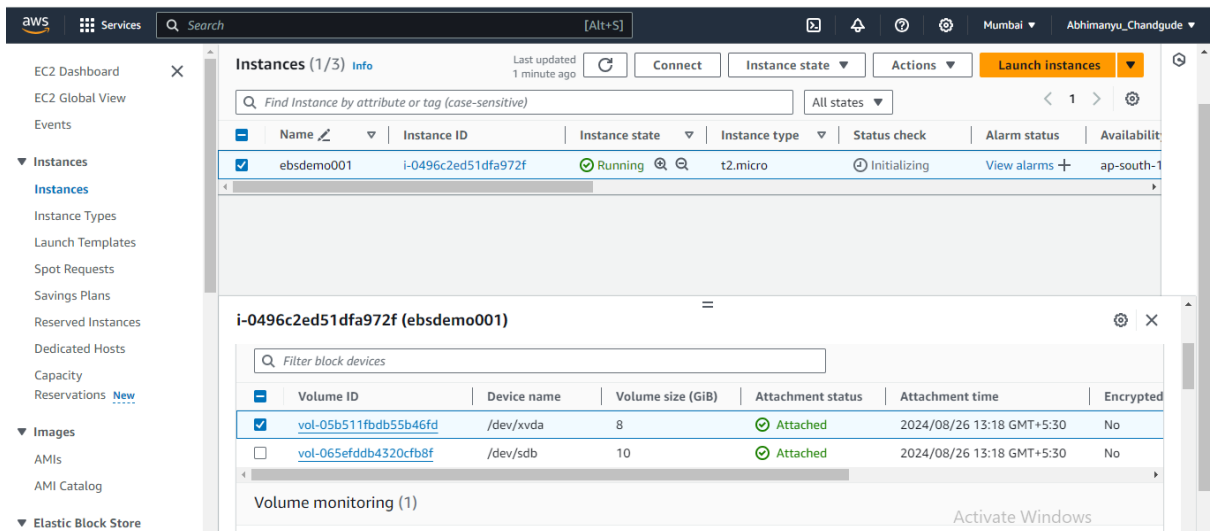
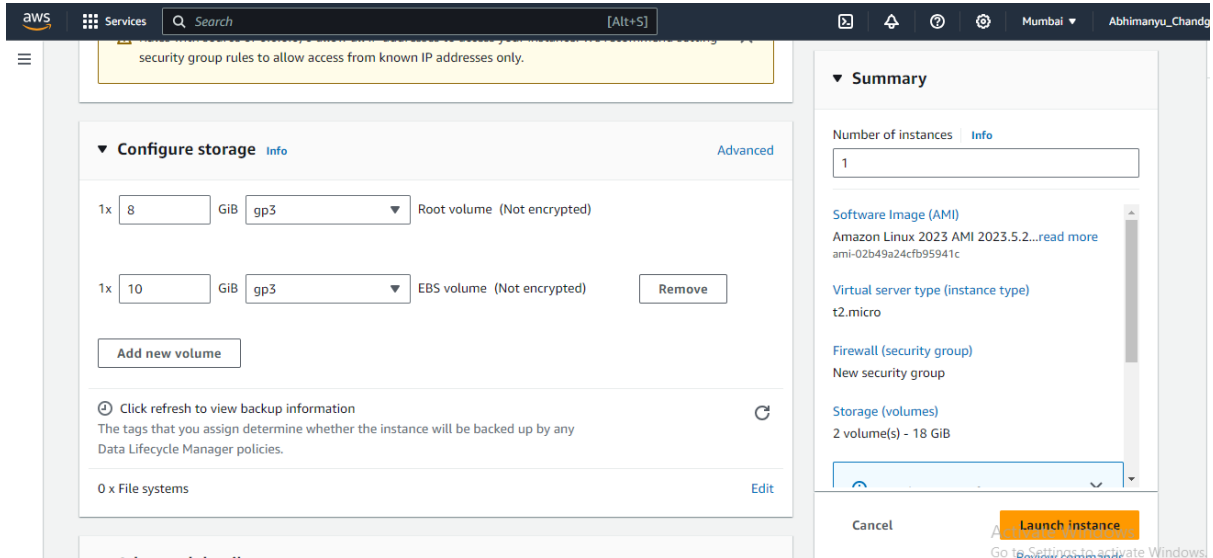


