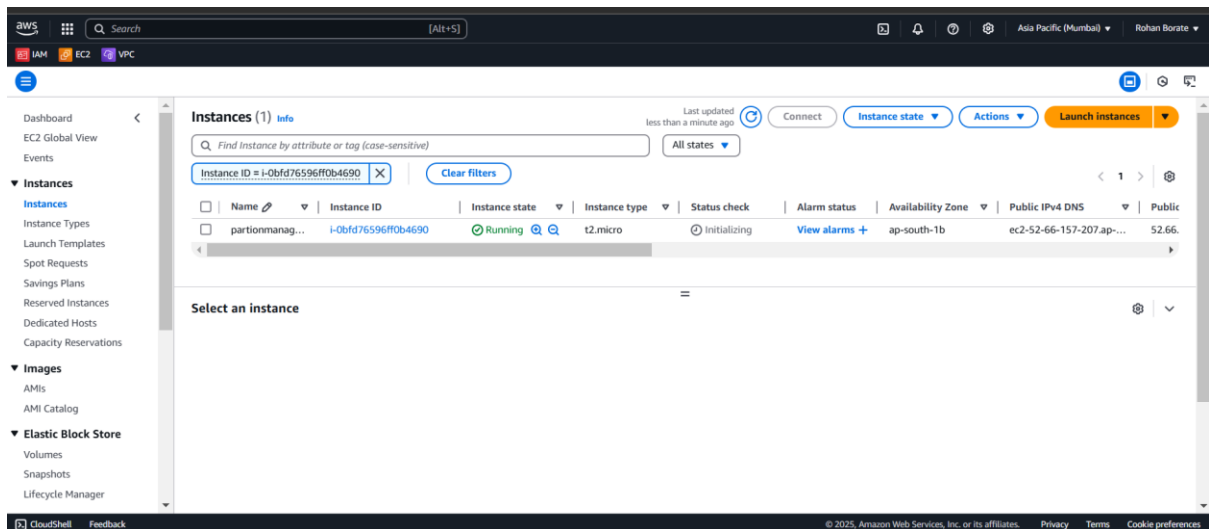


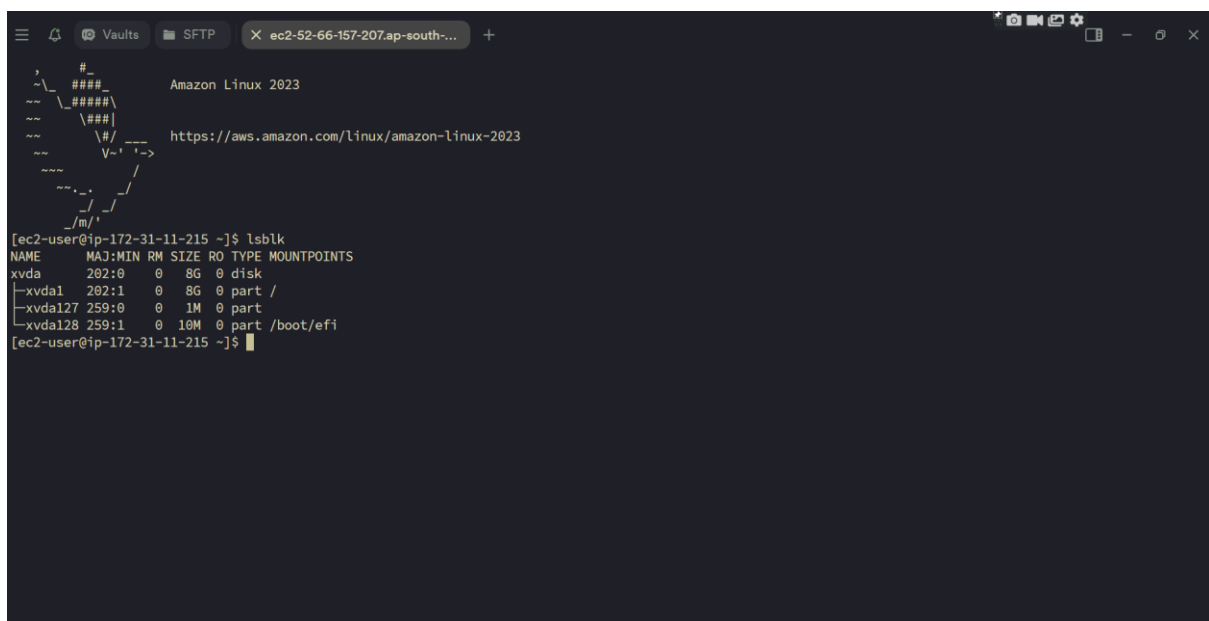
Temporary Partition management

Create an EC2 instance →



Login to this instance and check available volumes and partitions

Command #lsblk



Create new volume and attach this volume to our created instance

The screenshot shows the 'Create volume' page in the AWS Management Console. The page title is 'Create volume' with an 'Info' link. Below the title is a subtitle: 'Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.' The main content area is titled 'Volume settings' and contains several input fields: 'Volume type' (General Purpose SSD (gp3)), 'Size (GiB)' (10), 'IOPS' (3000), 'Throughput (MiB/s)' (125), and 'Availability Zone' (ap-south-1b). Each input field has an 'Info' link next to it. At the bottom of the page, there is a 'Create volume' button.

Volume is created

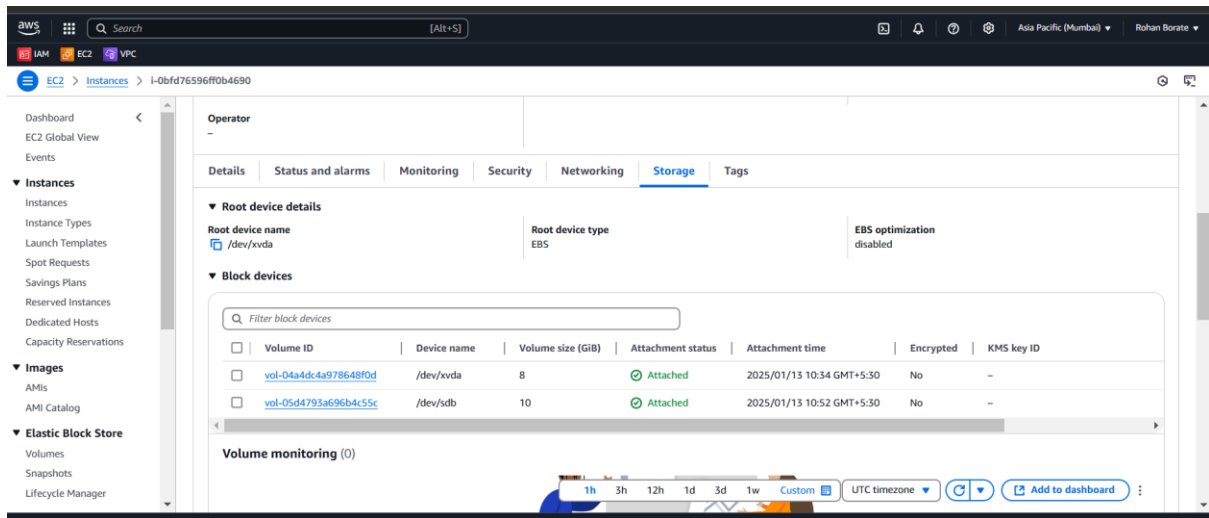
The screenshot shows the 'Volumes' page in the AWS Management Console. The page title is 'Volumes (2)' with an 'Info' link. Below the title is a subtitle: 'Fault tolerance for all volumes in this Region'. The main content area is a table with columns: Name, Volume ID, Type, Size, IOPS, Throughput, Snapshot ID, Created, Availability Zone, and Actions. The table contains two rows of data. The first row has Volume ID 'vol-04a4dc4a978648f0d' and the second row has Volume ID 'vol-0b0b42754d3250eef'. The 'Actions' column for each row contains a dropdown menu with options like 'Attach volume', 'Detach volume', 'Delete volume', and 'Create snapshot'.

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Actions
-	vol-04a4dc4a978648f0d	gp3	8 GiB	3000	125	snap-0d66277...	2025/01/13 10:34 GMT+5:...	ap-south-1b	[Actions]
-	vol-0b0b42754d3250eef	gp3	10 GiB	3000	125	-	2025/01/13 10:40 GMT+5:...	ap-south-1a	[Actions]

