

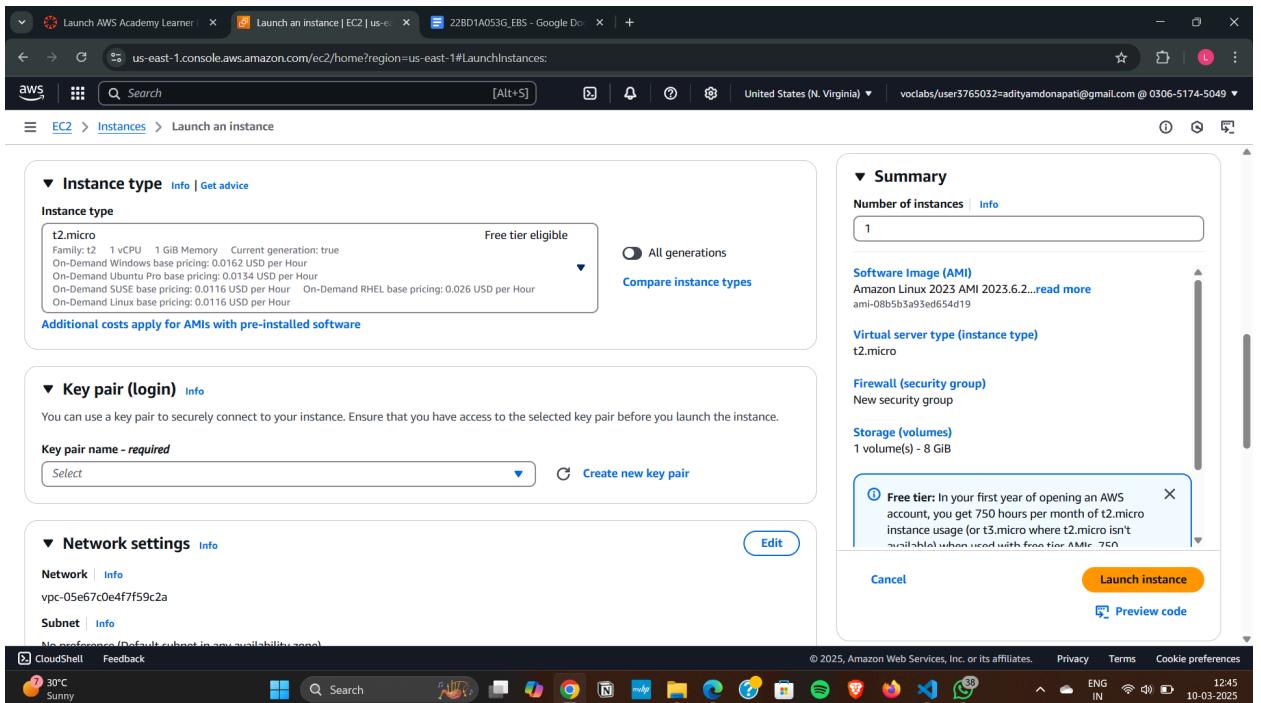
EBS

EBS provides persistent block storage volumes that can be attached to EC2 instances. It's used for storing data that requires long-term persistence, such as operating systems, applications, databases, and other data storage needs. You can attach multiple EBS volumes to an EC2 instance, and each volume can be formatted with a filesystem or used as raw storage for databases.

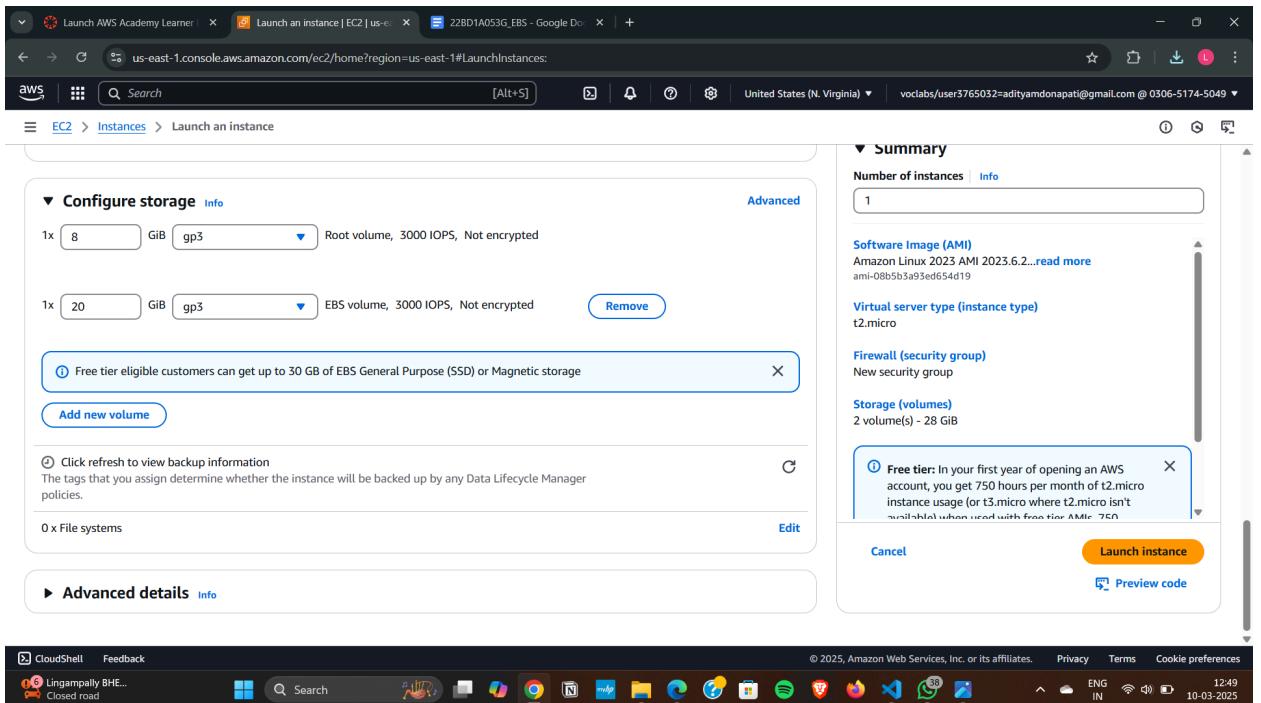
1. Create an EC2 instance as usual

The screenshot shows the AWS Cloud Console interface for launching a new EC2 instance. The top navigation bar includes tabs for 'Launch AWS Academy Learner', 'Launch an instance | EC2 | us-east-1', and 'Untitled document - Google Doc'. The main page title is 'us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances'. The breadcrumb navigation shows 'EC2 > Instances > Launch an instance'. The main content area is titled 'Launch an instance' with a 'Info' link. It starts with a 'Name and tags' section where the name '22BD1A053G_EBS' is entered. Below it is a 'Software Image (AMI)' section showing 'Amazon Linux 2023 AMI 2023.6.2...' with a 'read more' link and the ID 'ami-08b5b3a95ed654d19'. The 'Virtual server type (instance type)' is set to 't2.micro'. Under 'Firewall (security group)', it says 'New security group'. In the 'Storage (volumes)' section, there is 1 volume(s) - 8 GiB. A callout box highlights the 'Free tier: In your first year of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where t2.micro isn't available) when used with free tier AMIs. 750'. At the bottom right are 'Cancel', 'Launch instance', and 'Preview code' buttons. The bottom of the screen shows the AWS navigation bar with 'CloudShell', 'Feedback', and various icons for search, file management, and communication. The footer includes copyright information for 2025, privacy terms, cookie preferences, and system status like 'ENG IN' and the date '10-03-2025'.

2. Select instance type as t2 micro



3. Configure storage by adding new volume as shown below



4. Select the instance, and then open the storage tab to see the configurations.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
<input checked="" type="checkbox"/> 22BD1A053G_...	i-06838c0acf03756d0	Running	t2.micro	Initializing	View alarms +	us-east-1d	ec2-44-206-
<input type="checkbox"/> 052f-attachm...	i-0b3d5100ba78bd448	Stopped	t2.micro	2/2 checks passed	View alarms +	us-east-1d	-

Volume ID	Device name	Volume size (GiB)	Volume State	Attachment status	Attachment time
<input checked="" type="checkbox"/> vol-0fb3d96fc6f092f13	/dev/xvda	8	In-use	Attached	2025/03/10 12:50 GMT+5:30

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
<input checked="" type="checkbox"/> 22BD1A053G_...	i-06838c0acf03756d0	Running	t2.micro	Initializing	View alarms +	us-east-1d	ec2-44-206-
<input type="checkbox"/> 052f-attachm...	i-0b3d5100ba78bd448	Stopped	t2.micro	2/2 checks passed	View alarms +	us-east-1d	-

Volume ID	Device name	Volume size (GiB)	Volume State	Attachment status	Attachment time
<input checked="" type="checkbox"/> vol-0fb3d96fc6f092f13	/dev/xvda	8	In-use	Attached	2025/03/10 12:50 GMT+5:30
<input type="checkbox"/> vol-01c000ae0e1a191a1	/dev/sdb	20	In-use	Attached	2025/03/10 12:50 GMT+5:30

5. Stop instance. Now, go to actions-> instance settings-> change instance type

The screenshot shows the AWS EC2 Instances page. A context menu is open over an instance named 'i-06838c0acf03756d0'. The 'Actions' option is selected in the menu. Within the 'Actions' dropdown, 'Change instance type' is highlighted. The main pane shows the instance details: Name: i-06838c0acf03756d0, Instance ID: i-06838c0acf03756d0, Instance state: Stopped, Instance type: t2.micro, Status check: Pending, and Alarm status: Not configured. Below the instance list, there's a 'Block devices' section showing two volumes: 'vol-0fb3d96fc6f092f13' (/dev/xvda, 8 GiB) and 'vol-01c00aaede1a191a1' (/dev/sdb, 20 GiB). The bottom of the screen shows the Windows taskbar with various pinned icons.

