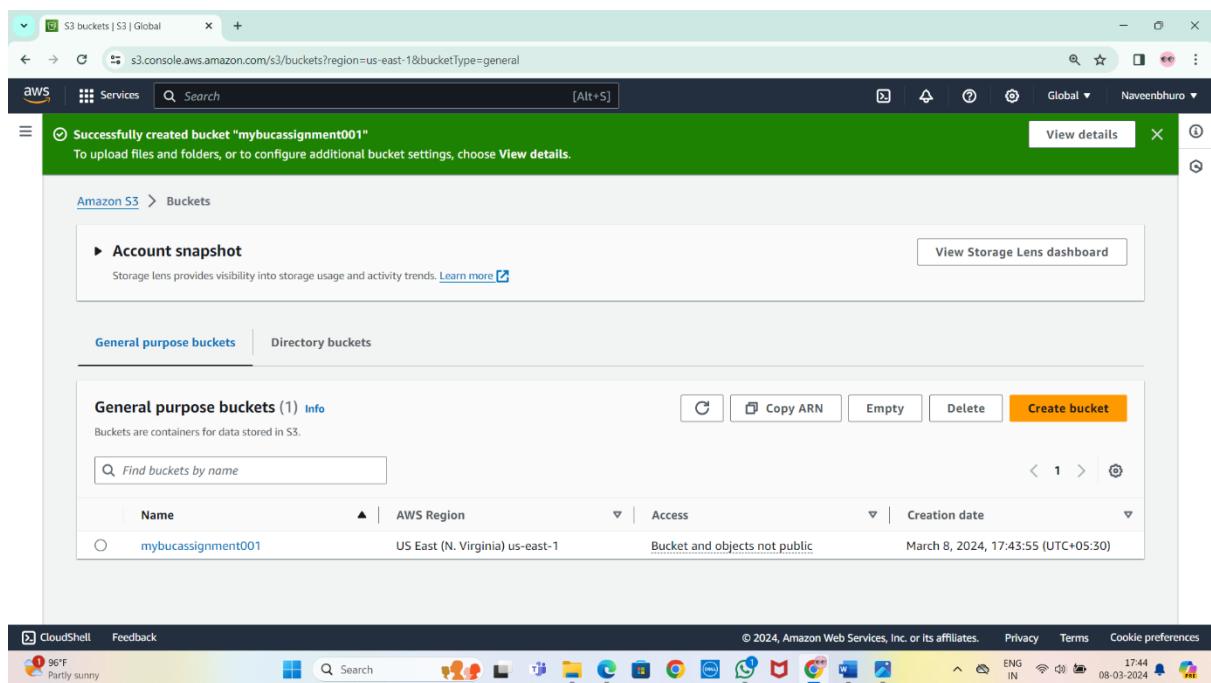
- Enter Bucket Name and Select Any one Region



➤ Enable Bucket Version



➤ After that Click on Create Bucket



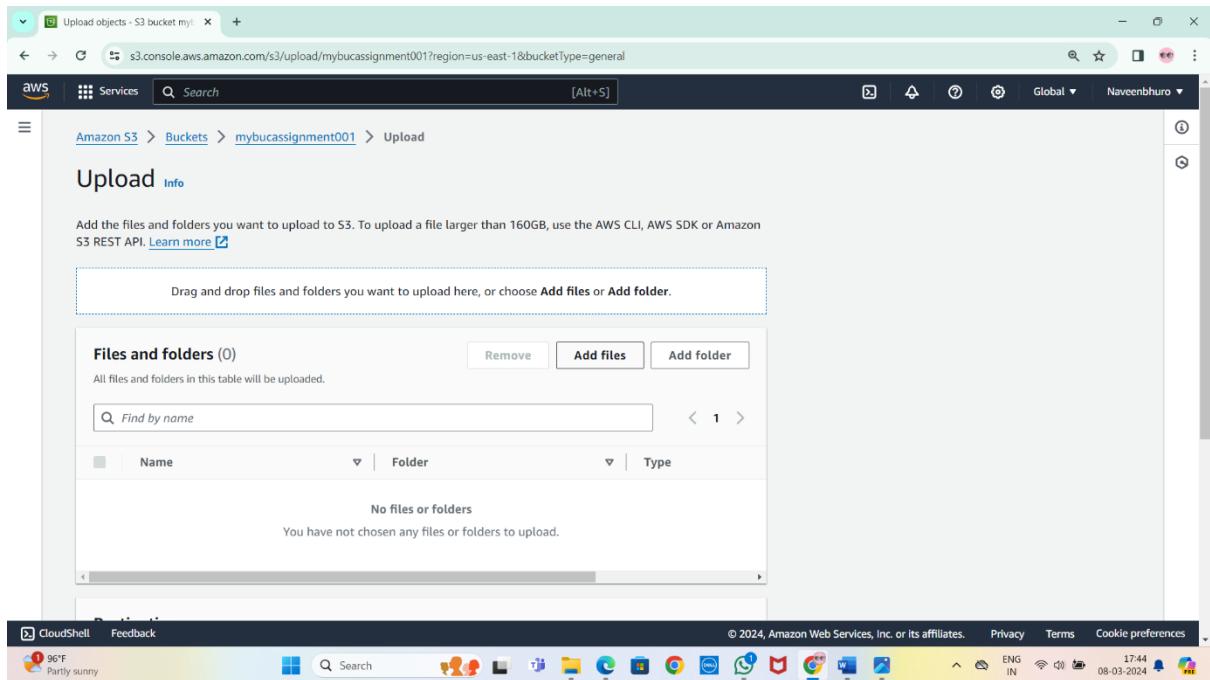
- One more bucket created in different region.
- Now see the 2 Buckets in different region.

The screenshot shows the AWS S3 console with the URL <https://s3.console.aws.amazon.com/s3/buckets?region=us-east-2&bucketType=general>. A green banner at the top indicates "Successfully created bucket 'mybucassignment002'". Below the banner, the "Account snapshot" section is visible, followed by the "General purpose buckets" and "Directory buckets" tabs. Under "General purpose buckets", there are two entries:

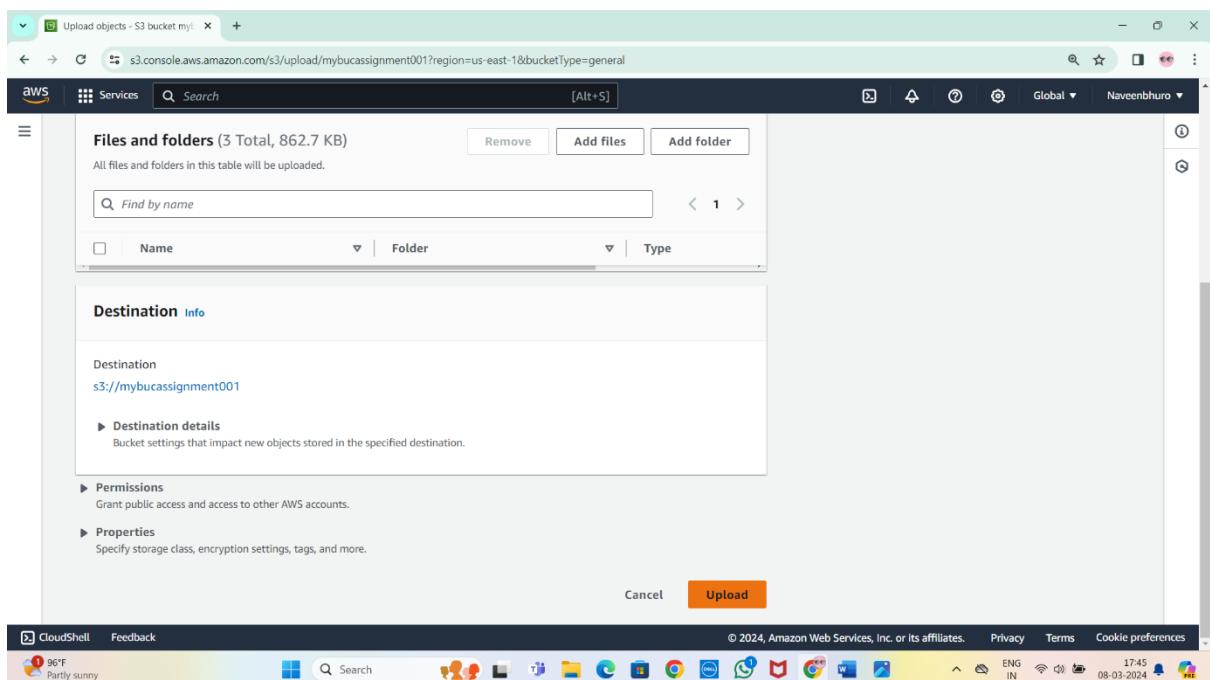
Name	AWS Region	Access	Creation date
mybucassignment001	US East (N. Virginia) us-east-1	Bucket and objects not public	March 8, 2024, 17:43:55 (UTC+05:30)
mybucassignmentnet002	US East (Ohio) us-east-2	Bucket and objects not public	March 8, 2024, 17:44:36 (UTC+05:30)

➤ Now go to first bucket and click on upload.

