



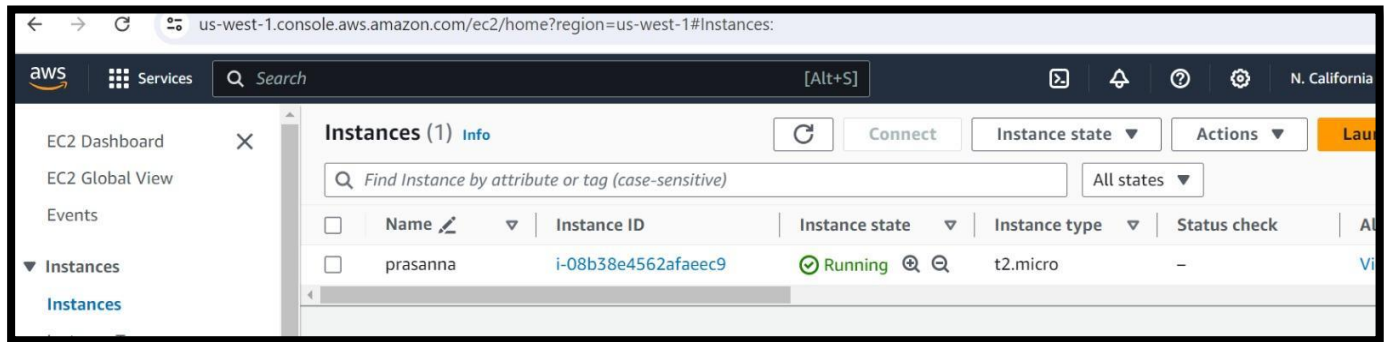
## **ASSIGNMENT-1**

- A. Attach one EBS to one instance
- B. Attach one EFS to two instances

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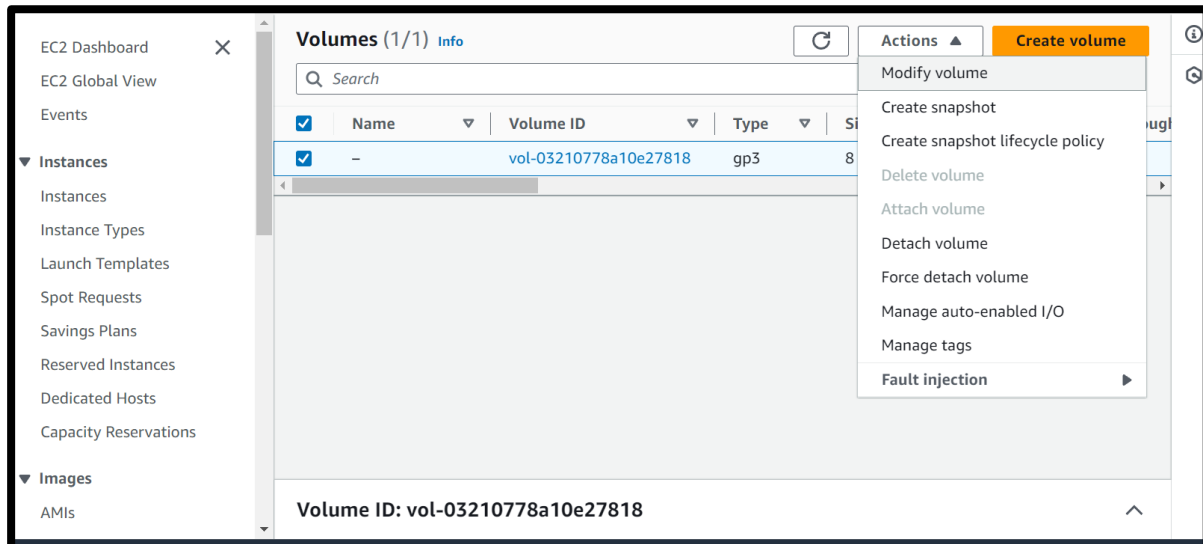
# A. Attach one EBS to one instance

## ❖ Create an instance



```
root@ip-172-31-27-14:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.6G  5.2G  23% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-27-14:~#
```