26<sup>th</sup> August 2024

➤ **Increase size of Root EBS Volume from 8GB to 15 GB**

a. Create instance with two volumes



b. Check the condition of Hard-disk

```
root@ip-172-31-37-125:~  
login as: ec2-user  
Authenticating with public key "awsdata1"  
#  
##### Amazon Linux 2  
#####  
##### AL2 End of Life is 2025-06-30.  
#####  
##### A newer version of Amazon Linux is available!  
#####  
##### Amazon Linux 2023, GA and supported until 2028-03-15.  
#####  
##### https://aws.amazon.com/linux/amazon-linux-2023/  
#####  
[ec2-user@ip-172-31-37-125 ~]$ sudo su -  
-bash: sudo: command not found  
[ec2-user@ip-172-31-37-125 ~]$ sudo su -  
[root@ip-172-31-37-125 ~]# df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        467M   0  467M   0% /dev  
tmpfs           477M   0  477M   0% /dev/shm  
tmpfs           477M 408K  476M   1% /run  
tmpfs           477M   0  477M   0% /sys/fs/cgroup  
/dev/xvda1      8.0G  1.8G  6.3G  23% /  
tmpfs           96M   0   96M   0% /run/user/1000  
[root@ip-172-31-37-125 ~]#
```

c. Create and mount the directory

```
Allocating group tables: done  
Writing inode tables: done  
Creating journal (32768 blocks): done  
Writing superblocks and filesystem accounting information: done  
  
[root@ip-172-31-37-125 ~]# mkdir /home/abhimanyu  
[root@ip-172-31-37-125 ~]#  
[root@ip-172-31-37-125 ~]# mount /dev/xvdb /home/abhimanyu  
[root@ip-172-31-37-125 ~]# df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        467M   0  467M   0% /dev  
tmpfs           477M   0  477M   0% /dev/shm  
tmpfs           477M 496K  476M   1% /run  
tmpfs           477M   0  477M   0% /sys/fs/cgroup  
/dev/xvda1      8.0G  1.8G  6.3G  23% /  
tmpfs           96M   0   96M   0% /run/user/1000  
tmpfs           96M   0   96M   0% /run/user/0  
/dev/xvdb       9.7G  24K  9.2G   1% /home/abhimanyu  
[root@ip-172-31-37-125 ~]#
```

d. Take snapshot of Root EBS Volume

**Snapshots (1/1) Info**

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status
-	snap-0c77c190c4f5434a0	8 GiB	-	Standard	Pending

**Snapshot ID: snap-0c77c190c4f5434a0**

**Details**

Snapshot ID: snap-0c77c190c4f5434a0

Progress: Unavailable (0%)

Snapshot status: Pending

Owner: 528757786221

Started: Mon Aug 26 2024 14:17:51 GMT+0530 (India Standard Time)

Product codes: -

Fast snapshot restore: -

Description: -

Source volume: -

## e. Create Volume from Snapshot

**Volumes (3) Info**

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-05b511fbd55b46fd	gp2	8 GiB	100	-	snap-0b5f827...	2024/08/26 13
-	vol-065efddb4320cfb8f	gp3	10 GiB	3000	125	-	2024/08/26 13
-	vol-0530e9a3f1bf75a73	gp3	15 GiB	3000	125	snap-0c77c19...	2024/08/26 14

**Fault tolerance for all volumes in this Region**

**Snapshot summary**

Recently backed up volumes / Total # volumes: 1 / 5

Data Lifecycle Manager default policy for EBS Snapshots status: No default policy set up | [Create policy](#)

## f. Detach previous Root EBS Volume (8 GB)

1. Stop the Root EBS Volume instance (8 GB)

Successfully initiated stopping of i-0496c2ed51dfa972f

**Instances (1/3)** Info Last updated less than a minute ago Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive) All states