6. Select new instance type as t2.medium and change.

The screenshot shows the 'Change instance type' configuration page. The 'New instance type' dropdown is set to 't2.medium'. Below it, a note states: 'EBS-optimized EBS-optimized is not supported for this instance type'. The 'Instance type comparison' table compares 't2.micro' and 't2.medium' across several attributes:

Attribute	t2.micro	t2.medium
On-Demand Linux pricing	0.0116 USD per Hour	0.0464 USD per Hour
On-Demand Windows pricing	0.0162 USD per Hour	0.0644 USD per Hour
vCPUs	1 (1 core)	2 (2 core)
Memory (MiB)	1024	4096

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

7. The instance type will be shown as t2.medium. Then change it back to t2.micro.

Instances (1/2) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
22BD1A053G_...	i-06838c0acf03756d0	Stopped	t2.medium	-	View alarms +	us-east-1d	-
052f-attachm...	i-0b3d5100ba78bd448	Stopped	t2.micro	-	View alarms +	us-east-1d	-

i-06838c0acf03756d0 (22BD1A053G_EBS)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance summary

Instance ID i-06838c0acf03756d0	Public IPv4 address -	Private IPv4 addresses 172.31.94.8
IPv6 address -	Instance state Stopped	Public IPv4 DNS -
Hostname type IP name: ip-172-31-94-8.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-94-8.ec2.internal	

Instances (1/2) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
22BD1A053G_...	i-06838c0acf03756d0	Stopped	t2.micro	-	View alarms +	us-east-1d	-
052f-attachm...	i-0b3d5100ba78bd448	Stopped	t2.micro	-	View alarms +	us-east-1d	-

i-06838c0acf03756d0 (22BD1A053G_EBS)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance summary

Instance ID i-06838c0acf03756d0	Public IPv4 address -	Private IPv4 addresses 172.31.94.8
IPv6 address -	Instance state Stopped	Public IPv4 DNS -
Hostname type IP name: ip-172-31-94-8.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-94-8.ec2.internal	

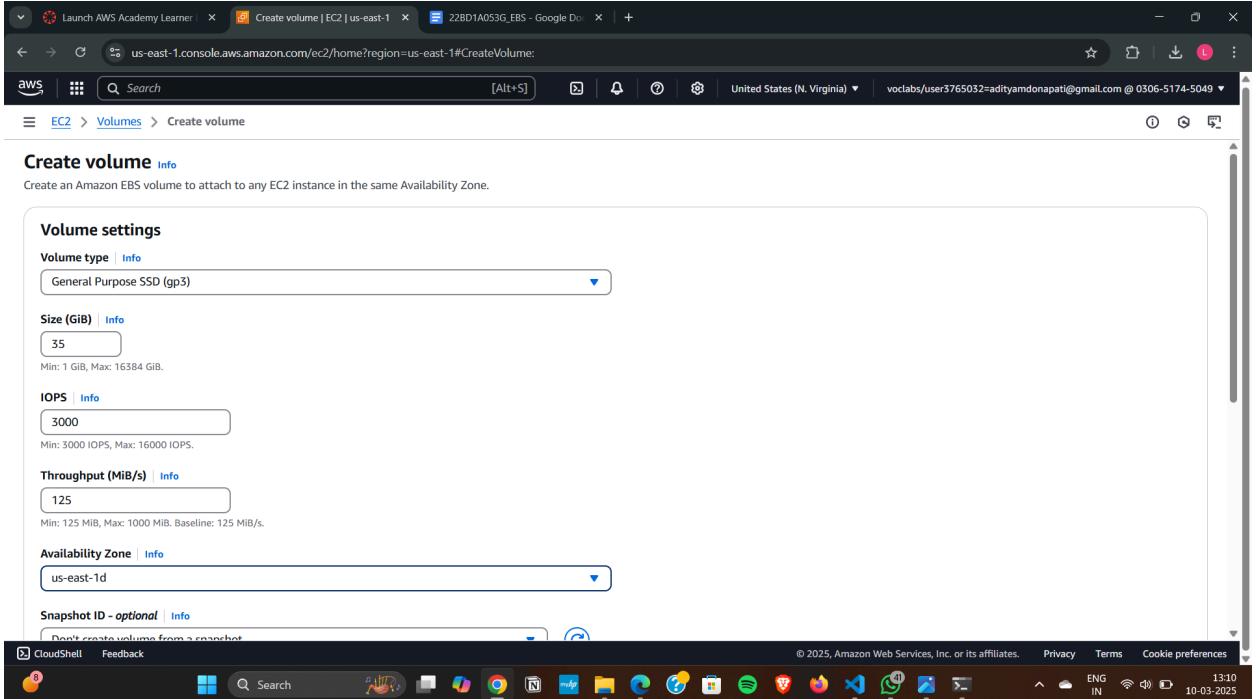
- Start the instance and Connect to the Instance, this will open a terminal. Now, enter “lsblk” to see this:

```
[ec2-user@ip-172-31-94-8 ~]$ cd downloads
PS C:\Users\nsailesh\Downloads> ssh -i "JoJoPaapa.pem" ec2-user@ec2-54-152-110-208.compute-1.amazonaws.com
The authenticity of host 'ec2-54-152-110-208.compute-1.amazonaws.com (54.152.110.208)' can't be established.
ED25519 key fingerprint is SHA256:OfF2jxr1I0v94kU+awL96pfYzTXLz3OIwlKmlaHQQ.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-152-110-208.compute-1.amazonaws.com' (ED25519) to the list of known hosts.

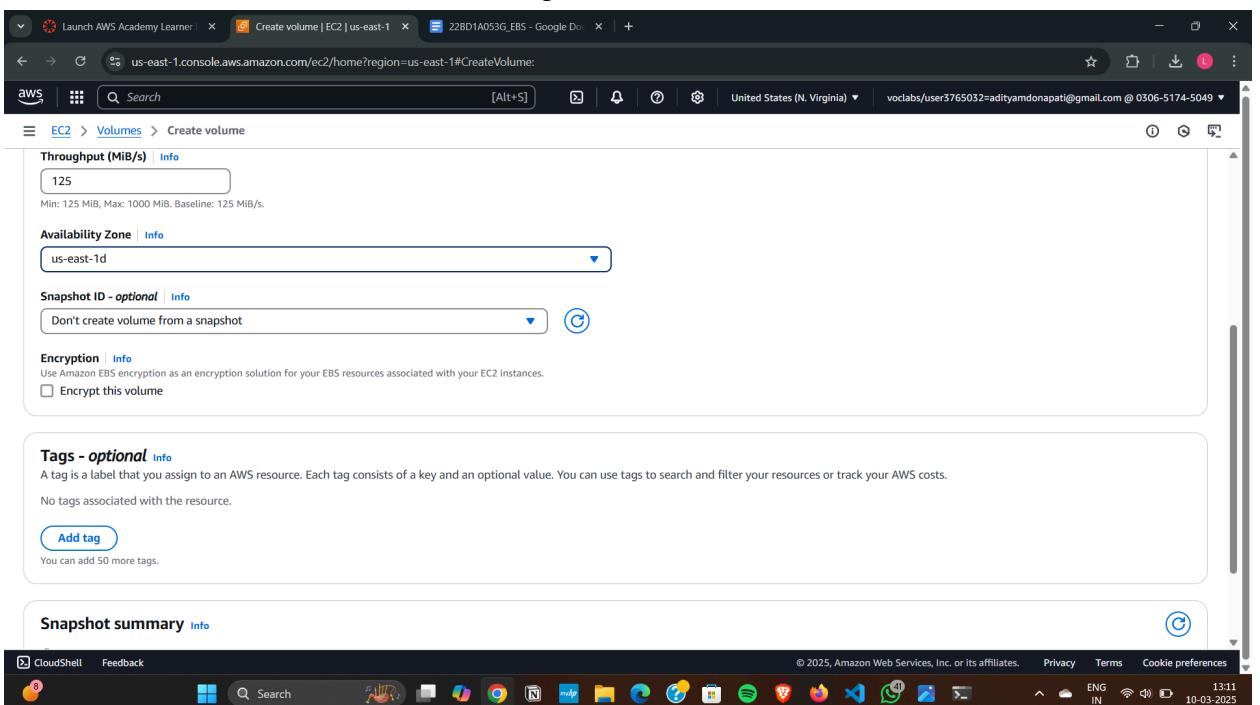
          _#_
         /###\
        /####\
       /###| \
      /#/  --> https://aws.amazon.com/linux/amazon-linux-2023
     /~`-->
    /~~`/
   /~~`-`/
  /~~`/_`/
 /~~`/_`/
/_m`|`[ec2-user@ip-172-31-94-8 ~]$ lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda    202:0    0   8G  0 disk 
└─xvda1   202:1    0   8G  0 part /
└─xvda127 259:0    0   1M  0 part
└─xvda128 259:1    0 10W  0 part /boot/efi
xvdb    202:16   0 28G  0 disk
[ec2-user@ip-172-31-94-8 ~]$
```

Adding storage after creating an instance

1. After Creating an Instance, go to Volumes, and create a volume.



2. Make Sure that it is set to the same region as the instance



- Select volume, actions-> attach volume and select the instance you want to attach to.