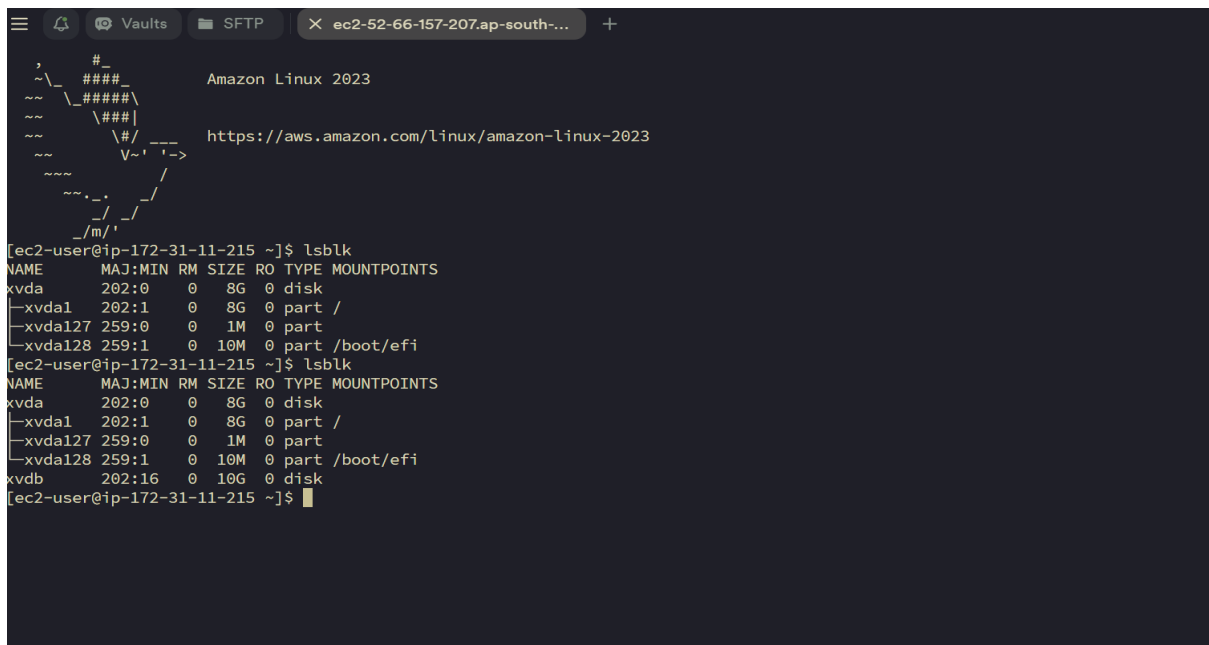
Attach volume to the EC2 instance
click on volume → action → attach volume

The screenshot shows the 'Attach volume' page in the AWS Management Console. The page title is 'Attach volume' with an 'Info' link. Below the title is a subtitle: 'Attach a volume to an instance to use it as you would a regular physical hard disk drive.' The main content area is titled 'Basic details' and contains several input fields: 'Volume ID' (vol-05d4793a696b4c55c), 'Availability Zone' (ap-south-1b), 'Instance' (i-0b0fd76596ff0b4690), and 'Device name' (/dev/sdb). Each input field has an 'Info' link next to it. At the bottom of the page, there is a 'Attach volume' button.

Check in instance details ,volume is attached or not



Go to instance login and check available volumes #lsblk



Xvdb , 10 gb new volume is available , now make the partition of that volume

Using #fdisk command

fdisk /dev/xvdb

```
[ec2-user@ip-172-31-11-215 ~]$ sudo -i
[root@ip-172-31-11-215 ~]# 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  10G  0 disk
[root@ip-172-31-11-215 ~]# fdisk /dev/xvdb^C
[root@ip-172-31-11-215 ~]# fdisk /dev/xvdb

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 0xc06999e7.

Command (m for help): m

Help:

DOS (MBR)
a   toggle a bootable flag
b   edit nested BSD disklabel
c   toggle the dos compatibility flag

Generic
d   delete a partition
F   list free unpartitioned space
l   list known partition types
n   add a new partition
p   print the partition table
```

Press n for new partition

```
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): 1
First sector (2048-20971519, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-20971519, default 20971519): +5G

Created a new partition 1 of type 'Linux' and of size 5 GiB.

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

Check with lsblk that partition is visible

```
[root@ip-172-31-11-215 ~]# 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  10G  0 disk
└─xvdb1      202:17   0   5G  0 part
[root@ip-172-31-11-215 ~]#
```

Now attach the file system to partition

#mkfs.ext4 /dev/xvdb1

```
[root@ip-172-31-11-215 ~]# 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  10G  0 disk
└─xvdb1      202:17   0   5G  0 part
[root@ip-172-31-11-215 ~]# mkfs.ext4 /dev/xvdb1
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 1310720 4k blocks and 327680 inodes
Filesystem UUID: 3aebcf5-a0b2-46be-856c-ee3c0d7154b4
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

[root@ip-172-31-11-215 ~]#
```

Mount the partition to a temporary directory

Create a directory ->mkdir /mnt/temp

mount /dev/xvdb1 /mnt/temp

mount (source) (destination)