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input type="checkbox"/>	ebsdemo01	i-050e5229c7333c109	Terminated	t2.micro	-	<a href="#">View alarms +</a>	ap-south-1
<input type="checkbox"/>	ebsdemo	i-0ba7e638495937a49	Terminated	t2.micro	-	<a href="#">View alarms +</a>	ap-south-1
<input checked="" type="checkbox"/>	ebsdemo001	i-0496c2ed51dfa972f	Stopping	t2.micro	Initializing	<a href="#">View alarms +</a>	ap-south-1

**i-0496c2ed51dfa972f (ebsdemo001)**

Filter block devices

	Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted
<input checked="" type="checkbox"/>	vol-05b511fbd55b46fd	/dev/xvda	8	Attached	2024/08/26 13:18 GMT+5:30	No
<input type="checkbox"/>	vol-065efddb4320cfb8f	/dev/sdb	10	Attached	2024/08/26 13:18 GMT+5:30	No

Volume monitoring (1) Activate Windows

## 2. Detach the Root EBS Instance

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

Successfully detached volume.

**Volumes (3)** Info Actions Create volume

Search

	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state
	8 GiB	100	-	snap-0b5f827...	2024/08/26 13:18 GMT+5:30	ap-south-1a	Available
	10 GiB	3000	125	-	2024/08/26 13:18 GMT+5:30	ap-south-1a	In-use
	15 GiB	3000	125	snap-0c77c19...	2024/08/26 14:21 GMT+5:30	ap-south-1a	Available

**Fault tolerance for all volumes in this Region**

**Snapshot summary** Last updated on Mon, Aug 26, 2024, 02:21:55 PM (GMT+05:30)

Recently backed up volumes / Total # volumes

1 / 5

Data Lifecycle Manager default policy for EBS Snapshots status

No default policy set up | [Create policy](#)

Activate Windows  
Go to Settings to activate Windows.

### g. Attach new Root EBS Volume (15 GB)

Successfully initiated starting of i-0496c2ed51dfa972f

Notifications 0 2 0 0 0

Instances (1/1) Info

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
ebsdemo001	i-0496c2ed51dfa972f	Running	t2.micro	Initializing	View alarms	ap-south-1

i-0496c2ed51dfa972f (ebsdemo001)

Filter block devices

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted
vol-0530e9a3f1bf75a73	/dev/xvda	15	Attaching	2024/08/26 14:29 GMT+5:30	No
vol-065efddb4320cfb8f	/dev/sdb	10	Attaching	2024/08/26 13:18 GMT+5:30	No

Volume monitoring (1)

Activate Windows

Go to Settings to activate Windows.