The screenshot shows the AWS CloudShell interface. At the top, there are three tabs: 'Launch AWS Academy Learner', 'Attach volume | EC2 | us-east-1', and '22BD1A053G_EBS - Google Docs'. The main content area is titled 'Attach volume' and shows the following details:

- Basic details**
- Volume ID:** vol-06843df74d301759f
- Availability Zone:** us-east-1d
- Instance:** i-06838c0acf03756d0 (22BD1A053G_EBS) (running)
- Device name:** Select a device name (Recommended device names for Linux: /dev/xvda for root volume, /dev/sdf-f-p for data volumes)
- A note: "Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp."

At the bottom right of the interface are 'Cancel' and 'Attach volume' buttons.

- Now, run “lsblk” again to verify.

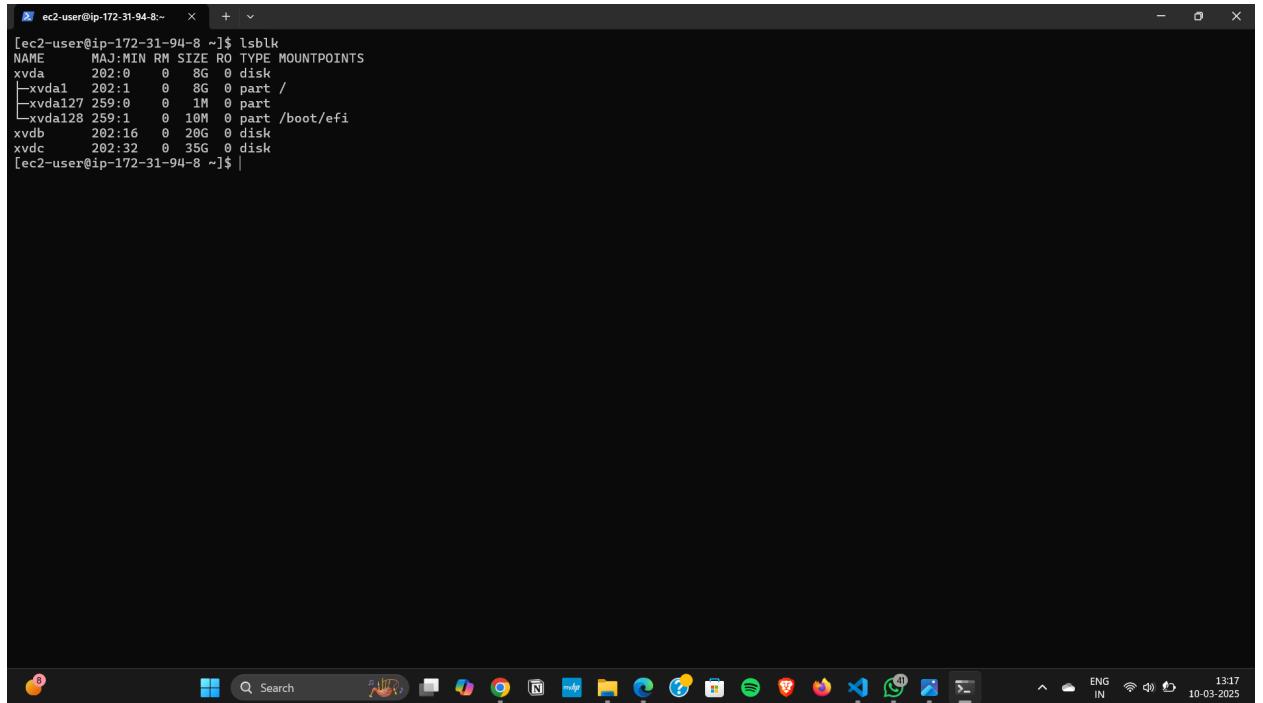
```

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-152-110-208.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
#
# Amazon Linux 2023
# https://aws.amazon.com/linux/amazon-linux-2023
#
[ec2-user@ip-172-31-94-8 ~]$ 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
xvdb   202:16   0 20G  0 disk
[ec2-user@ip-172-31-94-8 ~]$ client_loop: send disconnect: Connection reset
PS C:\Users\nsail\Downloads> ssh -i "JoJoPaapa.pem" ec2-user@ec2-54-152-110-208.compute-1.amazonaws.com
#
# Amazon Linux 2023
# https://aws.amazon.com/linux/amazon-linux-2023
#
Last login: Mon Mar 10 07:30:05 2024 from 157.47.97.244
[ec2-user@ip-172-31-94-8 ~]$ 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
xvdb   202:16   0 20G  0 disk
xvdc   202:32   0 35G  0 disk
[ec2-user@ip-172-31-94-8 ~]$ |

```

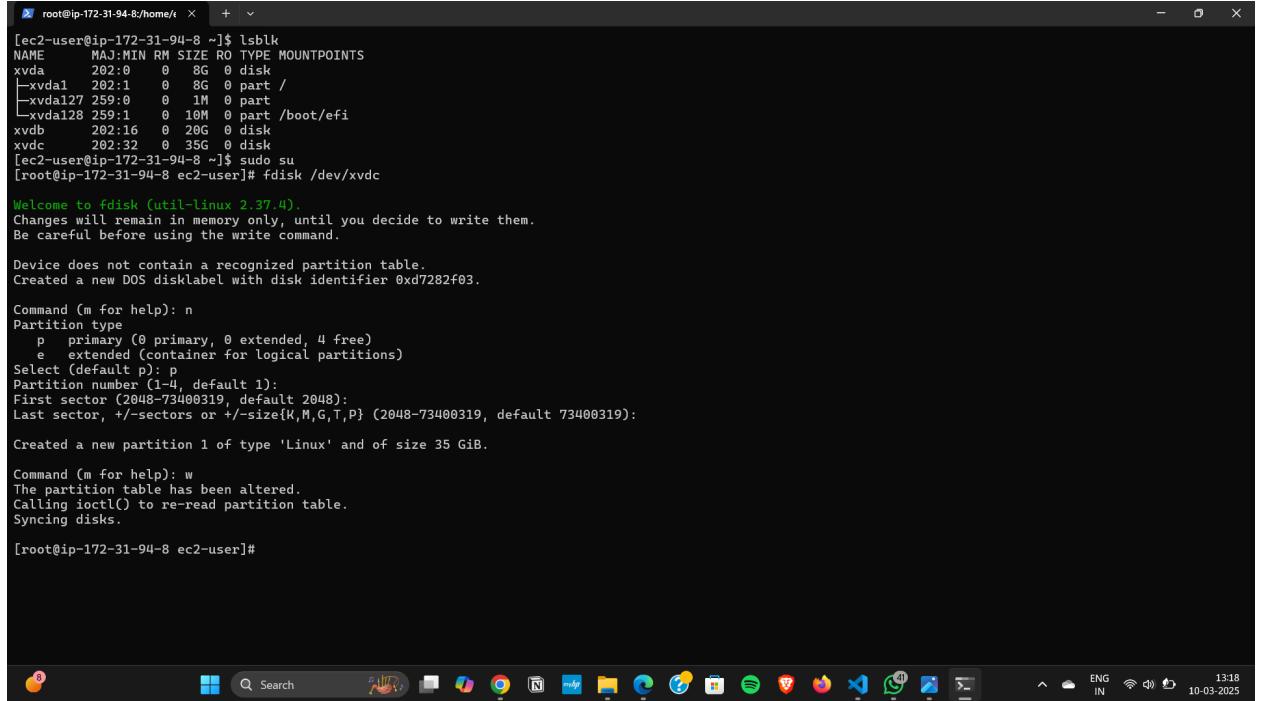
Attaching and Mounting an EBS Volume on an EC2 Instance