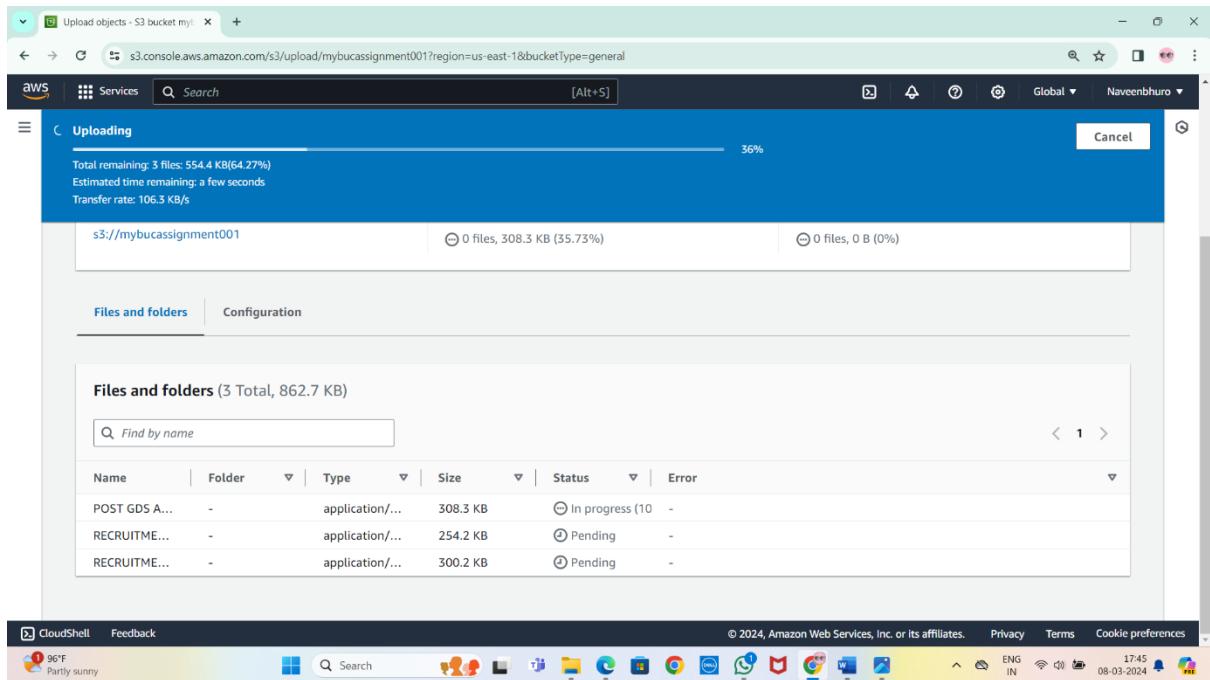
The screenshot shows the AWS S3 Objects page for the "mybucassignment001" bucket, with the URL <https://s3.console.aws.amazon.com/s3/buckets/mybucassignment001?region=us-east-1&bucketType=general&tab=objects>. The page displays the "Objects" tab. At the top, there are buttons for "Upload" and "Actions". Below the table, a message states: "No objects. You don't have any objects in this bucket." There is a prominent "Upload" button.



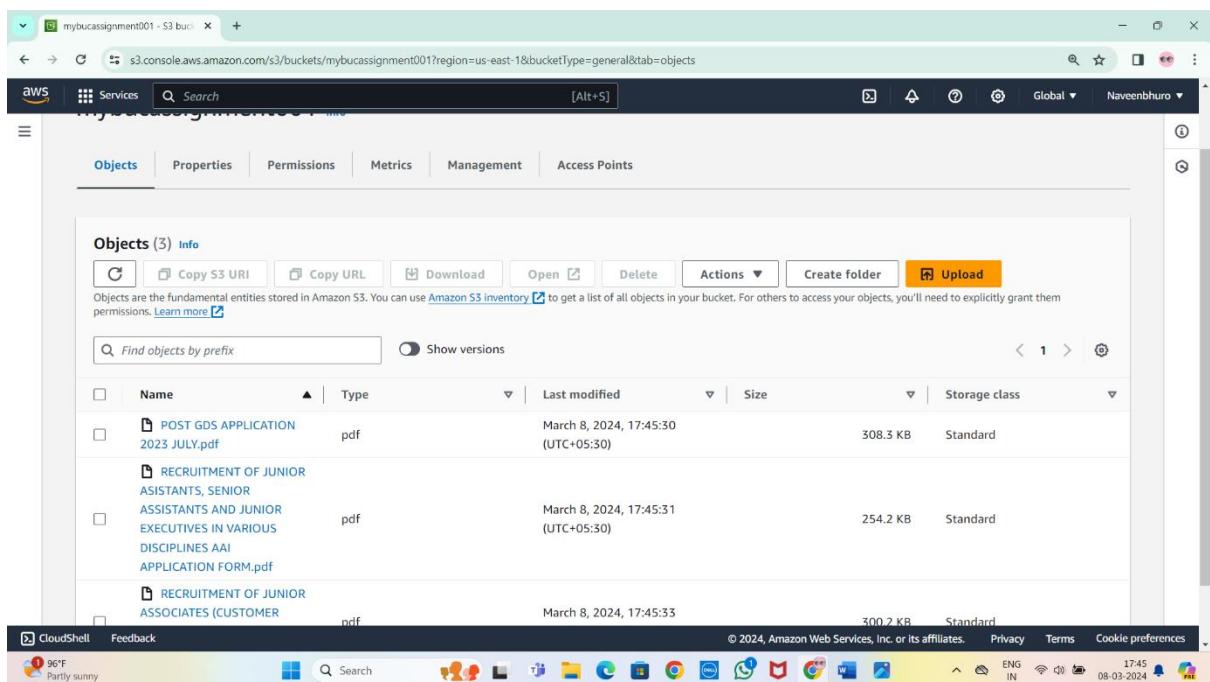
➤ Then Add Files and Add Folders then upload.

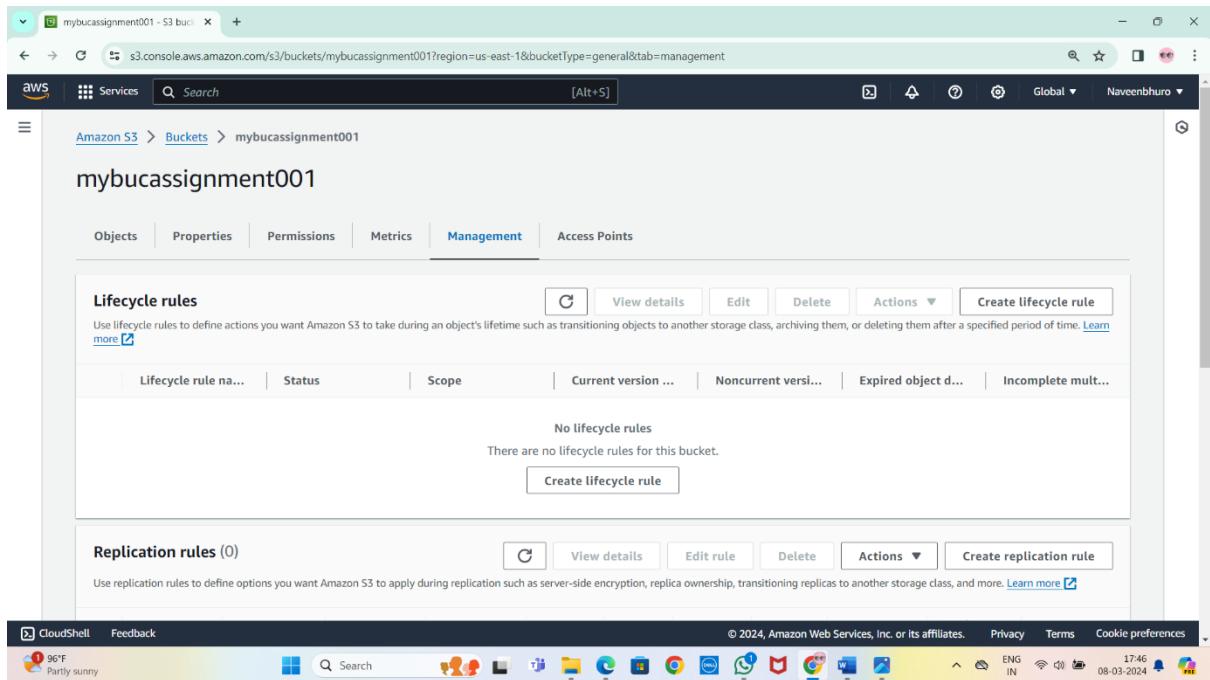


- Click on Upload.

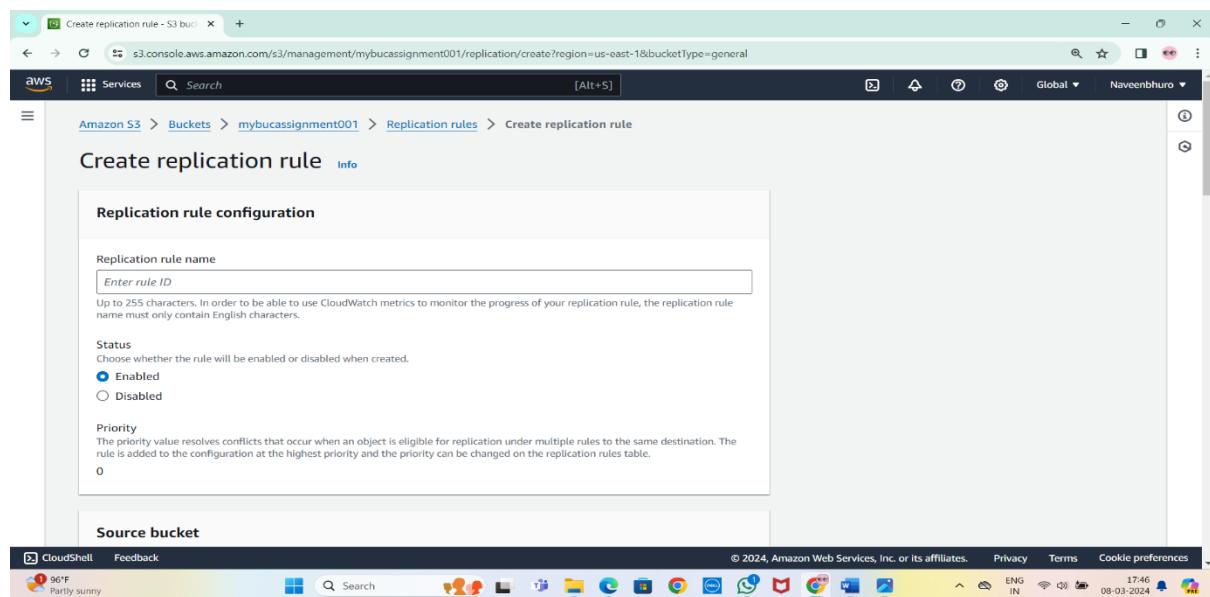


- Uploading Files and Folders.
- Now go to Management in first bucket (or) Source Bucket.

