

# MOUNTING

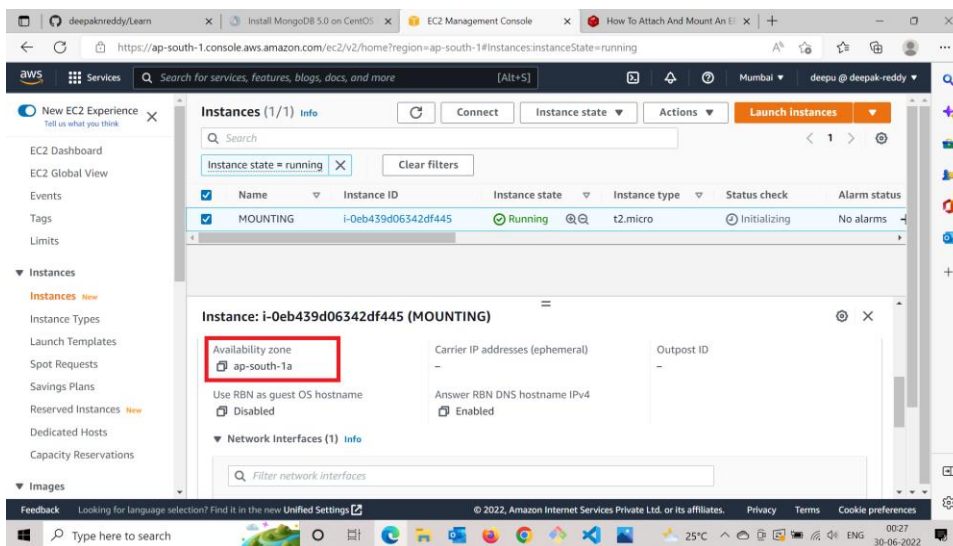
Mounting is just attaching an additional storage space/ device to our server and making it accessible or usable.

Here, in AWS the additional storage is called volume, EBS volume can be attached to EC2 instance.

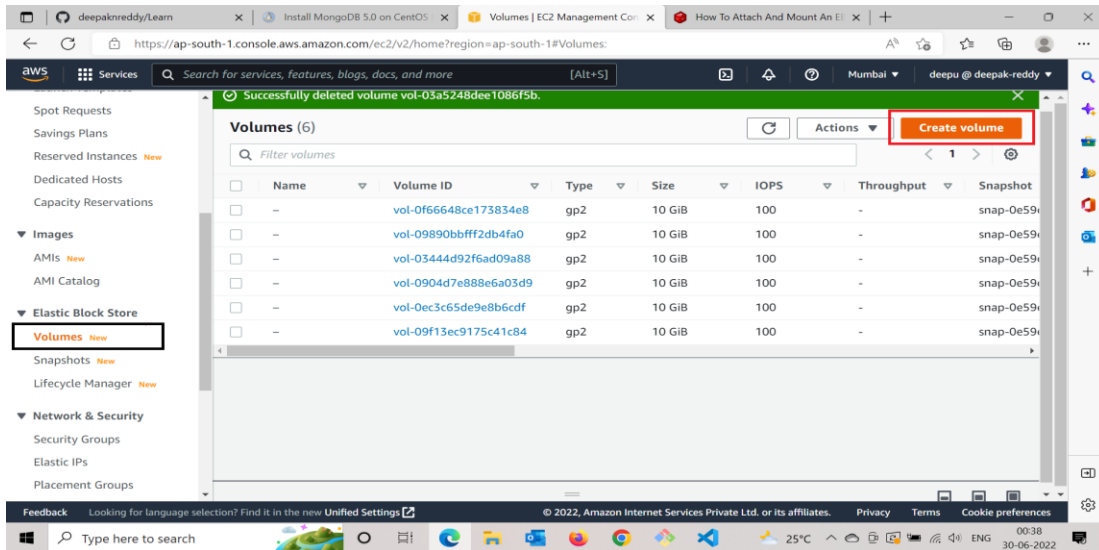
There are many types of EBS volumes which we can mount/attach to a server, but generally 'General purpose SSD (gp2)' is most used.

General Purpose SSD (gp2)
General Purpose SSD (gp3)
Provisioned IOPS SSD (io1)
Provisioned IOPS SSD (io2)
Cold HDD (sc1)
Throughput Optimized HDD (st1)
Magnetic (standard)
General Purpose SSD (gp2)

**STEP1:** create an EC2 instance or select an already existing instance, and find the availability zone in which the instance is created.



**STEP2:** create a volume,



a. under EC2 instance, Elastic Block storage>volume>create volume

b. choose gp2 and the size of the volume preferred, and create volume.

Note: choose availability zone same as the instance's availability zone.