1. Create a new instance and connect to it, Create a volume and attach it to the instance. Run the command 'lsblk' to check if the storage is attached or not.



```
[ec2-user@ip-172-31-94-8 ~]$ 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
xvdb    202:16  0 20G  0 disk 
xvdc    202:32  0 35G  0 disk 
[ec2-user@ip-172-31-94-8 ~]$ |
```

2. Create a new primary partition on the disk /dev/xvdc using fdisk. The default partition number is selected, and the changes are saved with the w command



```
[ec2-user@ip-172-31-94-8 ~]$ 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
xvdb    202:16  0 20G  0 disk 
xvdc    202:32  0 35G  0 disk 
[ec2-user@ip-172-31-94-8 ~]$ sudo su
[root@ip-172-31-94-8 ec2-user]# fdisk /dev/xvdc

Welcome to fdisk (util-linux 2.37.4).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0xd7282f03.

Command (m for help): n
Partition type
   p   primary (0 primary, 0 extended, 4 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1):
First sector (2048-73400319, default 2048):
Last sector, +/sectors or +/-size{K,M,G,T,P} (2048-73400319, default 73400319):

Created a new partition 1 of type 'Linux' and of size 35 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

[root@ip-172-31-94-8 ec2-user]# |
```

3. Now refresh the system partition and create a mount point cclab and format the partition with xfs file

```
[root@ip-172-31-94-8 ~]# sudo su
[root@ip-172-31-94-8 ec2-user]# fdisk /dev/xvdc
Welcome to fdisk (util-linux 2.37.4)
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0xd7282f03.

Command (m for help): n
Partition type
  p  primary (0 primary, 0 extended, 4 free)
  e  extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1):
First sector (2048-73400319, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-73400319, default 73400319):
Created a new partition 1 of type 'Linux' and of size 35 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

[root@ip-172-31-94-8 ec2-user]# partprobe
[root@ip-172-31-94-8 ec2-user]# mkdir /mnt/cclab
[root@ip-172-31-94-8 ec2-user]# mkfs.xfs /dev/xvdc1
meta-data=/dev/xvdc1 isize=512 agcount=4, agsize=2293696 blks
      = sectsz=512 attr=2, projid32bit=1
      = crc=1 finobt=1, sparse=1, rmapbt=0
data     = reflink=1 bigtime=1 inobtcount=1
          = bsize=4096 blocks=9174784, imaxpct=25
          = sunit=0 swidth=0 blks
naming   =version 2 bsize=4096 ascii-ci=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-172-31-94-8 ec2-user]# 
```

4. Now mount the partition and verify if it is mounted or not using mount /dev/xvdc1 /mnt/cclab and lsblk -fs

```
Calling ioctl() to re-read partition table.
Syncing disks.

[root@ip-172-31-94-8 ec2-user]# partprobe
[root@ip-172-31-94-8 ec2-user]# mkdir /mnt/cclab
[root@ip-172-31-94-8 ec2-user]# mkfs.xfs /dev/xvdc1
meta-data=/dev/xvdc1 isize=512 agcount=4, agsize=2293696 blks
      = sectsz=512 attr=2, projid32bit=1
      = crc=1 finobt=1, sparse=1, rmapbt=0
data     = reflink=1 bigtime=1 inobtcount=1
          = bsize=4096 blocks=9174784, imaxpct=25
          = sunit=0 swidth=0 blks
naming   =version 2 bsize=4096 ascii-ci=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-172-31-94-8 ec2-user]# mount /dev/xvdc1 /mnt/cclab
[root@ip-172-31-94-8 ec2-user]# lsblk -fs
NAME FSTYPE FSVER LABEL UUID                                     FSAVAIL FSUSE% MOUNTPOINTS
xvda1
└─xvda      /      f3225129-f7e3-4da4-90f7-5035c457993d    6.4G    20% /
xvdb
xvdc1
└─xvdc      fc2c59d8-67c3-4246-9ac6-ca4af7ae8f7a    34.7G    1% /mnt/cclab
xvda127
└─xvda
xvda128
└─xvda      vfat    FAT16      9AA3-6C3B                  8.7M    13% /boot/efi
[root@ip-172-31-94-8 ec2-user]# 
```

Mounting storage and making it persistent

1. Create a volume, configure size to 15gb, make sure the availability zone matches the instance's zone.

The screenshot shows the 'Create volume' page in the AWS Management Console. The 'Volume settings' section is open, displaying the following configuration:

- Volume type:** General Purpose SSD (gp3)
- Size (GiB):** 15 (Min: 1 GiB, Max: 16384 GiB)
- IOPS:** 3000 (Min: 3000 IOPS, Max: 16000 IOPS)
- Throughput (MiB/s):** 125 (Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s)
- Availability Zone:** us-east-1d
- Snapshot ID - optional:** (Leave empty)

The status bar at the bottom indicates the volume was created successfully: "Successfully created volume vol-0f6b1b1274442e14d".

2. Attach the volume by going to actions -> attach volume and choose your EC2 instance

The screenshot shows the 'Volumes' page in the AWS Management Console. A success message at the top states: "Successfully attached volume vol-0f6b1b1274442e14d to instance i-06838c0acf03756d0".

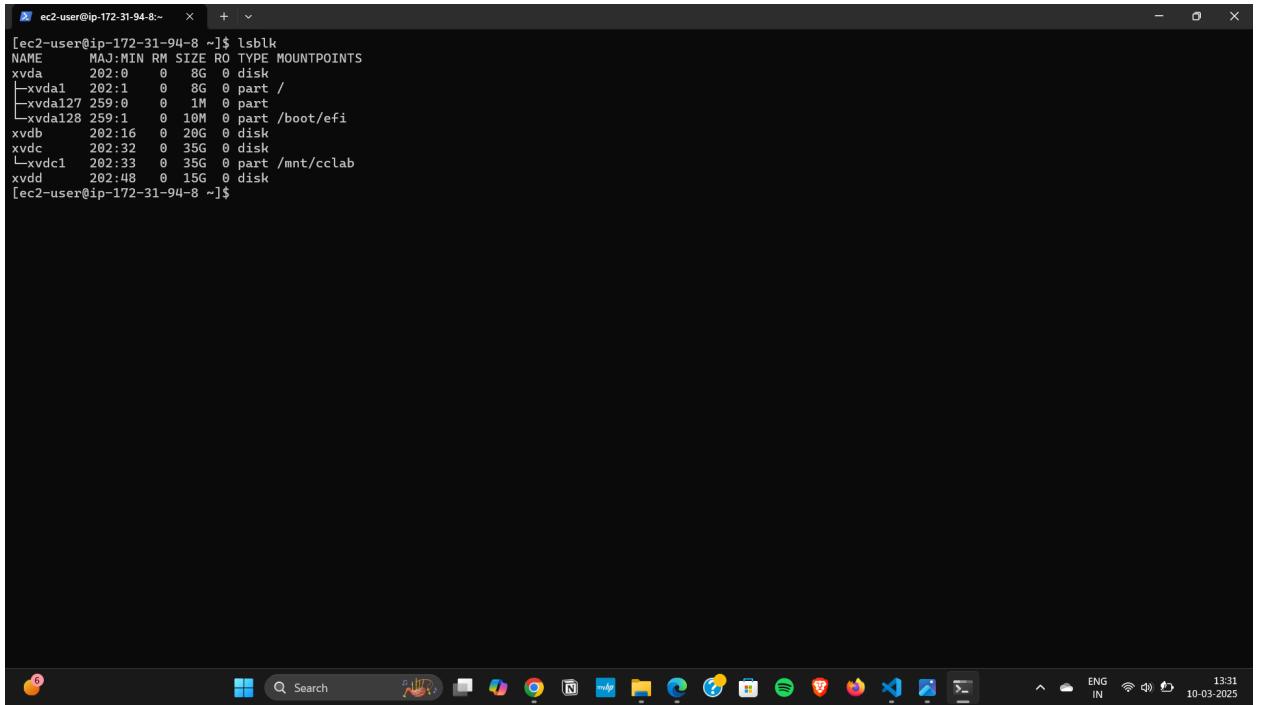
The main table lists six volumes, with the last one being the attached volume:

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
-	vol-0fb3d96fc6f092f13	gp3	8 GiB	3000	125	snap-0a73fd7...	2025/03/10 12:50 GMT+5...
-	vol-06843df74d301759f	gp3	35 GiB	3000	125	-	2025/03/10 13:11 GMT+5...
ne	vol-0291ed4a20b1adfc3	gp3	25 GiB	3000	125	-	2025/03/10 10:01 GMT+5...
-	vol-016f3c9198bf500f9	gp3	8 GiB	3000	125	snap-000e4f2...	2025/03/07 11:09 GMT+5...
-	vol-0f6b1b1274442e14d	gp3	15 GiB	3000	125	-	2025/03/10 13:27:16 GMT+0530 (India Standard Time)