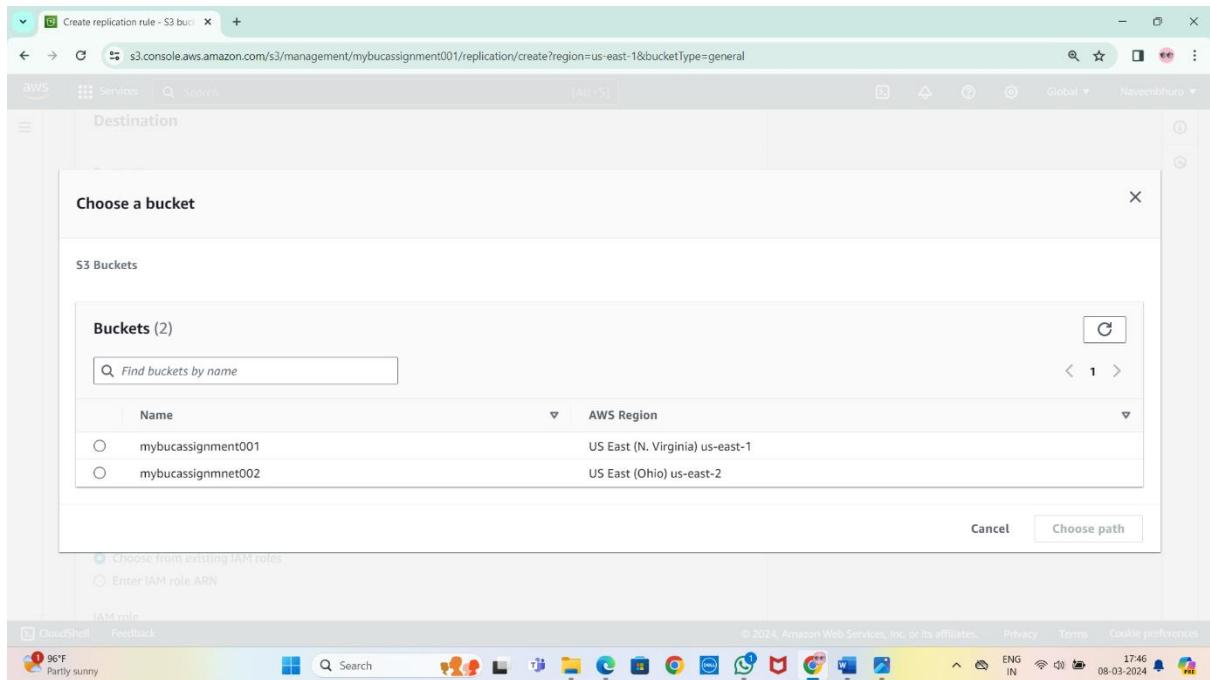




- In Management Console click on create Replication Rule.



- Click on Apply to all objects in he bucket.
- Now Choose Destination where ever you want to see the data.
- Choose a bucket in this account.
- Select another region Bucket (or) Where ever you want to see the data that bucket select and click on choose path.



- Select & 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.
- 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.

The screenshot shows the AWS S3 Batch Operations console. At the top, a green banner indicates a successful job creation: "Successfully created job ID a092adfa-8487-427b-b914-96d8152c7890". Below this, the "Batch Operations" page displays a table of jobs. The table has columns for Job ID, Status, Description, Operation, Date created, Total objects, % Complete, Total failed (rate), and Priority. One job is listed:

Job ID	Status	Description	Operation	Date created	Total objects	% Complete	Total failed (rate)	Priority
a092adfa-8487-427b-b914-96d8152c7890	New	2024-03-08 - Replicate	Replicate	March 8, 2024, 17:53:36 (UTC+05:30)	Not yet available	0%	0 (0%)	10

At the bottom of the page, there are links for CloudShell, Feedback, and a system status bar showing the date and time.

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

The screenshot shows the AWS S3 Batch Operations console. A green banner at the top indicates a successful job creation: "Successfully created job ID a092adfa-8487-427b-b914-96d8152c7890". Below this, the "Batch Operations" page displays a table of jobs. The table has columns for Job ID, Status, Description, Operation, Date created, Total objects, % Complete, Total failed (rate), and Priority. One job is listed:

Job ID	Status	Description	Operation	Date created	Total objects	% Complete	Total failed (rate)	Priority
a092adfa-8487-427b-b914-96d8152c7890	Active	2024-03-08 - Replicate	Replicate	March 8, 2024, 17:53:36 (UTC+05:30)	3	0%	0 (0%)	10

At the bottom of the page, there are links for CloudShell, Feedback, and a system status bar showing the date and time.

Amazon S3 > Buckets

General purpose buckets (2)

Name	AWS Region	Access	Creation date
mybucassignment001	US East (N. Virginia) us-east-1	Bucket and objects not public	March 8, 2024, 17:43:55 (UTC+05:30)
mybucassigmnet002	US East (Ohio) us-east-2	Bucket and objects not public	March 8, 2024, 17:44:36 (UTC+05:30)

➤ Now See the data in Destination Bucket.

Amazon S3 > mybucassigmnet002

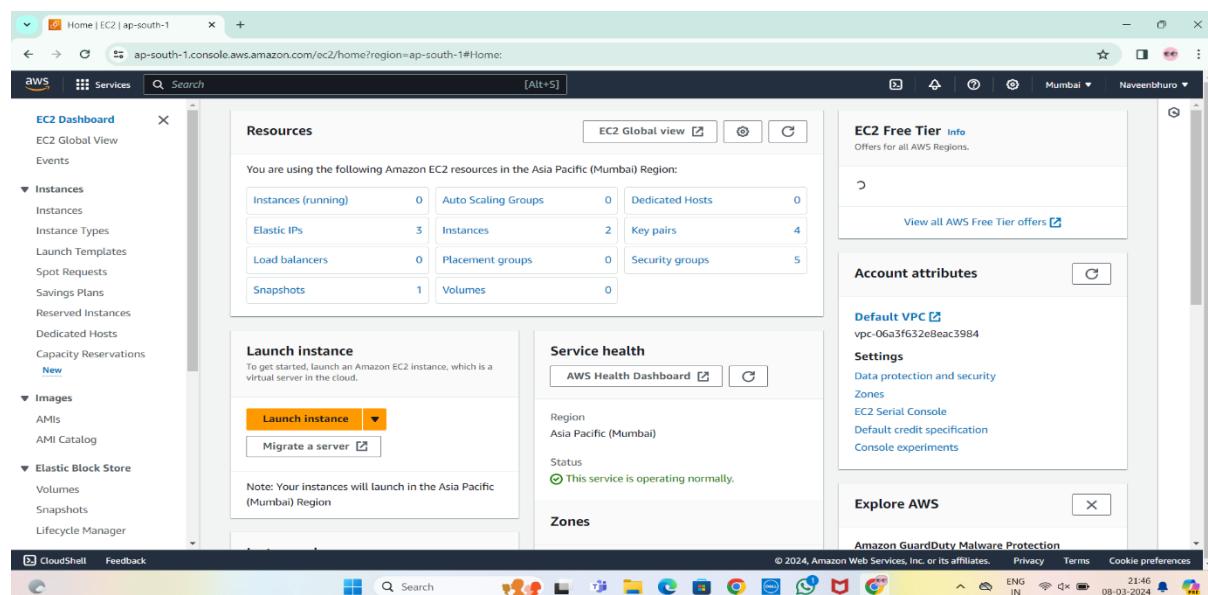
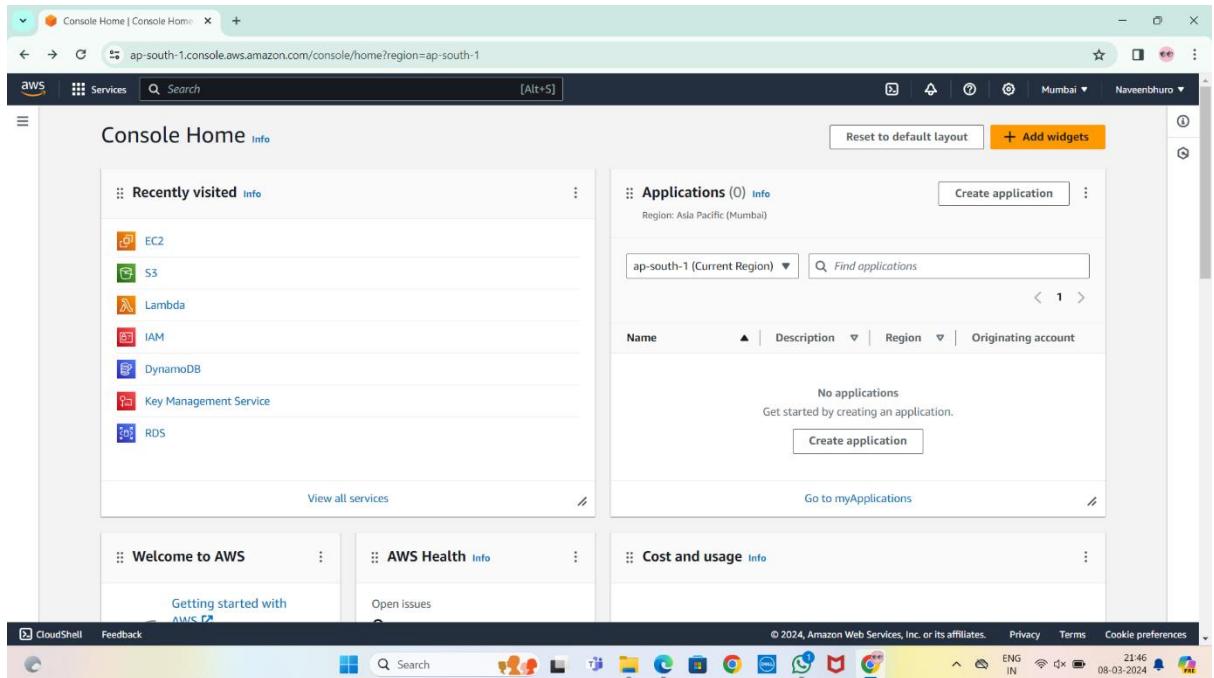
Objects (3)