```
[root@ip-172-31-11-215 ~]# mkdir /mnt/temp
[root@ip-172-31-11-215 ~]# mount /dev/xvdb1 /mnt/temp
[root@ip-172-31-11-215 ~]# partprobe
[root@ip-172-31-11-215 ~]# 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  10G  0 disk
└─xvdb1      202:17   0   5G  0 part /mnt/temp
[root@ip-172-31-11-215 ~]# 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 456K  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/xvdb1      4.9G  24K  4.6G   1% /mnt/temp
[root@ip-172-31-11-215 ~]#
```

volume is mounted , but it is temporary mount so after restart of instance , it is not available

Command to unmount partition → #umount /mnt/temp

Make Partition using parted command

Commands

```
#parted /dev/xvdb
```

```
mklabel gpt
```

```
mkpart primary ext4 6GiB 9GiB
```

```
quit
```

Command Breakdown

1. **mklabel gpt**

- This initializes the disk with a **GPT (GUID Partition Table)**.
- GPT supports larger disks and more partitions than the older MBR (Master Boot Record).
- **Effect:** All existing data on the disk will be lost.

2. **mkpart primary ext4 6GiB 9GiB**

- Creates a new partition with the following parameters:
 - **Type:** Primary.
 - **Filesystem:** ext4 (the filesystem type is a hint; the partition itself is unformatted at this point).
 - **Start:** 6GiB (partition begins at 6 GiB from the start of the disk).
 - **End:** 9GiB (partition ends at 9 GiB from the start of the disk).

3. **quit**

- Exits the parted utility and saves the changes to the disk.

```
[root@ip-172-31-11-215 ~]# 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  10G  0 disk
   └─xvdb1    202:17   0   5G  0 part /mnt/temp
[root@ip-172-31-11-215 ~]# parted /dev/xvdb
GNU Parted 3.4
Using /dev/xvdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) help
align-check TYPE N          check partition N for TYPE(min|opt) alignment
help [COMMAND]              print general help, or help on COMMAND
mklabel,mktable LABEL-TYPE create a new disklabel (partition table)
mkpart PART-TYPE [FS-TYPE] START END make a partition
name NUMBER NAME            name partition NUMBER as NAME
print [devices|free|list,all|NUMBER] display the partition table, available devices, free space, all found partitions, or a particular partition
quit                        exit program
rescue START END            rescue a lost partition near START and END
resizepart NUMBER END       resize partition NUMBER
rm NUMBER                   delete partition NUMBER
select DEVICE               choose the device to edit
disk_set FLAG STATE         change the FLAG on selected device
disk_toggle [FLAG]          toggle the state of FLAG on selected device
set NUMBER FLAG STATE       change the FLAG on partition NUMBER
toggle [NUMBER [FLAG]]      toggle the state of FLAG on partition NUMBER
unit UNIT                   set the default unit to UNIT
version                     display the version number and copyright information of GNU Parted
(parted) 
```

```
[root@ip-172-31-11-215 ~]#
[root@ip-172-31-11-215 ~]#
[root@ip-172-31-11-215 ~]# parted /dev/xvdb
GNU Parted 3.4
Using /dev/xvdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mklabel gpt
Warning: The existing disk label on /dev/xvdb will be destroyed and all data on this disk will be lost. Do you want to continue?
Yes/No? yes
(parted) mkpart primary ext4 6GiB 10GiB
Error: The location 10GiB is outside of the device /dev/xvdb.
(parted) mkpart primary ext4 6GiB 9GiB
(parted) quit
Information: You may need to update /etc/fstab.

[root@ip-172-31-11-215 ~]# 
```

Now partition is done ,

```
[root@ip-172-31-11-215 ~]#
[root@ip-172-31-11-215 ~]#
[root@ip-172-31-11-215 ~]# parted /dev/xvdb
GNU Parted 3.4
Using /dev/xvdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mklabel gpt
Warning: The existing disk label on /dev/xvdb will be destroyed and all data on this disk will be lost. Do you want to continue?
Yes/No? yes
(parted) mkpart primary ext4 6GiB 10GiB
Error: The location 10GiB is outside of the device /dev/xvdb.
(parted) mkpart primary ext4 6GiB 9GiB
(parted) quit
Information: You may need to update /etc/fstab.

[root@ip-172-31-11-215 ~]# 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  10G  0 disk
   └─xvdb1    202:17   0   3G  0 part
[root@ip-172-31-11-215 ~]# 
```

on the similar like above you just have to mount that partition with #mount command