The detailed view for the attached volume (vol-0f6b1b1274442e14d) shows the following information:

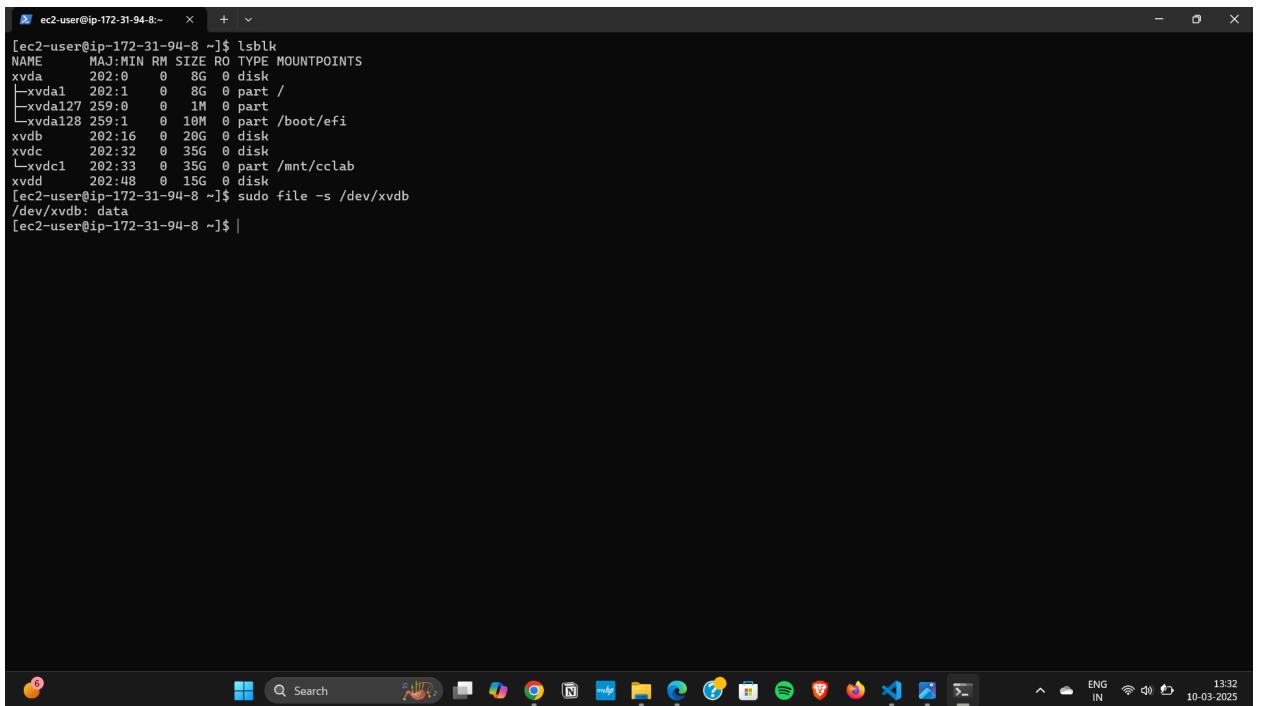
Volume ID: vol-0f6b1b1274442e14d	Size: 15 GiB	Type: gp3	Status check: Okay
AWS Compute Optimizer finding: This user is not authorized to call AWS Compute Optimizer. Retry	Volume state: In-use	IOPS: 3000	Throughput: 125
Fast snapshot restored: No	Availability Zone: us-east-1d	Created: Mon Mar 10 2025 13:27:16 GMT+0530 (India Standard Time)	Multi-Attach enabled: No
Tags:			

3. Connect to the Instance and enter “lsblk” to check if the volume is detected



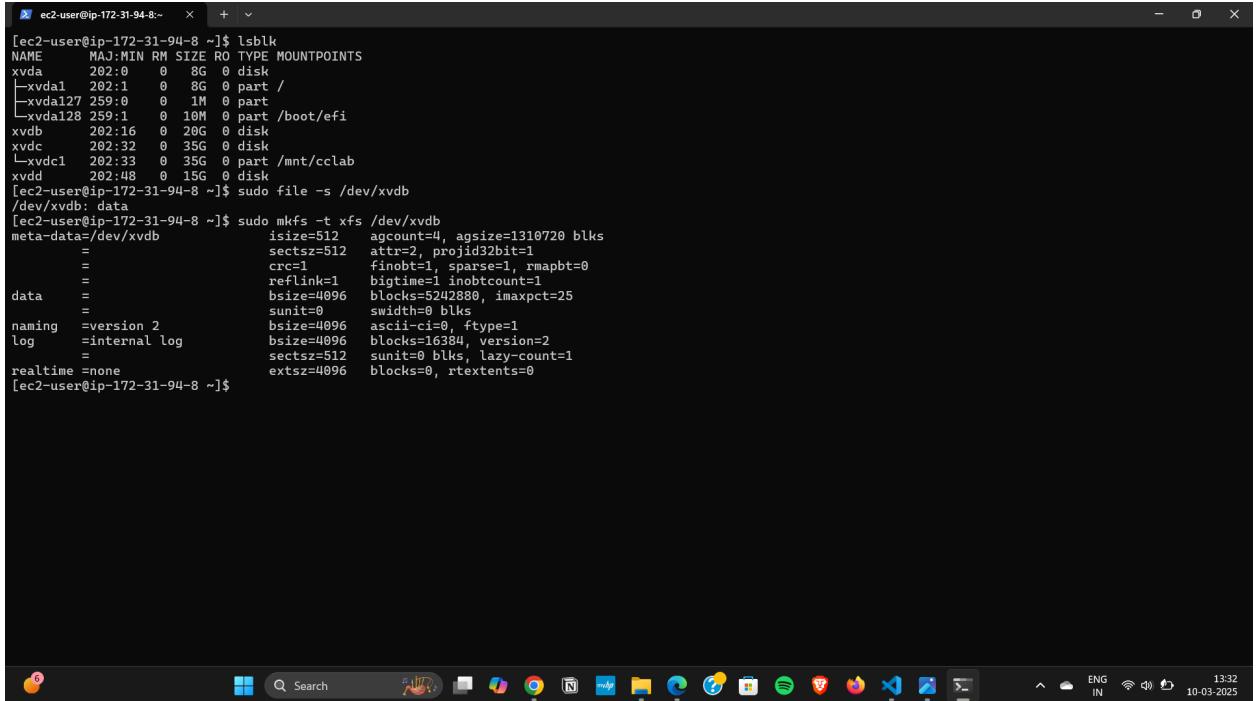
```
[ec2-user@ip-172-31-94-8 ~]$ lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda   202:0   0   8G  0 disk 
└─xvda1 202:1   0   8G  0 part /
└─xvda127 259:0  0   1M  0 part 
└─xvda128 259:1  0   10M 0 part /boot/efi
xvdb   202:16  0  20G  0 disk 
xvdc   202:32  0   35G  0 disk 
└─xvdc1 202:33  0   35G  0 part /mnt/cclab
xvdd   202:48  0   15G  0 disk
[ec2-user@ip-172-31-94-8 ~]$
```

4. Check if the volume already has a filesystem by entering “sudo file -s /dev/xvdb”.
If it shows data, it means the volume is unformatted.