h. Check new Root EBS Volume and check the file

```

aws
Services
Search [Alt+S]

~\  ##### Amazon Linux 2
~\  #####\
~\  \###| AL2 End of Life is 2025-06-30.
~\  \#/
~\  V~' '->
~\  /
~\  /
~\  /
~\  /m/'

A newer version of Amazon Linux is available!

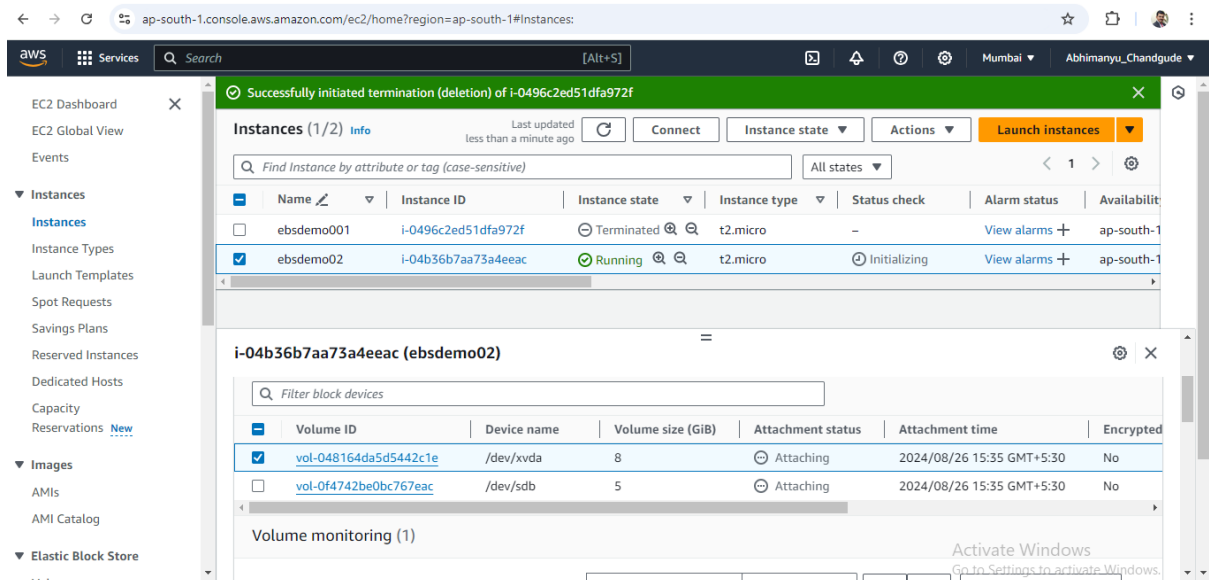
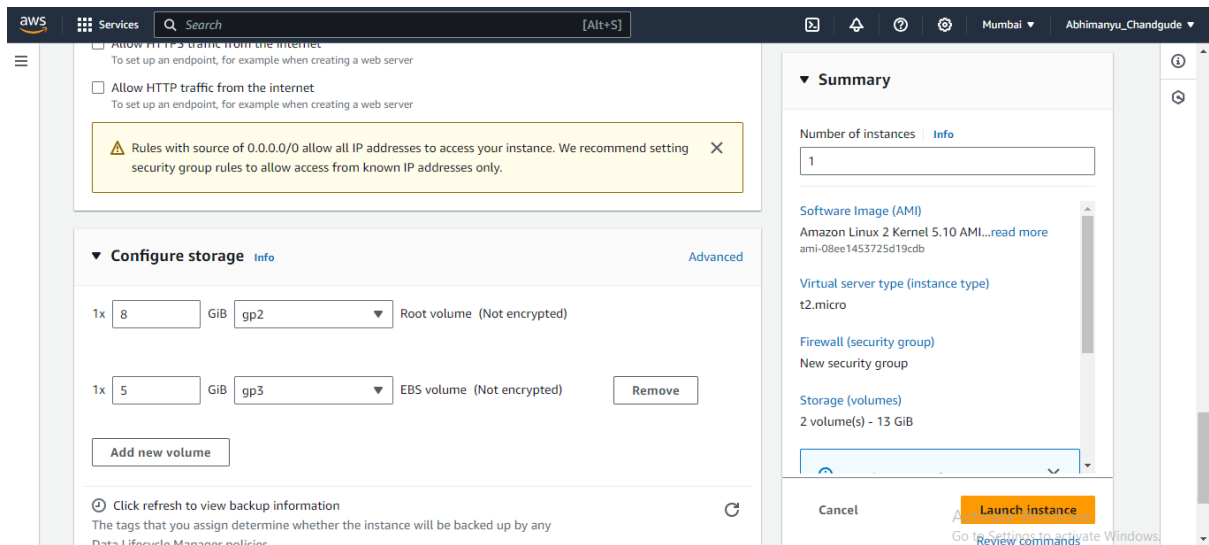
Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-172-31-37-125 ~]$ sudo su -
Last login: Mon Aug 26 08:23:12 UTC 2024 on pts/1
[root@ip-172-31-37-125 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M   0  467M   0% /dev
tmpfs           477M   0  477M   0% /dev/shm
tmpfs           477M 404K  476M   1% /run
tmpfs           477M   0  477M   0% /sys/fs/cgroup
/dev/xvda1      15G  1.8G   14G  12% /
tmpfs           96M   0   96M   0% /run/user/1000
[root@ip-172-31-37-125 ~]# cd /
[root@ip-172-31-37-125 /]# cat devops.txt
hello
[root@ip-172-31-37-125 /]#