Name	Type	Last modified	Size	Storage class
job-a092adfa-8487-427b-b914-96d8152c7890/	Folder	-	-	-
POST GDS APPLICATION 2023 JULY.pdf	pdf	March 8, 2024, 17:45:30 (UTC+05:30)	308.3 KB	Standard
RECRUITMENT OF JUNIOR ASSISTANTS, SENIOR ASSISTANTS AND JUNIOR EXECUTIVES IN VARIOUS DISCIPLINES AAI APPLICATION FORM.pdf	pdf	March 8, 2024, 17:45:51 (UTC+05:30)	254.2 KB	Standard

***** END *****

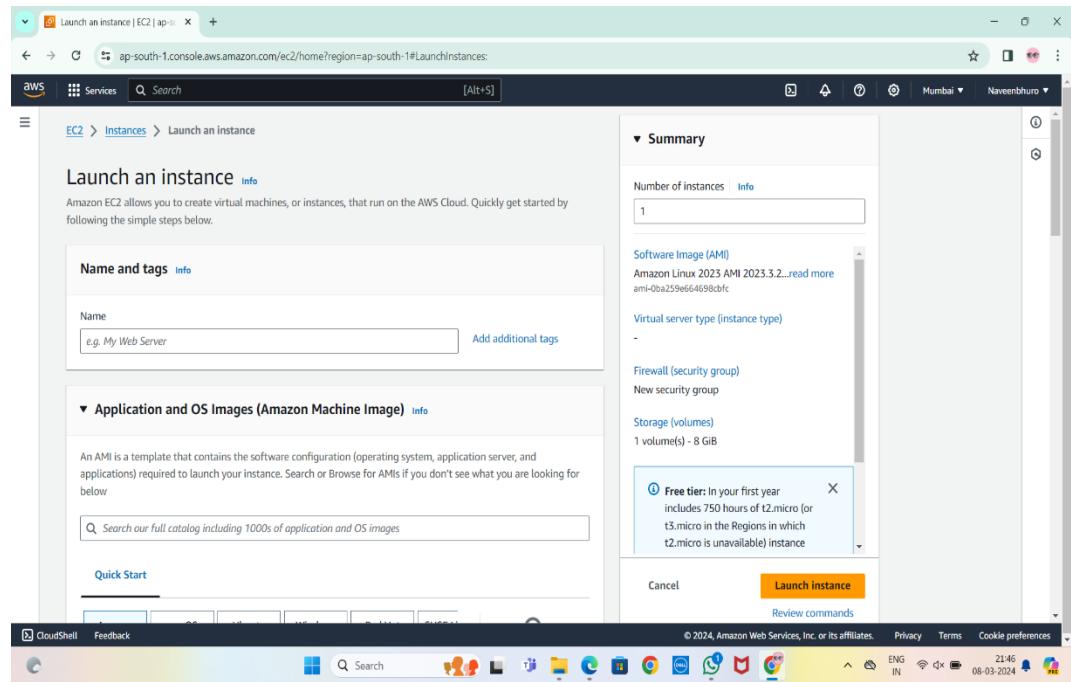
3) Create ebs and attach volume to an instance and unmount the volume and attach to another instance?

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

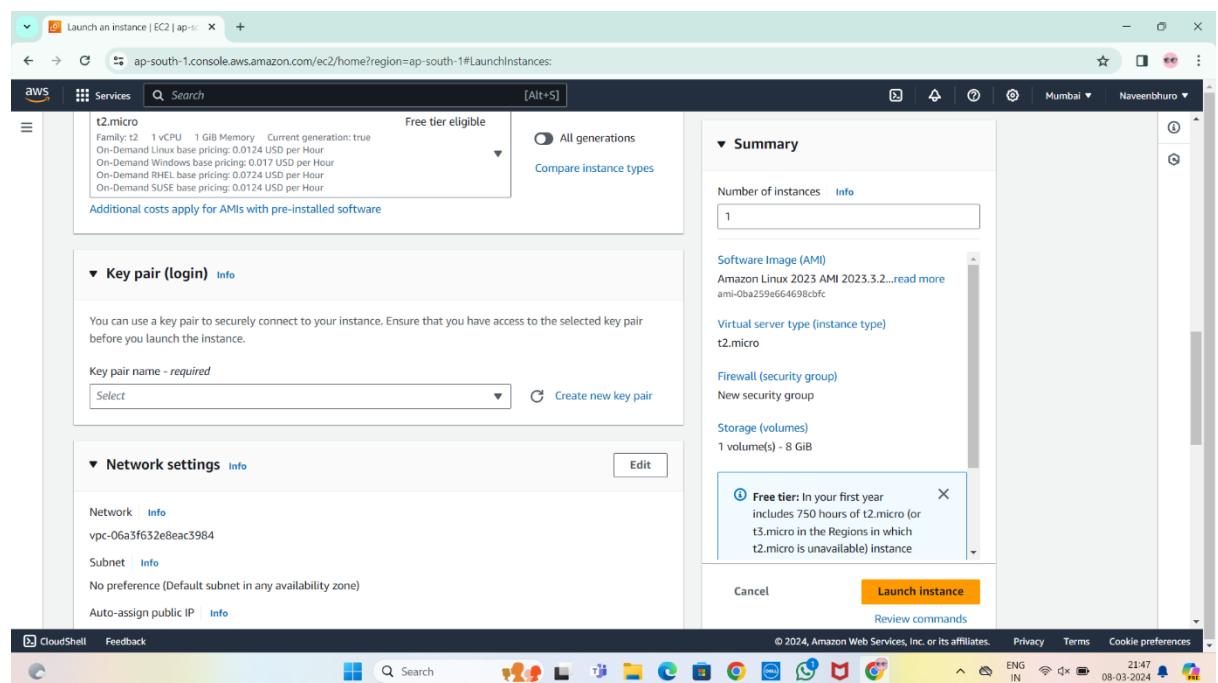


- Now we are in EC2 Dashboard.

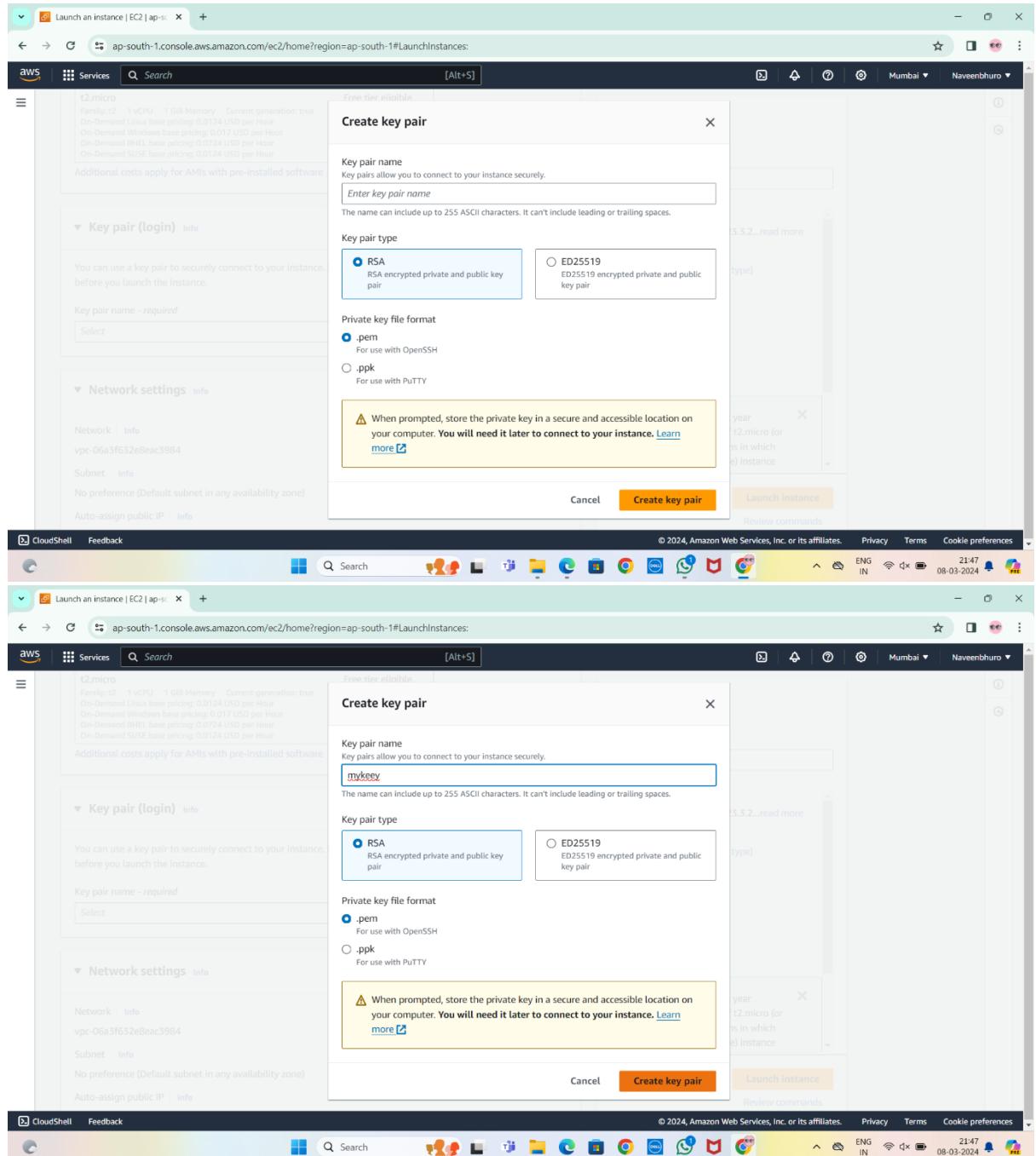
- Click on Instances.
- Now Create One Server in any region .
- Click on Launch Instances.
- Enter Name and select operating system.