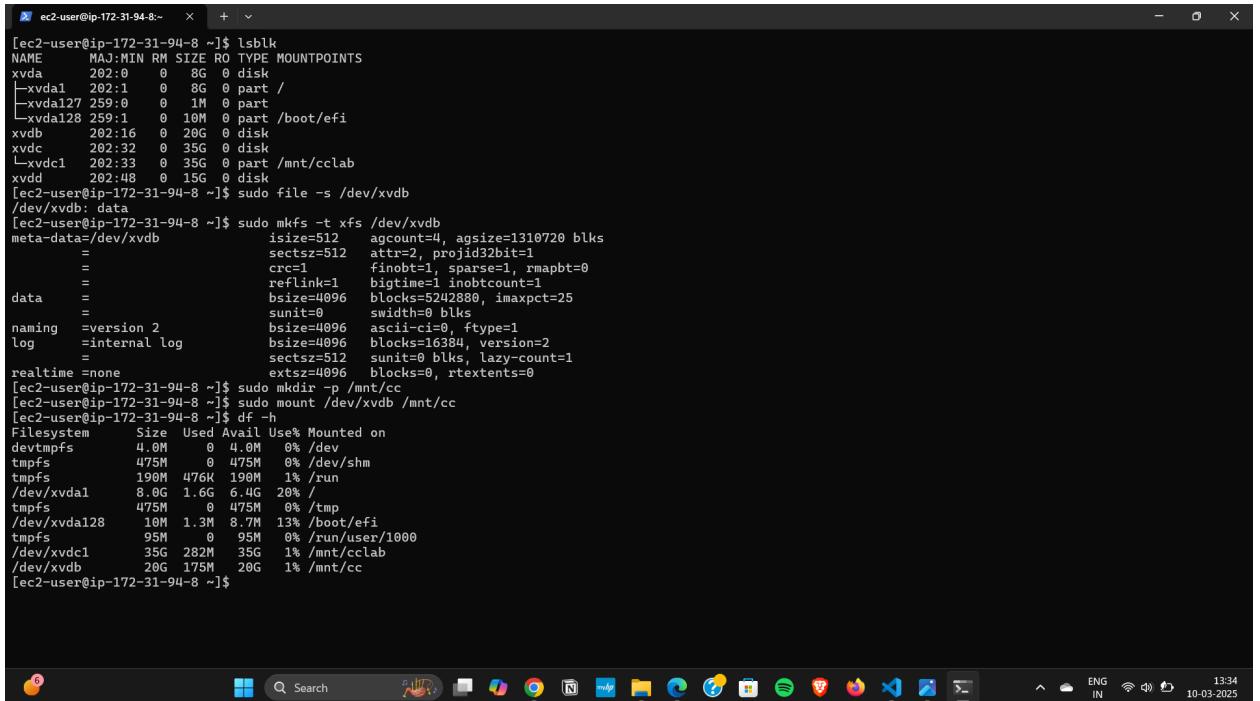
```
[ec2-user@ip-172-31-94-8 ~]$ lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda   202:0   0   8G  0 disk 
└─xvda1 202:1   0   8G  0 part /
└─xvda127 259:0  0   1M  0 part 
└─xvda128 259:1  0   10M 0 part /boot/efi
xvdb   202:16  0  20G  0 disk 
xvdc   202:32  0   35G  0 disk 
└─xvdc1 202:33  0   35G  0 part /mnt/cclab
xvdd   202:48  0   15G  0 disk
[ec2-user@ip-172-31-94-8 ~]$ sudo file -s /dev/xvdb
/dev/xvdb: data
[ec2-user@ip-172-31-94-8 ~]$ |
```

5. Format the volume by entering “sudo mkfs -t xfs /dev/xvdb”



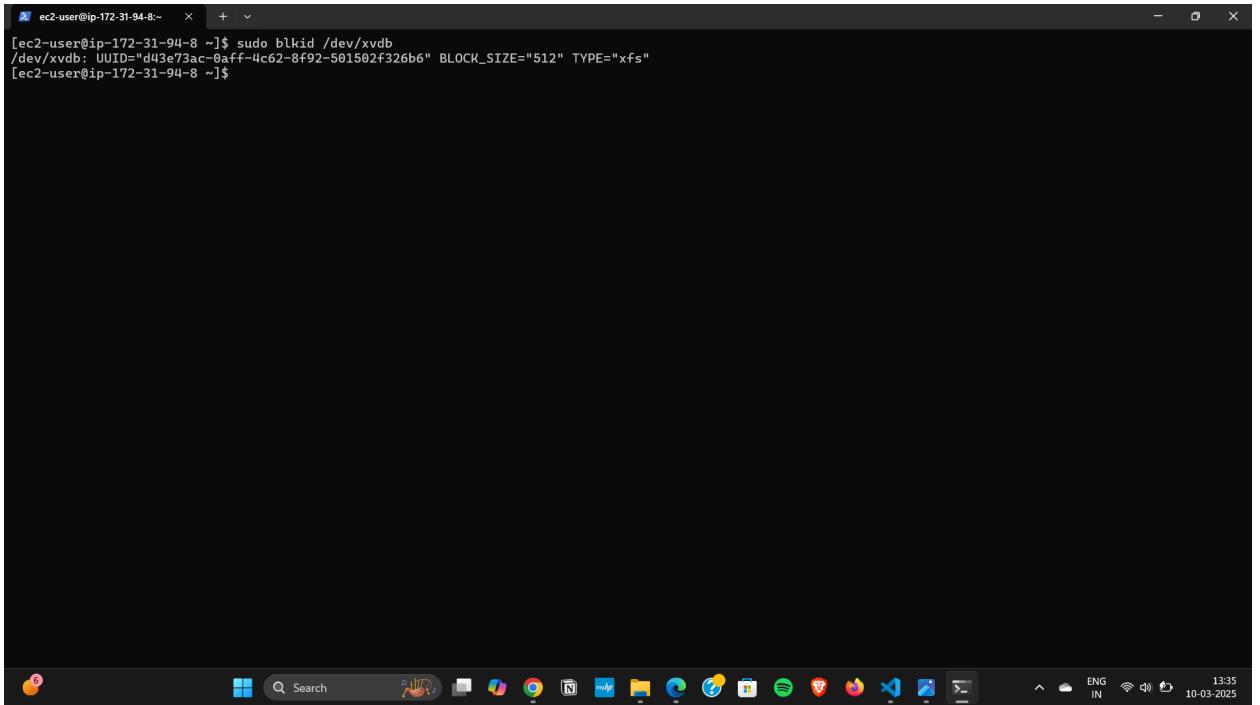
```
[ec2-user@ip-172-31-94-8 ~]$ lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda    202:0   0   8G  0 disk
└─xvda1  202:1   0   8G  0 part /
  └─xvda127 259:0   0   1M  0 part
  └─xvda128 259:1   0  10M 0 part /boot/efi
xvdb    202:16  0  20G 0 disk
xvdc    202:32  0  35G 0 disk
└─xvdc1  202:33  0  35G 0 part /mnt/cclab
xvdd    202:48  0  15G 0 disk
[ec2-user@ip-172-31-94-8 ~]$ sudo file -s /dev/xvdb
/dev/xvdb: data
[ec2-user@ip-172-31-94-8 ~]$ sudo mkfs -t xfs /dev/xvdb
meta-data=/dev/xvdb      isize=512   agcount=4, agsize=1310720 blks
                      =       sectsz=512  attr=2, projid32bit=1
                      =       crc=1    finobt=1, sparse=1, rmapbt=0
                      =       reflink=1 bigtime=1 inobtcount=1
data     =       bsize=4096   blocks=5242880, imaxpct=25
          =       sunit=0   swidth=0 blks
naming  =version 2      bsize=4096   ascii-ci=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
[ec2-user@ip-172-31-94-8 ~]$
```

6. Create a mount point by “sudo mkdir -p /mnt/cc” and mount volume by “sudo mount /dev/xvdb /mnt/cc”. Then, verify mount by “df -h”



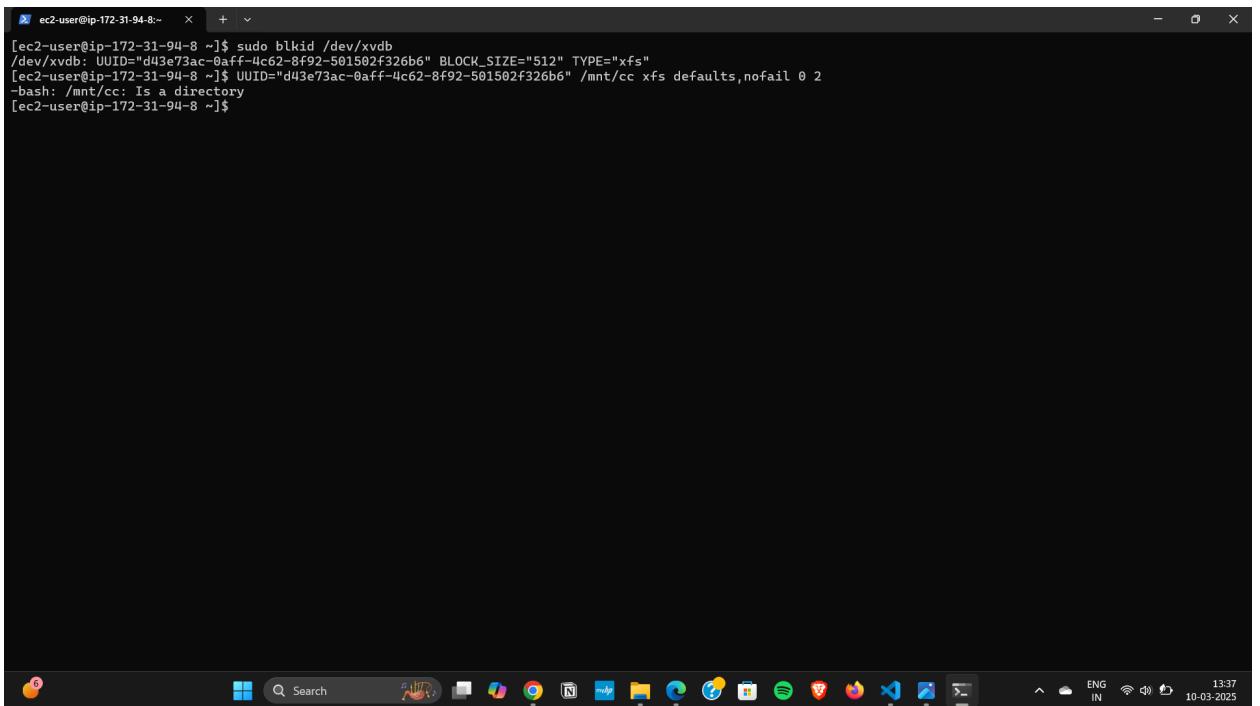
```
[ec2-user@ip-172-31-94-8 ~]$ lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda    202:0   0   8G  0 disk
└─xvda1  202:1   0   8G  0 part /
  └─xvda127 259:0   0   1M  0 part
  └─xvda128 259:1   0  10M 0 part /boot/efi
xvdb    202:16  0  20G 0 disk
xvdc    202:32  0  35G 0 disk
└─xvdc1  202:33  0  35G 0 part /mnt/cclab
xvdd    202:48  0  15G 0 disk
[ec2-user@ip-172-31-94-8 ~]$ sudo file -s /dev/xvdb
/dev/xvdb: data
[ec2-user@ip-172-31-94-8 ~]$ sudo mkfs -t xfs /dev/xvdb
meta-data=/dev/xvdb      isize=512   agcount=4, agsize=1310720 blks
                      =       sectsz=512  attr=2, projid32bit=1
                      =       crc=1    finobt=1, sparse=1, rmapbt=0
                      =       reflink=1 bigtime=1 inobtcount=1
data     =       bsize=4096   blocks=5242880, imaxpct=25
          =       sunit=0   swidth=0 blks
naming  =version 2      bsize=4096   ascii-ci=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
[ec2-user@ip-172-31-94-8 ~]$ sudo mkdir -p /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$ sudo mount /dev/xvdb /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$ df -h
Filesystem      Size  Used Avail Mounted on
/devtmpfs        4.0M   0.0M  4.0M  /dev
tmpfs           475M   0.0M  475M  /dev/shm
tmpfs           190M  476K  190M  /run
/dev/xvda1      8.0G  1.6G  6.4G  /
tmpfs           475M   0.0M  475M  /tmp
/dev/xvda128    10M   1.3M  8.7M  /boot/efi
tmpfs           95M   0.0M  95M   /run/user/1000
/dev/xvdc1      35G  282M  35G   1% /mnt/cclab
/dev/xvdb      20G  175M  20G   1% /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$
```