```

### ➤ Increase size of EBS Volume from 8GB to 15 GB

a. Create instance with two volumes



b. Create and mount the directory

```
[root@ip-172-31-47-48 ~]# mkdir /home/abhimanyu
[root@ip-172-31-47-48 ~]# mount /dev/xvdb /home/abhimanyu
[root@ip-172-31-47-48 ~]#
[root@ip-172-31-47-48 ~]#
[root@ip-172-31-47-48 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M   0  467M   0% /dev
tmpfs           477M   0  477M   0% /dev/shm
tmpfs           477M 408K  476M   1% /run
tmpfs           477M   0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  23% /
tmpfs           96M   0   96M   0% /run/user/1000
/dev/xvdb       4.8G  24K  4.6G   1% /home/abhimanyu
[root@ip-172-31-47-48 ~]#
```

c. Check the EBS Volume with instance ID

The screenshot shows the AWS Management Console interface for the 'Volumes' section. The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Instances, Images, and Elastic Block Store. The main content area displays a list of volumes for the selected instance. The volume 'vol-0f4742be0bc767eac' is selected, and its details are shown below the list.

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Create
-	vol-048164da5d5442c1e	gp2	8 GiB	100	-	snap-0b5f827...	2024/
<input checked="" type="checkbox"/>	vol-0f4742be0bc767eac	gp3	5 GiB	3000	125	-	2024/

**Volume ID: vol-0f4742be0bc767eac**

Details	Status checks	Monitoring	Tags
Volume ID vol-0f4742be0bc767eac AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.   Learn more	Size 5 GiB Volume state In-use	Type gp3 IOPS 3000	Volume status Okay Throughput 125

d. Modify EBC Volume from 5 GB to 15 GB with the action of Modify Volume

The screenshot shows the AWS Management Console interface for the 'Volumes' section. The volume 'vol-0f4742be0bc767eac' is selected, and the 'Modify Volume' action is being performed. The volume size is being changed from 5 GiB to 15 GiB. The console also displays a 'Fault tolerance for all volumes in this Region' section with a 'Snapshot summary' showing 0/2 volumes backed up.

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Create
-	vol-048164da5d5442c1e	gp2	8 GiB	100	-	snap-0b5f827...	2024/
<input checked="" type="checkbox"/>	vol-0f4742be0bc767eac	gp3	15 GiB	3000	125	-	2024/

**Fault tolerance for all volumes in this Region**

**Snapshot summary** Last updated on Mon, Aug 26, 2024, 03:43:56 PM (GMT+05:30)

Recently backed up volumes / Total # volumes  
0 / 2

Data Lifecycle Manager default policy for EBS Snapshots status  
No default policy set up | Create policy

e. Extend the file system after resizing an EBS Volume

```
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instanceId=i-04b36b7aa73a4eeac&osUser=ec2-user&ssh...

aws Services Search [Alt+S] Mumbai Abhimanyu_Chandgude

tmpfs      477M    0  477M    0% /dev/shm
tmpfs      477M 408K  476M    1% /run
tmpfs      477M    0  477M    0% /sys/fs/cgroup
/dev/xvda1  8.0G  1.8G  6.3G   23% /
tmpfs      96M    0   96M    0% /run/user/1000
/dev/xvdb   4.8G  24K  4.6G    1% /home/abhimanyu
[root@ip-172-31-47-48 ~]#
[root@ip-172-31-47-48 ~]#
[root@ip-172-31-47-48 ~]# resize2fs /dev/xvdb
resize2fs 1.42.9 (28-Dec-2013)
Filesystem at /dev/xvdb is mounted on /home/abhimanyu; on-line resizing required
old desc blocks = 1, new desc blocks = 2
The filesystem on /dev/xvdb is now 3932160 blocks long.

[root@ip-172-31-47-48 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M    0  467M    0% /dev
tmpfs           477M    0  477M    0% /dev/shm
tmpfs           477M 408K  476M    1% /run
tmpfs           477M    0  477M    0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G   23% /
tmpfs           96M    0   96M    0% /run/user/1000
/dev/xvdb       15G  24K   14G    1% /home/abhimanyu
[root@ip-172-31-47-48 ~]#
```