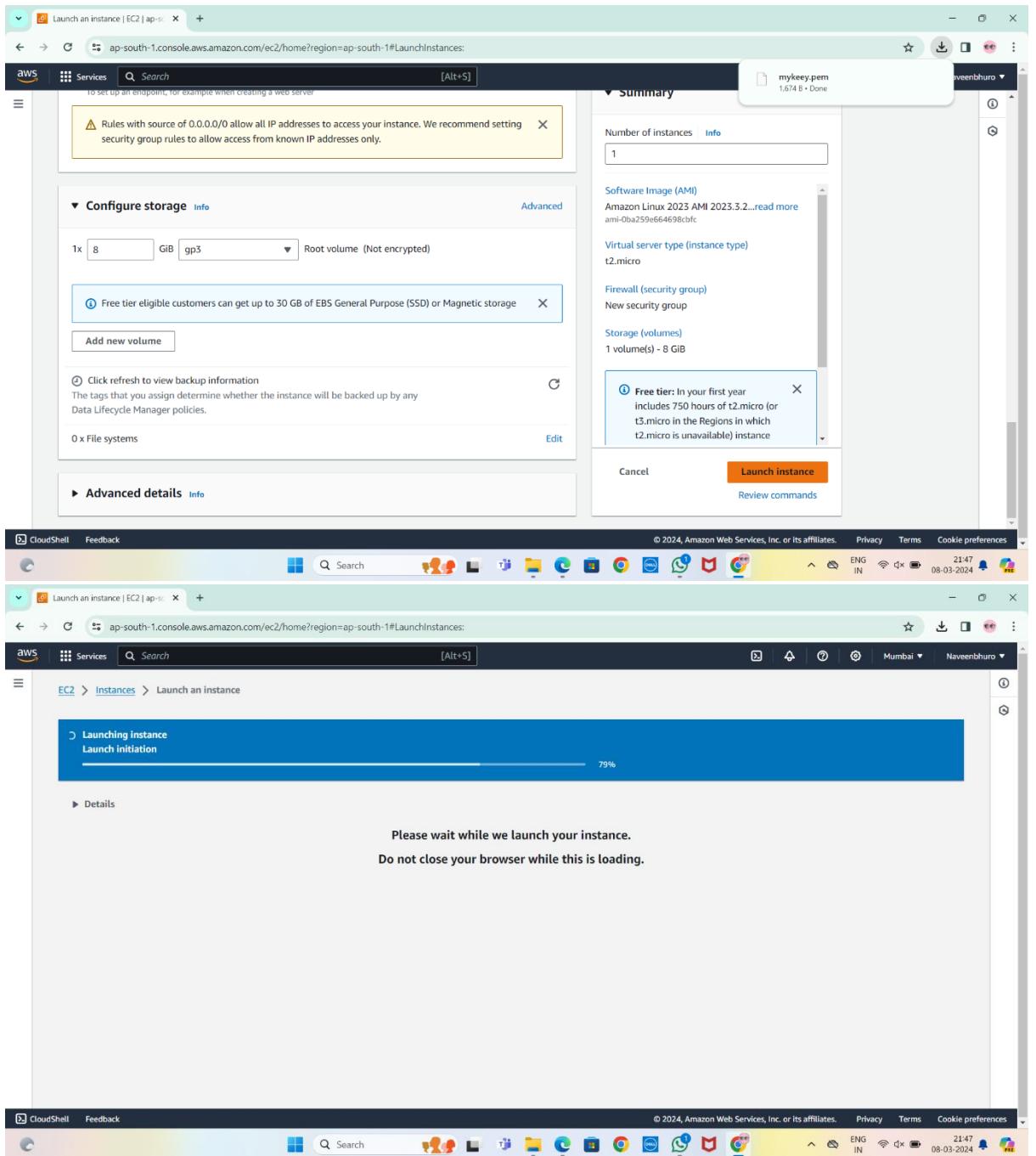
- Now Click a Create new key pair.



➤ 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 | ap-south-1

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#InstanceDetails:instanceId=i-0f425582c00006044

EC2 Instances i-0f425582c00006044

Instance summary for i-0f425582c00006044 (mywebserver1)

Updated less than a minute ago

Instance ID i-0f425582c00006044 (mywebserver1)	Public IPv4 address 43.204.150.110 [open address]	Private IPv4 addresses 172.31.7.201
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-43-204-150-110.ap-south-1.compute.amazonaws.com [open address]
Hostname type IP name: ip-172-31-7-201.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-7-201.ap-south-1.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. [Learn more]
Auto-assigned IP address 43.204.150.110 [Public IP]	VPC ID vpc-06a3f632e8eac3984	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-0fc2b1fffa83b43ca	
IMDSv2 Required		

Details Status and alarms Monitoring Security Networking Storage Tags

CloudShell Feedback

Connect to instance | EC2 | ap-south-1

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#ConnectToInstance:instanceId=i-0f425582c00006044

EC2 Instances i-0f425582c00006044 > Connect to instance

Connect to instance

Connect to your instance i-0f425582c00006044 (mywebserver1) using any of these options

EC2 Instance Connect Session Manager SSH client EC2 serial console

Instance ID
i-0f425582c00006044 (mywebserver1)

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
43.204.150.110

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, ec2-user.

ec2-user

Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

CloudShell Feedback

➤ Now Connected server.

```
[ec2-user@ip-172-31-7-201 ~]$ sudo -i  
[root@ip-172-31-7-201 ~]# df -i  
Filesystem      Inodes  IUsed  IFree  IUse%  Mounted on  
devtmpfs        4.0M    0     4.0M    0% /dev  
tmpfs          475M    0    475M    0% /dev/shm  
tmpfs          190M   2.9M  188M    2% /run  
/dev/xvda1      8.0G  1.6G  6.5G   19% /  
tmpfs          475M    0    475M    0% /tmp  
/dev/xvda128    10M   1.3M   8.7M   13% /boot/efi  
tmpfs          95M    0    95M    0% /run/user/1000
```

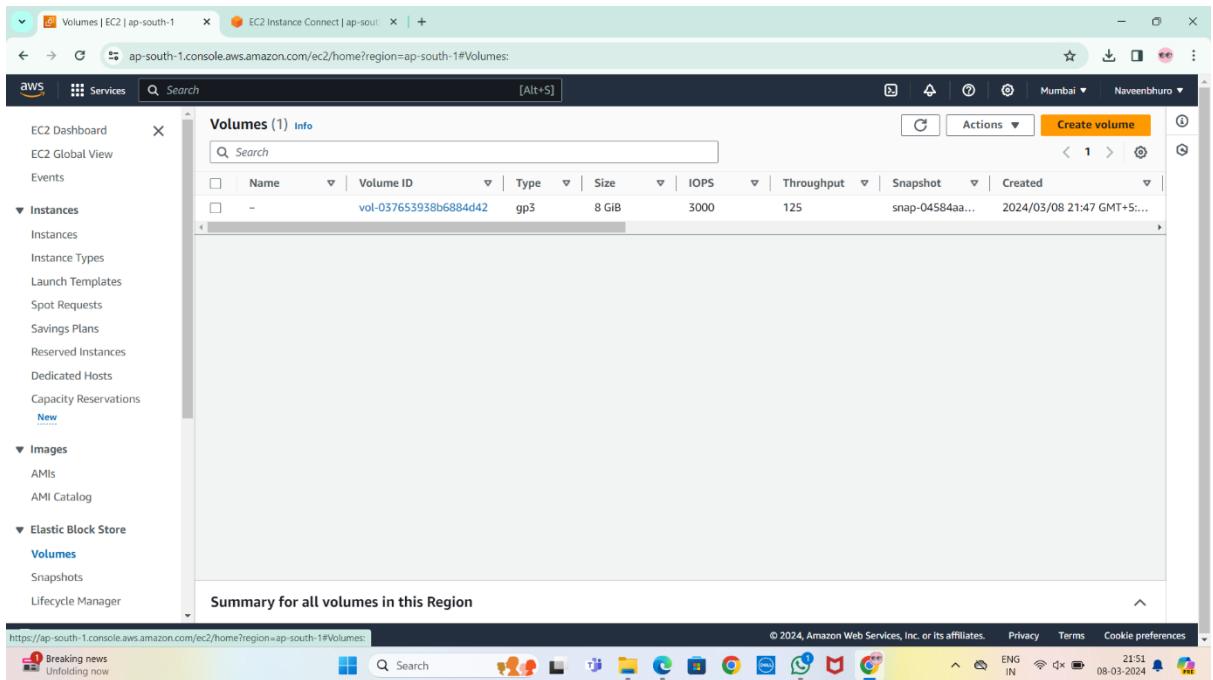
i-0f425582c00006044 (mywebserver1)
PublicIPs: 43.204.150.110 PrivateIPs: 172.31.7.201

➤ **df -h** this command check user size.