**Create volume** [Info](#)

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

**Volume settings**

Volume type [Info](#)  
General Purpose SSD (gp2)

Size (GiB) [Info](#)  
40  
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS [Info](#)  
120 / 3000  
Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Throughput (MiB/s) [Info](#)  
Not applicable

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40  
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

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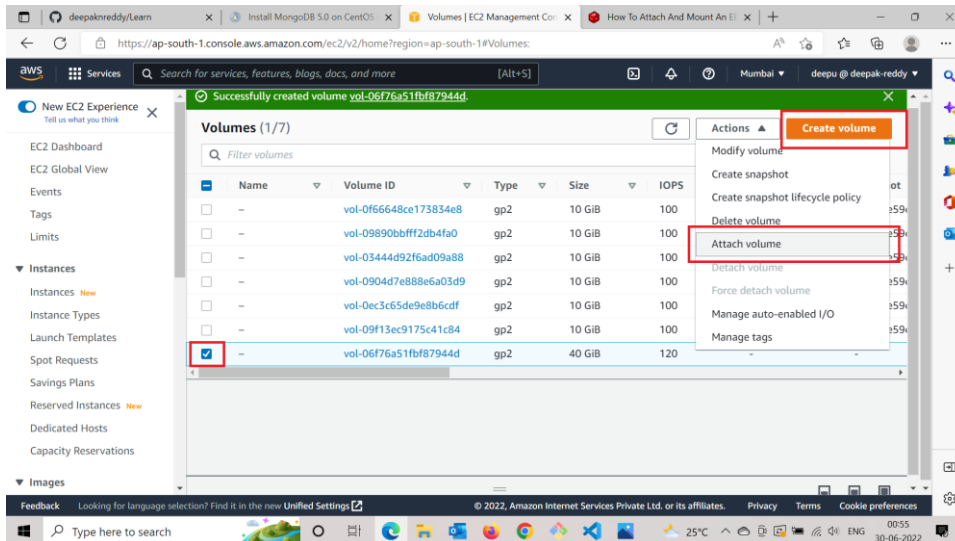
Availability Zone [Info](#)  
ap-south-1a

Snapshot ID - optional [Info](#)  
Don't create volume from a snapshot

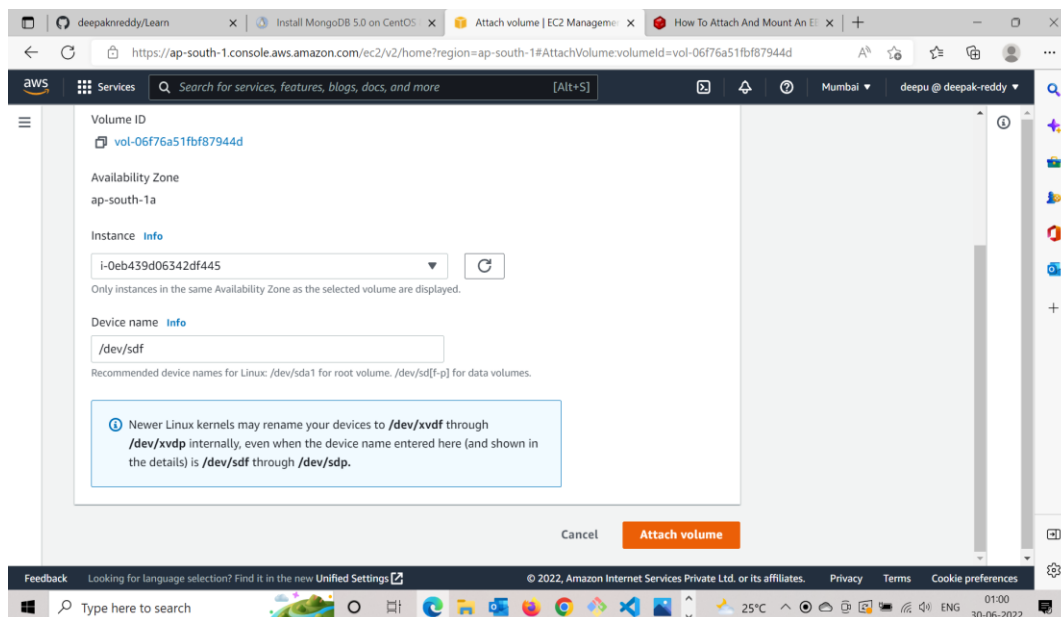
Encryption [Info](#)  
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances  
☐ Encrypt this volume

**STEP3:**after creating the volume , and once the volume is available to use,  
attach it to the desired EC2 instance,

a.



b.



**STEP4:** login into the corresponding ec2 server and list the available disks

```
# lsblk
```

**STEP5:** check if the volume has any data,

```
# file -s /dev/xvdf
```

If the output is “/dev/xvdf: data” then its empty .

**STEP6:** Format the volume to the ext4 or xfs filesystem, use the following command

```
# mkfs -t ext4 /dev/xvdf
```

(or)

```
# mkfs -t xfs /dev/xvdf
```

**STEP7:** create a directory of your choice to where you want to mount the volume,

```
# mkdir /extra
```

**STEP8:** mount the volume to ‘ /extra ‘ directory

```
#mount /dev/xvdf /extra
```

**STEP9:** if you want to unmount ,use the following command,

```
#umount/dev/xvdf
```

(HOWEVER THE ABOVE METHOD IS NOT PERMANENT, IT UNMOUNTS WHENEVER THERE IS A SEVER RESTART)

**TO PERMANENT MOUNT :**

1. Open /etc/fstab file,

Add the following line in the file,

```
/dev/xvdf /extra ext4 defaults 0 0
```

Now save it,its done.

Note: the syntax for the above line:

device\_name mount\_point file\_system\_type fs\_mntops fs\_freq fs\_passno