7. Get UUID of the Volume by entering “sudo blkid /dev/xvdb”



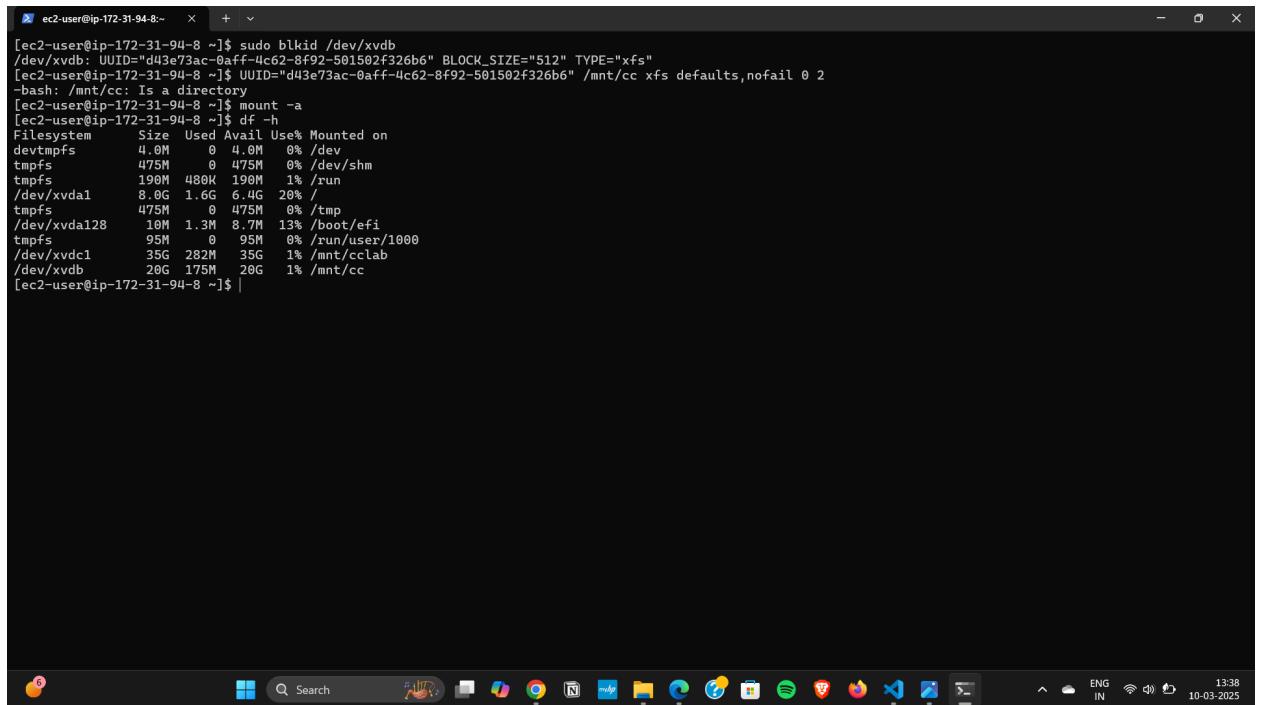
```
ec2-user@ip-172-31-94-8:~$ sudo blkid /dev/xvdb
/dev/xvdb: UUID=d43e73ac-0aff-4c62-8f92-501502f326b6" BLOCK_SIZE="512" TYPE="xfs"
[ec2-user@ip-172-31-94-8 ~]$
```

8. Edit /etc/fstab by adding this `UUID=d43e73ac-0aff-4c62-8f92-501502f326b6 /mnt/cc xfs defaults,nofail 0 2` at the bottom



```
ec2-user@ip-172-31-94-8:~$ sudo blkid /dev/xvdb
/dev/xvdb: UUID=d43e73ac-0aff-4c62-8f92-501502f326b6" BLOCK_SIZE="512" TYPE="xfs"
[ec2-user@ip-172-31-94-8 ~]$ UUID=d43e73ac-0aff-4c62-8f92-501502f326b6" /mnt/cc xfs defaults,nofail 0 2
-bash: /mnt/cc: Is a directory
[ec2-user@ip-172-31-94-8 ~]$
```

9. Run sudo mount -a to check for errors. If there are no errors, the fstab entry is correct. Then reboot, and then run df -h to check if volume is mounted.



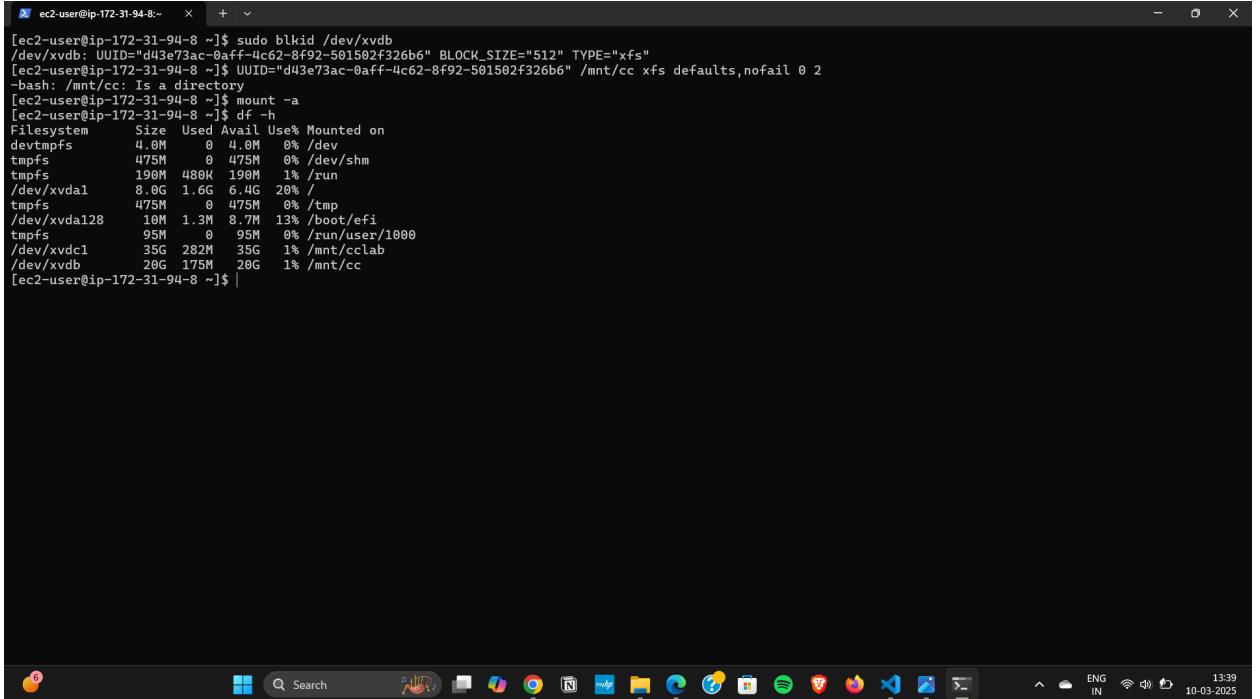
The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "ec2-user@ip-172-31-94-8~". The terminal content shows the execution of several commands:

```
[ec2-user@ip-172-31-94-8 ~]$ sudo blkid /dev/xvdb
/dev/xvdb: UUID="d43e73ac-0aff-4c62-8f92-501502f326b6" BLOCK_SIZE="512" TYPE="xfs"
[ec2-user@ip-172-31-94-8 ~]$ UUID="d43e73ac-0aff-4c62-8f92-501502f326b6" /mnt/cc xfs defaults,nofail 0 2
-bash: /mnt/cc: Is a directory
[ec2-user@ip-172-31-94-8 ~]$ mount -a
[ec2-user@ip-172-31-94-8 ~]$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
/devtmpfs        4.0M    0  4.0M  0% /dev
tmpfs           475M    0  475M  0% /dev/shm
tmpfs           190M  488K  190M  1% /run
/dev/xvda1       8.0G  1.6G  6.4G 20% /
tmpfs           475M    0  475M  0% /tmp
/dev/xvda128     10M  1.3M  8.7M 13% /boot/efi
tmpfs           95M    0   95M  0% /run/user/1000
/dev/xvdc1       35G  282M  35G  1% /mnt/cclab
/dev/xvdb       20G  175M  20G  1% /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$ |
```