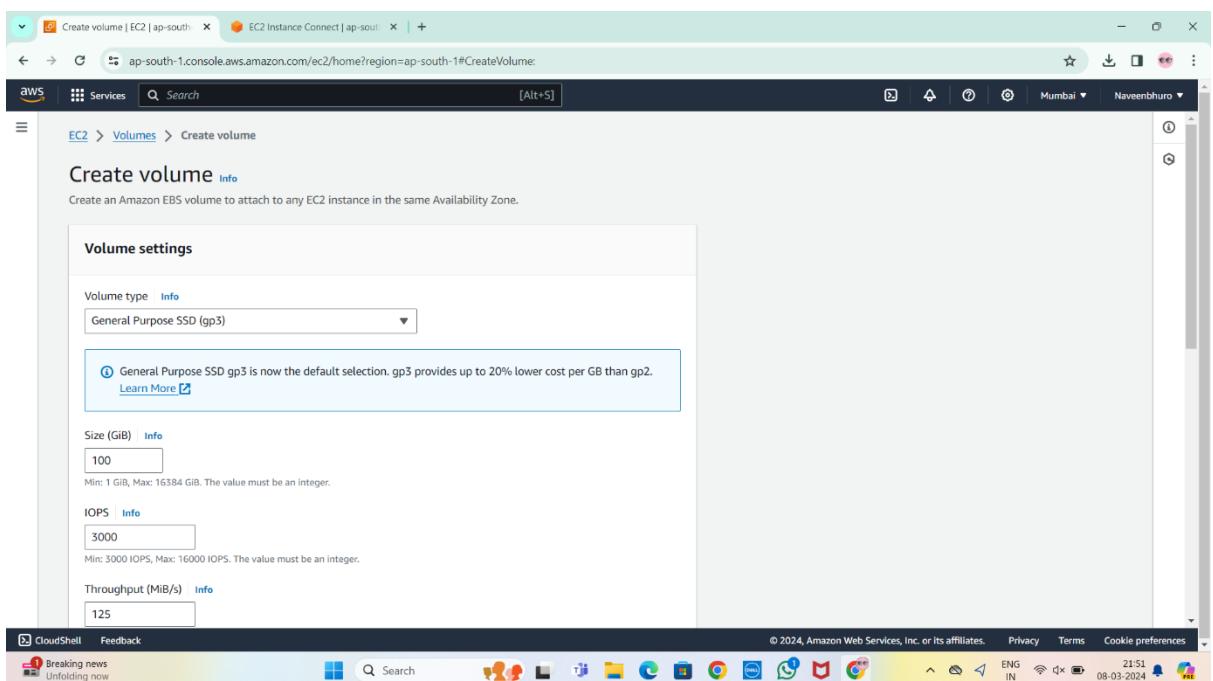
```
[ec2-user@ip-172-31-7-201 ~]$ sudo -i  
[root@ip-172-31-7-201 ~]# df -h  
Filesystem      Size  Used  Avail  Use%  Mounted on  
devtmpfs        4.0M  4.0M  0     100% /dev  
tmpfs          475M  475M  0     100% /dev/shm  
tmpfs          190M  2.9M  188M    2% /run  
/dev/xvda1      8.0G  1.6G  6.5G   19% /  
tmpfs          475M  475M  0     100% /tmp  
/dev/xvda128    10M  1.3M  8.7M   13% /boot/efi  
tmpfs          95M  95M  0     100% /run/user/1000
```

i-0f425582c00006044 (mywebserver1)
PublicIPs: 43.204.150.110 PrivateIPs: 172.31.7.201

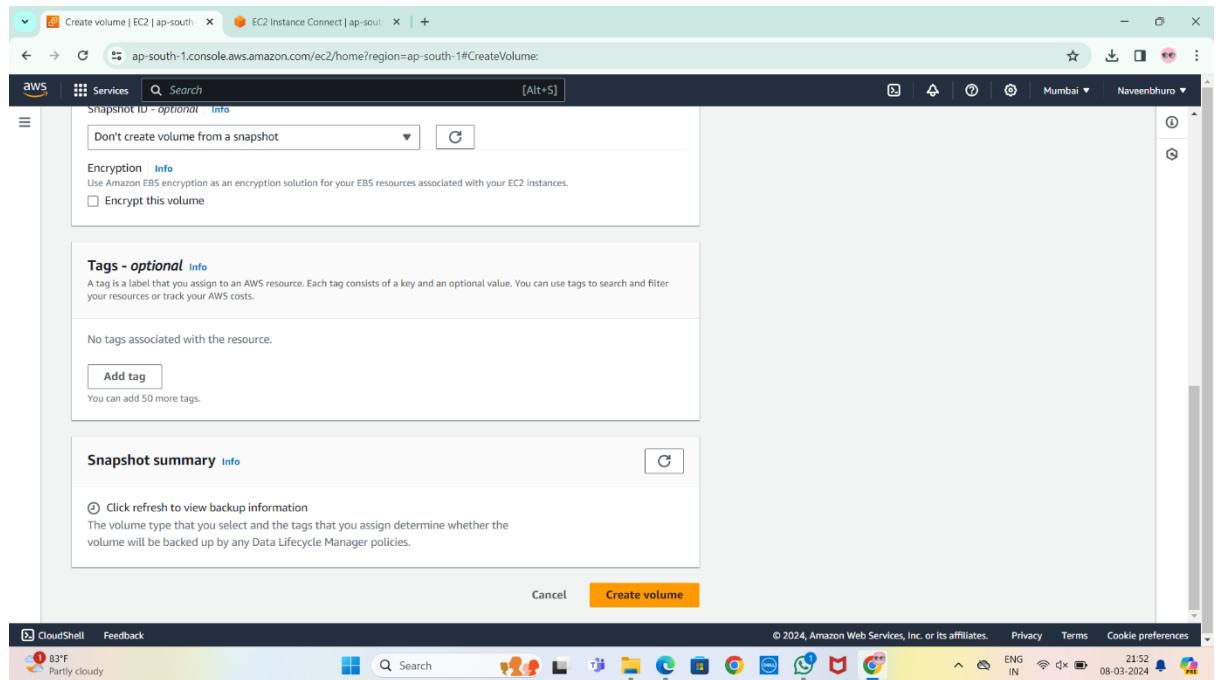
➤ Now go to ebs then volumes.



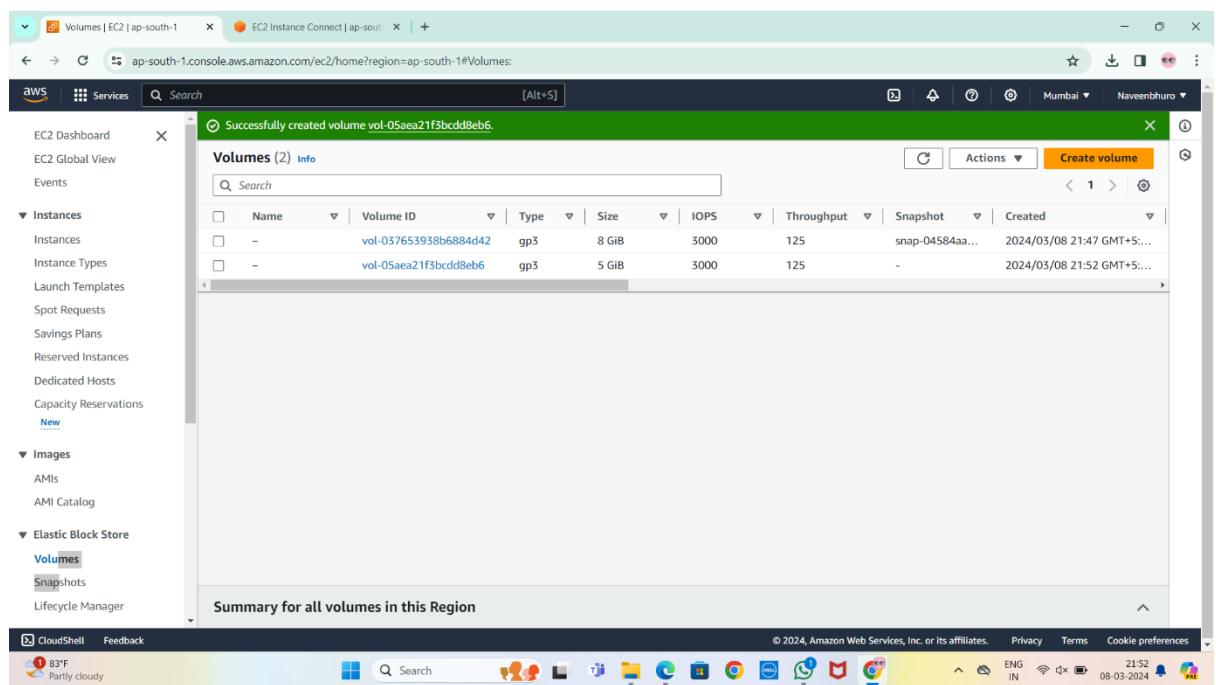
➤ Click on Create Volume.