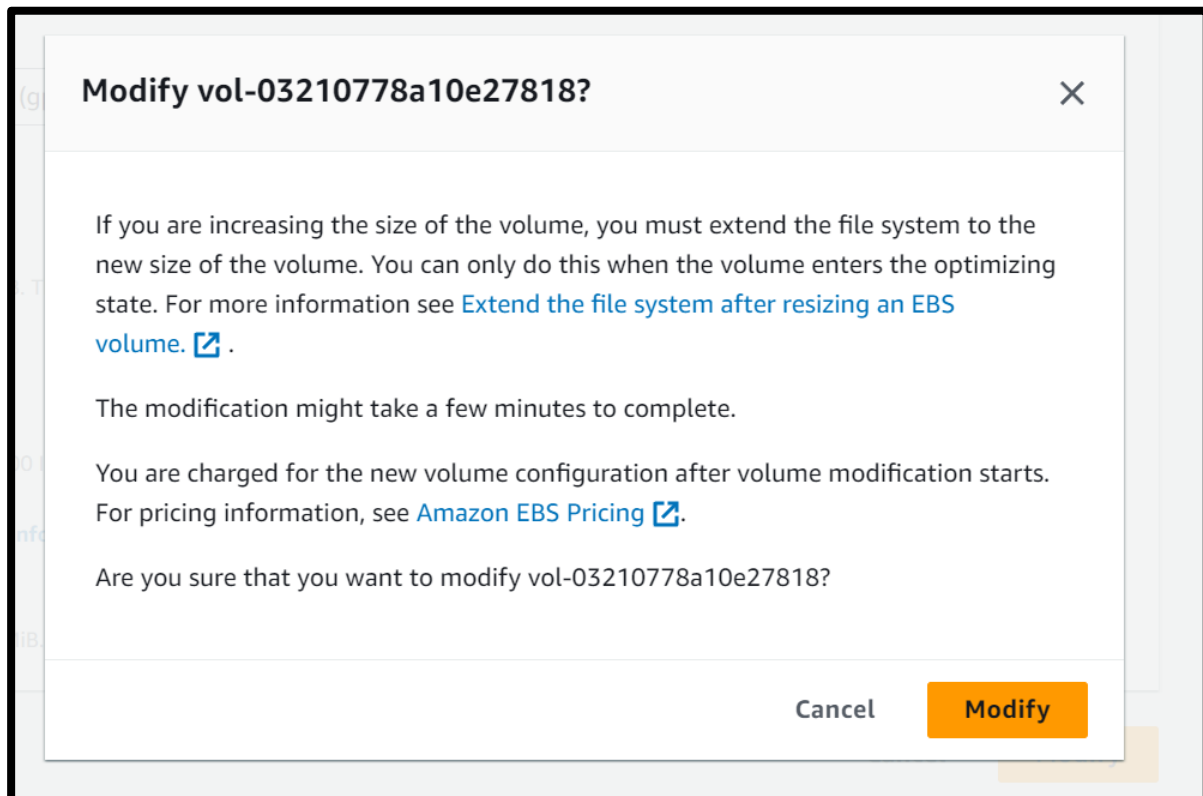
## ❖ Modify volume



The screenshot shows the AWS Management Console 'Volumes' page. On the left is a navigation sidebar with links to EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, and AMIs. The main panel is titled 'Volumes (1/1) Info' and contains a search bar and a table of volumes. One volume is listed with ID 'vol-03210778a10e27818' and type 'gp3'. An 'Actions' dropdown menu is open, showing options: 'Modify volume', 'Create snapshot', 'Create snapshot lifecycle policy', 'Delete volume', 'Attach volume', 'Detach volume', 'Force detach volume', 'Manage auto-enabled I/O', 'Manage tags', and 'Fault injection'. A 'Create volume' button is visible in the top right corner.

	Name	Volume ID	Type	Size
<input checked="" type="checkbox"/>	-	vol-03210778a10e27818	gp3	8

Volume ID: vol-03210778a10e27818



The screenshot shows a confirmation dialog box titled 'Modify vol-03210778a10e27818?'. The dialog contains the following text:

If you are increasing the size of the volume, you must extend the file system to the new size of the volume. You can only do this when the volume enters the optimizing state. For more information see [Extend the file system after resizing an EBS volume](#).

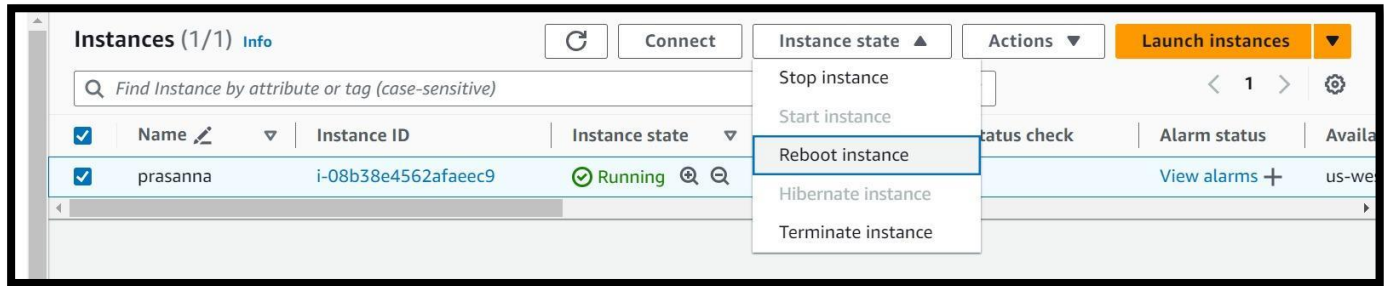
The modification might take a few minutes to complete.