The desktop taskbar at the bottom shows various application icons, including a file manager, browser, and system tools. The system tray indicates the date as 10-03-2025 and the time as 13:38.

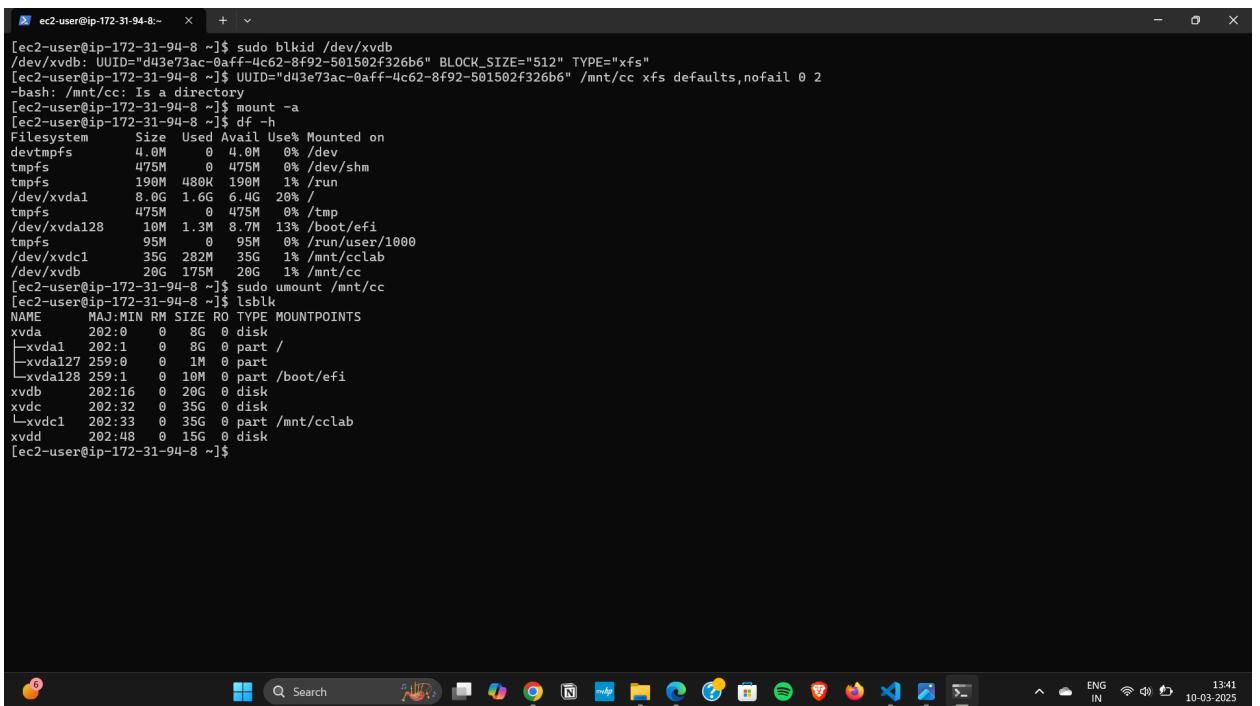
Detach the Volume

1. Check if the volume is mounted by entering, "df -h"



```
[ec2-user@ip-172-31-94-8 ~]$ sudo blkid /dev/xvdb
/dev/xvdb: UUID="d43e73ac-0aff-4c62-8f92-501502f326b6" BLOCK_SIZE="512" TYPE="xfs"
[ec2-user@ip-172-31-94-8 ~]$ UUID="d43e73ac-0aff-4c62-8f92-501502f326b6" /mnt/cc xfs defaults,nofail 0 2
-bash: /mnt/cc: Is a directory
[ec2-user@ip-172-31-94-8 ~]$ mount -a
[ec2-user@ip-172-31-94-8 ~]$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
devtmpfs        4.0M    0  4.0M  0% /dev
tmpfs          475M    0  475M  0% /dev/shm
tmpfs         190M  480K  190M  1% /run
/dev/xvda1       8.0G  1.6G  6.4G  20% /
tmpfs          475M    0  475M  0% /tmp
/dev/xvda128     10M  1.3M  8.7M  13% /boot/efi
tmpfs          95M    0  95M  0% /run/user/1000
/dev/xvdc1        35G  282M  35G  1% /mnt/cclab
/dev/xvdb        20G  175M  20G  1% /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$ |
```

2. Unmount the volume and Verify that it is unmounted.



```
[ec2-user@ip-172-31-94-8 ~]$ sudo blkid /dev/xvdb
/dev/xvdb: UUID="d43e73ac-0aff-4c62-8f92-501502f326b6" BLOCK_SIZE="512" TYPE="xfs"
[ec2-user@ip-172-31-94-8 ~]$ UUID="d43e73ac-0aff-4c62-8f92-501502f326b6" /mnt/cc xfs defaults,nofail 0 2
-bash: /mnt/cc: Is a directory
[ec2-user@ip-172-31-94-8 ~]$ mount -a
[ec2-user@ip-172-31-94-8 ~]$ df -h
Filesystem      Size   Used  Avail Use% Mounted on
devtmpfs        4.0M    0  4.0M  0% /dev
tmpfs          475M    0  475M  0% /dev/shm
tmpfs         190M  480K  190M  1% /run
/dev/xvda1       8.0G  1.6G  6.4G  20% /
tmpfs          475M    0  475M  0% /tmp
/dev/xvda128     10M  1.3M  8.7M  13% /boot/efi
tmpfs          95M    0  95M  0% /run/user/1000
/dev/xvdc1        35G  282M  35G  1% /mnt/cclab
/dev/xvdb        20G  175M  20G  1% /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$ sudo umount /mnt/cc
[ec2-user@ip-172-31-94-8 ~]$ 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
xvdb    202:16  0   20G 0 disk
xvdc    202:32  0   35G 0 disk
└─xvdc1  202:33  0   35G 0 part /mnt/cclab
xvdd    202:48  0   15G 0 disk
[ec2-user@ip-172-31-94-8 ~]$ |
```

3. Go to your volume, Click actions -> detach volume and confirm detachment.

The screenshot shows the AWS EC2 Volumes page. On the left is a navigation sidebar with options like Dashboard, Instances, Images, and Elastic Block Store. The main area displays a table of volumes. Two volumes are listed:

Name	Volume ID	Type	Size	IOPS	Throughput
-	vol-01c000aede1a191a1	gp3	20 GiB	3000	125
<input checked="" type="checkbox"/>	vol-0f6b1b1274442e14d	gp3	15 GiB	3000	125

A context menu is open over the selected volume (vol-0f6b1b1274442e14d). The 'Actions' menu is expanded, showing options like 'Modify volume', 'Create snapshot', 'Create snapshot lifecycle policy', 'Delete volume', 'Attach volume', 'Detach volume' (which is highlighted in blue), 'Force detach volume', 'Manage auto-enabled I/O', 'Manage tags', and 'Fault injection'.

The screenshot shows the same AWS EC2 Volumes page as the previous one. A confirmation dialog box is overlaid on the page, asking "Detach vol-0f6b1b1274442e14d?". The dialog contains the following text:

After you detach a volume, you might still be charged for volume storage. If you no longer need the volume, delete it to stop incurring charges.

Are you sure that you want to detach volume vol-0f6b1b1274442e14d?

Cancel Detach

The 'Detach' button is highlighted with a red border.