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



- 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.



Screenshot of the AWS EC2 Volumes console showing the creation of a new volume and its subsequent configuration.

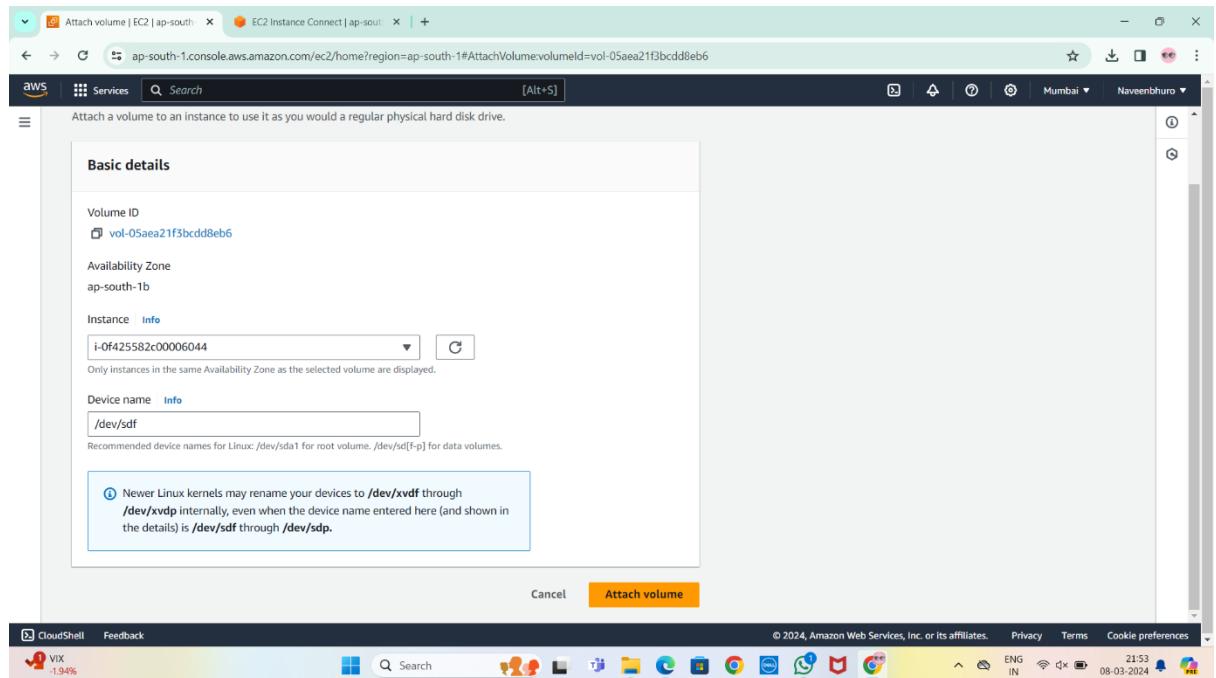
Top Panel: Shows a success message: "Successfully created volume vol-05aea21f3bcd8eb6".

Table View: Displays two volumes. The first volume, "vol-05aea21f3bcd8eb6", was created on 2024/03/08 21:52 GMT+5:30 and is currently "Available". It is attached to an instance "i-0f425582c00006044". The second volume, "snap-04584aa...", was created on 2024/03/08 21:47 GMT+5:30 and is "In-use".

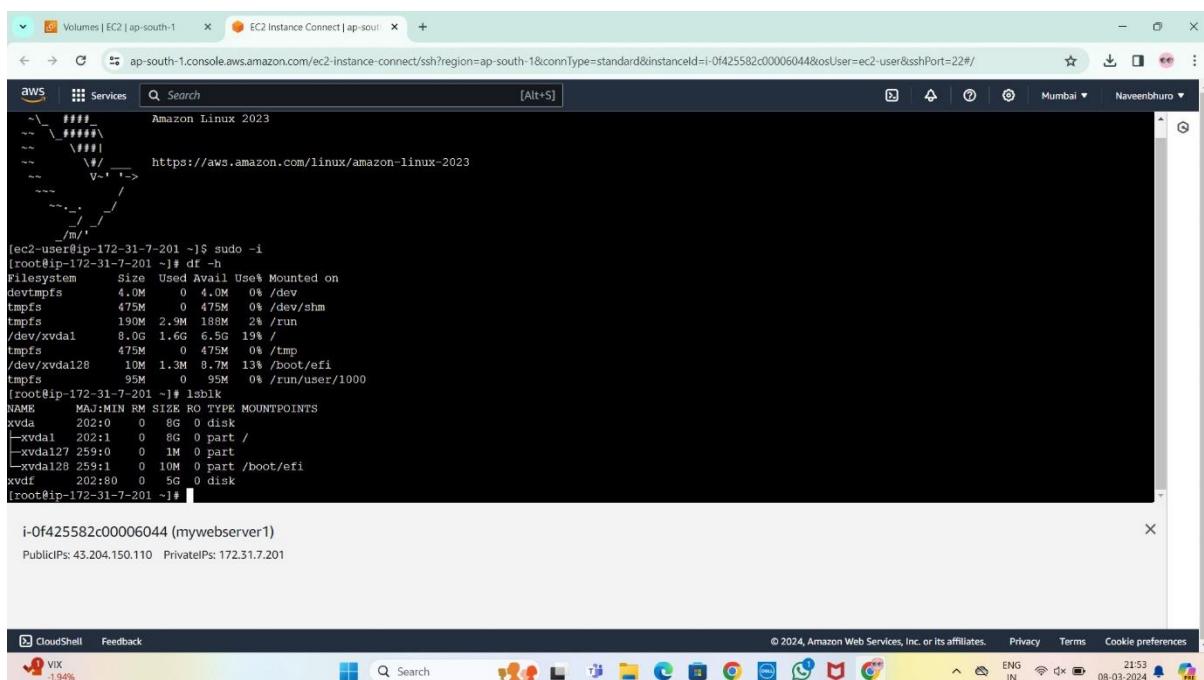
Bottom Panel: Shows the "Volume ID: vol-05aea21f3bcd8eb6" details. Key information includes:

Volume ID	Size	Type	Volume status
vol-05aea21f3bcd8eb6	5 GiB	gp3	Okay
AWS Compute Optimizer finding	Volume state	IOPS	Throughput
Opt-in to AWS Compute Optimizer for recommendations. Learn more	Available	3000	125
Encryption	KMS key ID	KMS key alias	KMS key ARN
Not encrypted	-	-	-
Fast snapshot restored	Snapshot	Availability Zone	Created

Action Menu: A context menu is open for the selected volume, showing options like "Attach volume", "Detach volume", "Force detach volume", "Manage auto-enabled I/O", and "Manage tags".



- Now Go to EC2 Connected server.
 - Enter Command for volume is attached or not.
 - Command is “**lsblk**”



- 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**

The screenshot shows three vertically stacked CloudShell terminal windows. Each window has a title bar with tabs for 'Volumes | EC2 | ap-south-1' and 'EC2 Instance Connect | ap-south-1'. The top window displays a command-line session where the user creates a directory 'vcube/batch1', mounts '/dev/xvdf' to it, and lists files. The middle window shows a command-line session where the user prints 'hi hello', 'welcome to aws', and 'i am VISALVATH NAVEEN', followed by 'i am from balapur hyderabad'. The bottom window shows a command-line session where the user prints 'hi hello', 'welcome to aws', and 'i am VISALVATH NAVEEN', followed by 'i am from balapur hyderabad'. The system tray at the bottom of each window shows the date and time as 08-03-2024 and 21:58, along with other icons.

```
= sunit=0 swidth=0 blks
naming =version 2 bsize=4096 ascii-cl=0, ftype=1
log =internal log bsize=4096 blocks=16384, version=2
      = sectsz=512 sunit=0 blks, lazy-count=1
realtime =none extsz=4096 blocks=0, rtextents=0
[root@ip-172-31-7-201 ~]# file -s /dev/xvdf
/dev/xvdf: SGI XFS filesystem data (blksz 4096, inosz 512, v2 dirs)
[root@ip-172-31-7-201 ~]# mkdir -p vcube/batch1
[root@ip-172-31-7-201 ~]# mount /dev/xvdf vcube/batch1
mount: vcube/batch1: mount point does not exist.
[root@ip-172-31-7-201 ~]# mount /dev/xvdf vcube/batch1
[root@ip-172-31-7-201 ~]# ls
vcube
[root@ip-172-31-7-201 ~]# cd vcube/batch1
[root@ip-172-31-7-201 batch1]# mkdir 143 453
[root@ip-172-31-7-201 batch1]# vi file1
[root@ip-172-31-7-201 batch1]# ls
143 453 file1
[root@ip-172-31-7-201 batch1]# cd ..
[root@ip-172-31-7-201 ~]# lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda    202:0    0   8G  0 disk
└─xvda1  202:1    0   8G  0 part /
└─xvda12 259:0    0   1M  0 part
└─xvda128 259:1   0 10M  0 part /boot/efi
xvdf   202:60   0   9G  0 disk /root/vcube/batch1
[root@ip-172-31-7-201 ~]#
```

i-0f425582c00006044 (mywebserver1)
PublicIPs: 43.204.150.110 PrivateIPs: 172.31.7.201


```
hi hello
welcome to aws
i am VISALVATH NAVEEN
i am from balapur hyderabad
```

i-0f425582c00006044 (mywebserver1)
PublicIPs: 43.204.150.110 PrivateIPs: 172.31.7.201


```
hi hello
welcome to aws
i am VISALVATH NAVEEN
i am from balapur hyderabad
```