You are charged for the new volume configuration after volume modification starts. For pricing information, see [Amazon EBS Pricing](#).

Are you sure that you want to modify vol-03210778a10e27818?

At the bottom right, there are two buttons: 'Cancel' and 'Modify'.

## ❖ Reboot instance



```
root@ip-172-31-27-14:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        19G   1.6G   17G   9% /
tmpfs            479M    0   479M   0% /dev/shm
tmpfs            192M  860K   191M   1% /run
tmpfs            5.0M    0   5.0M   0% /run/lock
/dev/xvda16      881M   76M   744M  10% /boot
/dev/xvda15      105M   6.1M    99M   6% /boot/efi
tmpfs            96M   12K    96M   1% /run/user/1000
root@ip-172-31-27-14:~#
```

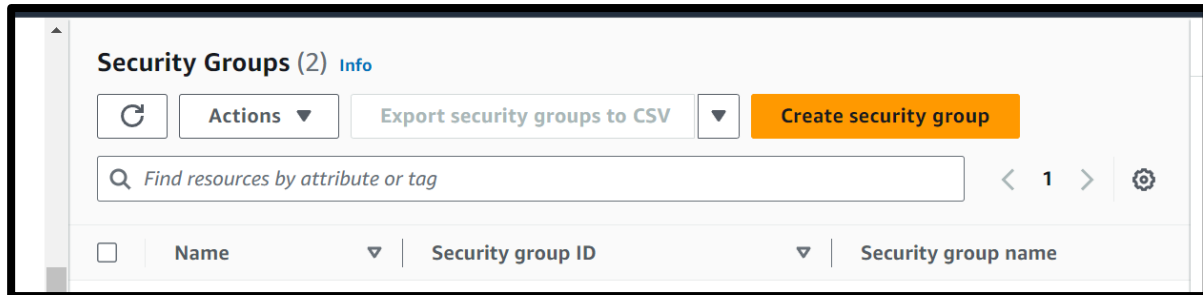
## ❖ Process

- List all the block devices in Linux machine
- Check if there any file system on this device
- Create file system
- Check if there any file system on this device
- Create a directory
- Mount the directories
- Check the disk free space
- List all block device by using “lsblk” command
- Check file system by using “file -s /dev/xvdf” command
- Create directory by using “mkdir -p app/user” command
- Mount the directory by using “mount /dev/xvdf app/user” command
- To check disk free by using “df -h” command

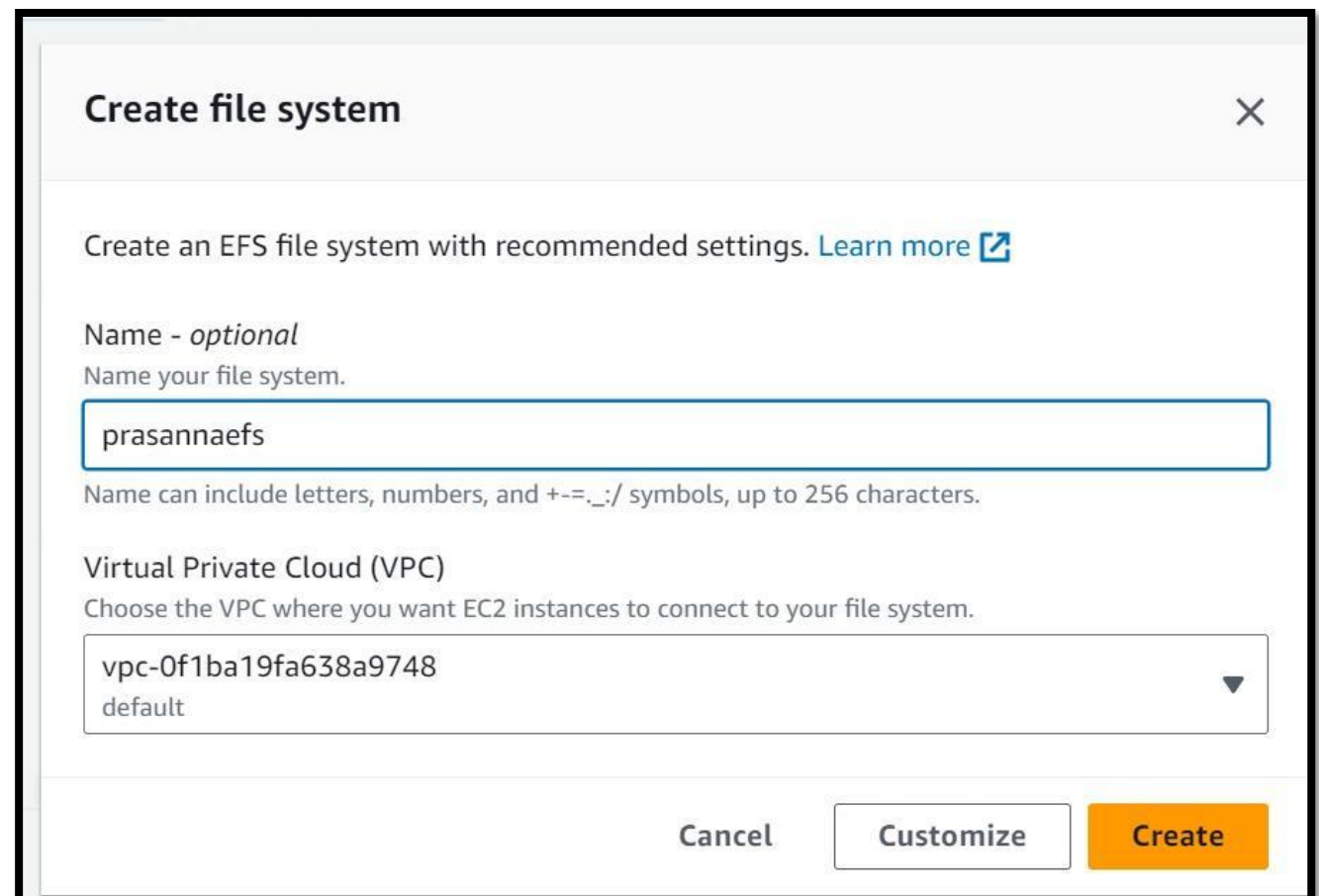
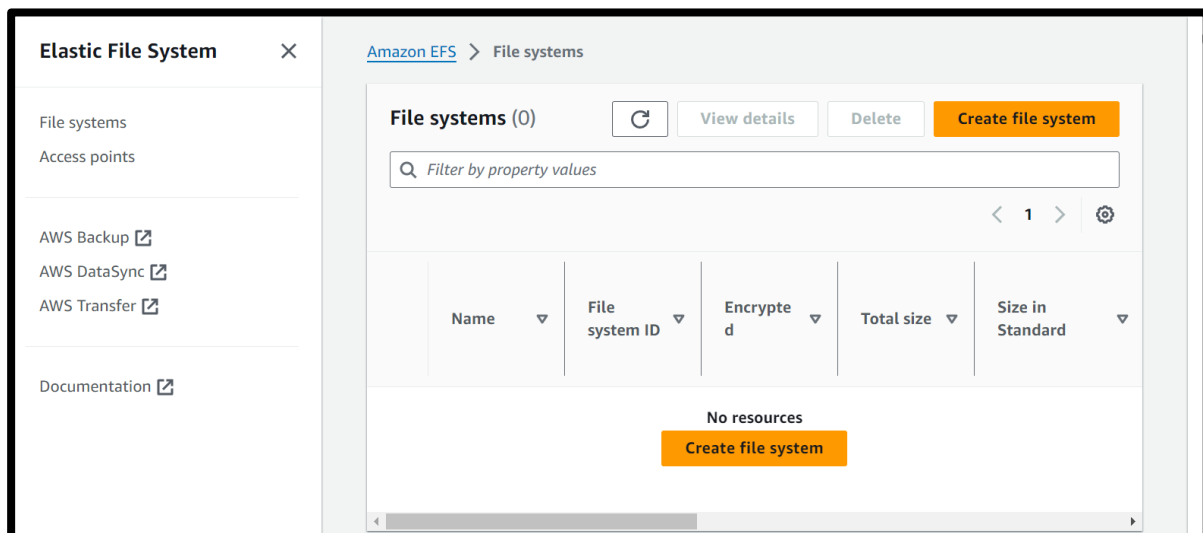
```
root@ip-172-31-21-250:~# mkdir -p vcube/vcube126
root@ip-172-31-21-250:~# mount /dev/xvdf/vcube/vcube126
mount: /dev/xvdf/vcube/vcube126: can't find in /etc/fstab.
root@ip-172-31-21-250:~# mount /dev/xvdf vcube/vcube126
root@ip-172-31-21-250:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        19G   1.6G   17G   9% /
tmpfs            479M    0   479M   0% /dev/shm
tmpfs            192M  864K   191M   1% /run
tmpfs            5.0M    0    5.0M   0% /run/lock
/dev/xvda16      881M   76M   744M  10% /boot
/dev/xvda15      105M   6.1M   99M    6% /boot/efi
tmpfs            96M   12K   96M    1% /run/user/1000
/dev/xvdf         10G  228M   9.8G    3% /root/vcube/vcube126
root@ip-172-31-21-250:~# |
```