The screenshot shows an EC2 Instance Connect session for an instance named 'ap-south-1'. The terminal window displays the following command-line session:

```
[root@ip-172-31-7-201 ~]# ls
vcube
[root@ip-172-31-7-201 ~]# cd vcube/batch1
[root@ip-172-31-7-201 batch1]# mkdir 143 453
[root@ip-172-31-7-201 batch1]# vi file1
[root@ip-172-31-7-201 batch1]# ls
143 453 file1
[root@ip-172-31-7-201 batch1]# cd
[root@ip-172-31-7-201 ~]# lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda   202:0    0  8G  0 disk
└─xvda1  202:1    0  8G  0 part /
└─xvda127 259:0    0  1M  0 part
└─xvda128 259:1    0 10M  0 part /boot/efi
xvdf   202:80   0  5G  0 disk /root/vcube/batch1
[root@ip-172-31-7-201 ~]# umount /dev/xvdf
umount: vcube/batch1: not mounted.
[root@ip-172-31-7-201 ~]# lablk
-lash: lablk: command not found
[root@ip-172-31-7-201 ~]# lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda   202:0    0  8G  0 disk
└─xvda1  202:1    0  8G  0 part /
└─xvda127 259:0    0  1M  0 part
└─xvda128 259:1    0 10M  0 part /boot/efi
xvdf   202:80   0  5G  0 disk
[root@ip-172-31-7-201 ~]#
```

Below the terminal, the instance details are shown:

i-0f425582c00006044 (mywebserver1)
PublicIPs: 43.204.150.110 PrivateIPs: 172.31.7.201

The bottom of the screen shows a Windows taskbar with various icons.

➤ Now go to Volumes and detach the volume to instance.

The screenshot shows the AWS EC2 Volumes page. On the left, the navigation pane includes 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances' (selected), 'Instances Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images' (selected), 'AMIs', 'AMI Catalog', and 'Elastic Block Store' (selected). Under 'Elastic Block Store', 'Volumes' is selected, showing two volumes: 'vol-057653938b6884d42' (8 GiB, gp3) and 'vol-05aea21f3bcd8eb6' (5 GiB, gp3). The second volume is selected. A context menu is open over this volume, with 'Detach volume' highlighted. Other options in the menu include 'Modify volume', 'Create snapshot', 'Create snapshot lifecycle policy', 'Delete volume', 'Attach volume', 'Force detach volume', 'Manage auto-enabled I/O', 'Manage tags', and 'Fault injection'.

The screenshot shows the AWS EC2 Volumes console in the Mumbai region. The left sidebar navigation includes EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, and Elastic Block Store (with Volumes selected). The main content area displays a table of volumes with columns: Name, Volume ID, Type, Size, IOPS, Throughput, Snapshot, and Created. Two volumes are listed: vol-037653938b6884d42 (gp3, 8 GiB, 3000 IOPS, 125 Throughput, snap-04584aa..., 2024/03/08 21:47 GMT+5...) and vol-05aea21f3bcd8eb6 (gp3, 5 GiB, 3000 IOPS, - Throughput, - Snapshot, 2024/03/08 21:52 GMT+5...). A modal dialog titled "Detach vol-05aea21f3bcd8eb6?" is open, asking if the user is sure about detaching the volume. The dialog has "Cancel" and "Detach" buttons. Below the table, there's a summary section for all volumes in the region, showing a snapshot summary with 0 / 1 recently backed up volumes.

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

The screenshot shows the AWS EC2 Instances page with the following details:

- Instances (4) Info** table:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
mywebserver01	i-05cd4cccfb2e6569	Terminated	t2.micro	-	View alarms	ap-south-1b	-
mywebserver02	i-01df75d8eb7001d43	Terminated	t2.micro	-	View alarms	ap-south-1b	-
mywebserver1	i-0f425582c00006044	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1b	ec2-4
mywebserver2	i-05efcad00dca98c22	Running	t2.micro	Initializing	View alarms	ap-south-1b	ec2-4
- Select an instance**: A dropdown menu listing the four instances: mywebserver01, mywebserver02, mywebserver1, and mywebserver2.

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

Volume details | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#VolumeDetails;volumeId=vol-05aea21f3bcd8eb6

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 New Images AMIs AMI Catalog Elastic Block Store Volumes Snapshots Lifecycle Manager CloudShell Feedback

EC2 > Volumes > vol-05aea21f3bcd8eb6

vol-05aea21f3bcd8eb6

Volume ID	Size	Type	Volume status
vol-05aea21f3bcd8eb6	5 GiB	gp3	Okay
AWS Compute Optimizer finding	Volume state	IOPS	Throughput
Opt-in to AWS Compute Optimizer for recommendations. Learn more	In-use	3000	125
Encryption	KMS key ID	KMS key alias	KMS key ARN
Not encrypted	-	-	-
Fast snapshot restored	Snapshot	Availability Zone	Created
No	-	ap-south-1b	Fri Mar 08 2024 21:52:01 GMT+0530 (India Standard Time)
Multi-Attach enabled	Attached resources	Outposts ARN	
No	i-0f42582c00006044 (mywebserver1); /dev/sdf (detaching)	-	

Status checks Monitoring Tags

Volume status Okay Availability Zone ap-south-1b

CloudShell Feedback

Volumes | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | +

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

aws Services Search [Alt+S]

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Volumes (1/3) info

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshots
-	vol-057653938b6884d42	gp3	8 GiB	3000	125	snap-04
<input checked="" type="checkbox"/>	vol-05aea21f3bcd8eb6	gp3	5 GiB	3000	125	-
-	vol-0ed52948d095ca1b0	gp3	8 GiB	3000	125	snap-04

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-05aea21f3bcd8eb6

Details Status checks Monitoring Tags

Volume ID vol-05aea21f3bcd8eb6 Size 5 GiB Type gp3 Volume status Okay

AWS Compute Optimizer finding Volume state Available

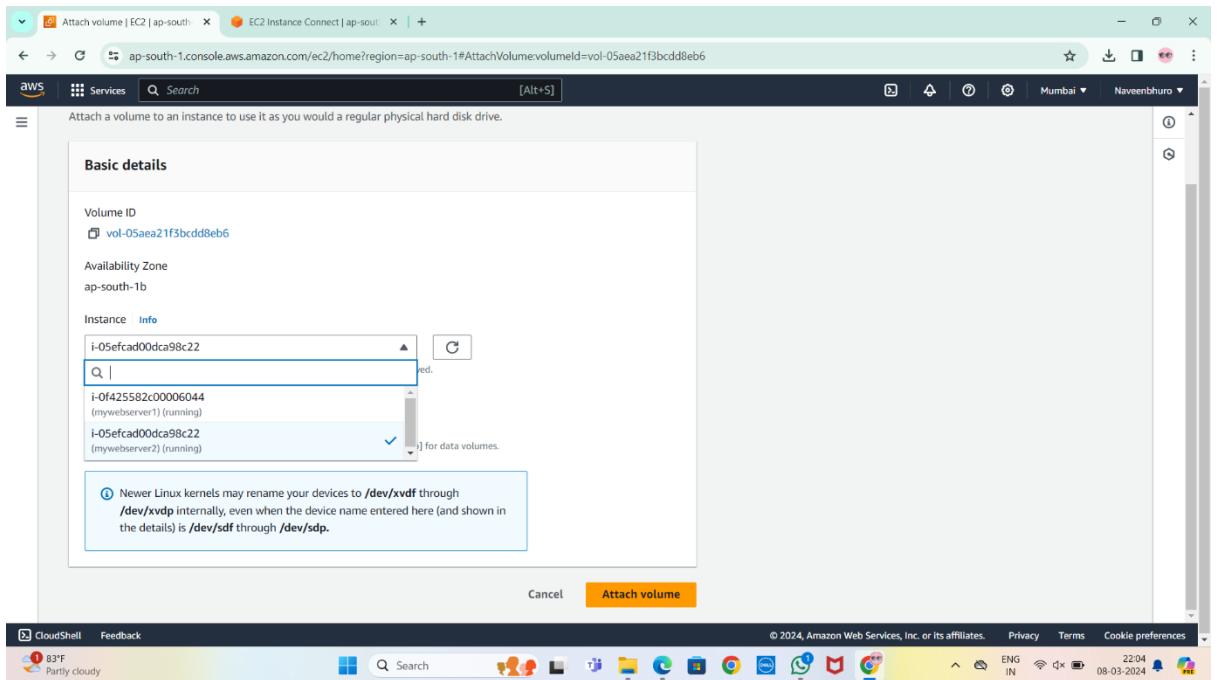
Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Encryption KMS key ID KMS key alias KMS key ARN

Not encrypted

Fast snapshot restored Snapshot Availability Zone Created

CloudShell Feedback



- 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**

i-05efcad00dca98c22 (mywebserver2)
PublicIPs: 43.204.150.171 PrivateIPs: 172.31.13.220

CloudShell Feedback

CloudShell Feedback

CloudShell Feedback

***** END *****