## B. Attach one EFS to two instances

### ❖ Create a security group



### ❖ Create a EFS file system



## Network

Virtual Private Cloud (VPC) [Learn more](#)

Choose the VPC where you want EC2 instances to connect to your file system.

vpc-0bea4065406657921  
default

## Mount targets

A mount target provides an NFSv4 endpoint at which you can mount an Amazon EFS file system. We recommend creating one mount target per Availability Zone. [Learn more](#)

Availability zone

us-west-1a

Subnet ID

subnet-0a8f75fc900908c2e

IP address

Automatic

Security groups

Choose security groups

sg-040b8130c30c6a547

Availability zone

us-west-1a

Subnet ID

subnet-0cedaa36fc

IP address

172.31.3.50

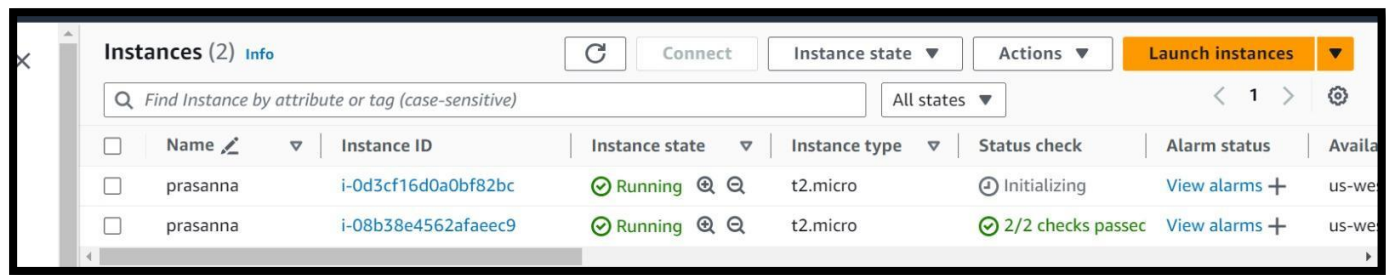
Security groups

Choose secur... ▼

Remove

sg-008b2e0ccf3be0d57  
prasanna

# Launch two instances with different zones and connect instances



## EFS - Elastic File Storage

It is designed to share parallelly with thousands of EC2 instances to provide better throughput and IOPS. It is a regional service automatically replicated across multiple AZs to provide High availability and durability.

### ➔ In server1

Create a file system in one server  
Store some data in that file system

### ➔ In server2

Create a file system in one server  
Store some data in that file system

Both servers share same file and data these types of data sharing are known as EFS.



## ❖ Server 1

```
[ec2-user@ip-172-31-15-175 ~]$ sudo -i
[root@ip-172-31-15-175 ~]# cd /mnt
[root@ip-172-31-15-175 mnt]# ls
efs
[root@ip-172-31-15-175 mnt]# cd efs
[root@ip-172-31-15-175 efs]# ls
fs1
[root@ip-172-31-15-175 efs]# cd fs1
-bash: cd: efs: No such file or directory
[root@ip-172-31-15-175 efs]#
[root@ip-172-31-15-175 efs]# cd fs1
[root@ip-172-31-15-175 fs1]# vi file1
[root@ip-172-31-15-175 fs1]#
```

## ❖ Server 2

```
[root@ip-172-31-27-36 ~]# cd /mnt
[root@ip-172-31-27-36 mnt]# ls
efs
[root@ip-172-31-27-36 mnt]# cd efs
[root@ip-172-31-27-36 efs]# ls
fs1
[root@ip-172-31-27-36 efs]# cd fs1
[root@ip-172-31-27-36 fs1]# ls
file1
[root@ip-172-31-27-36 fs1]# vi file2
[root@ip-172-31-27-36 fs1]# ls
file1 file2
[root@ip-172-31-27-36 fs1]#
```