Amazon Web Services

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Mounting multiple instances to the EFS (Tasks)

INTRODUCTION

AWS provides cloud computing platforms and API's to individuals and companies on pay-as-you-go basis.

It offers reliable, scalable and inexpensive cloud services.

AMAZON EFS

Amazon Elastic File System (Amazon EFS) provides serverless, fully elastic file storage so that you can share file data without provisioning or managing storage capacity and performance.

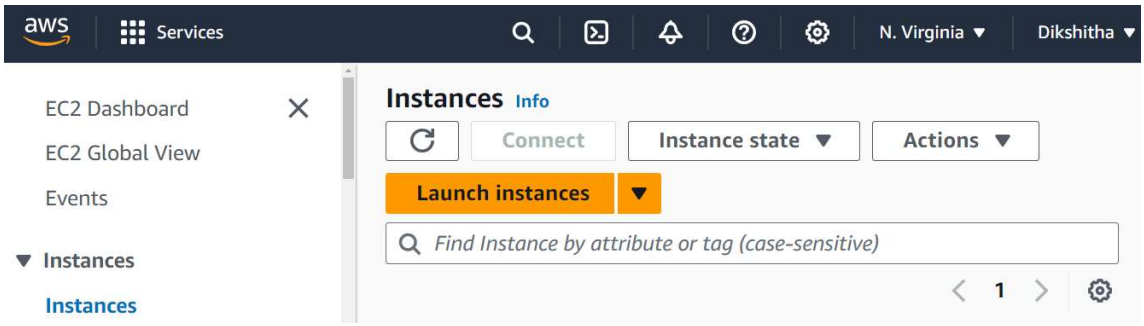
TASK GIVEN

Tasks To Be Performed:
1. Create an EFS and connect it to 3 different EC2 instances.
Make sure that all instances have different operating systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

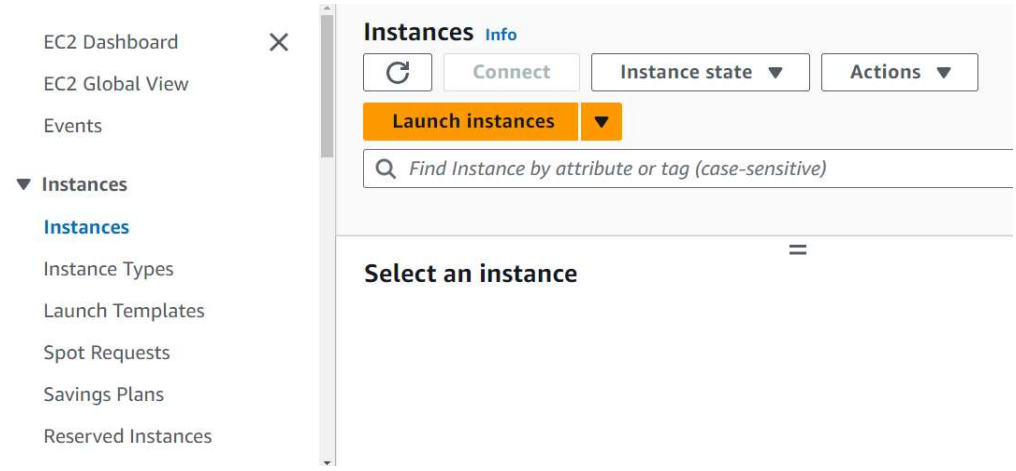
TASK :

Launch three EC2 instances.

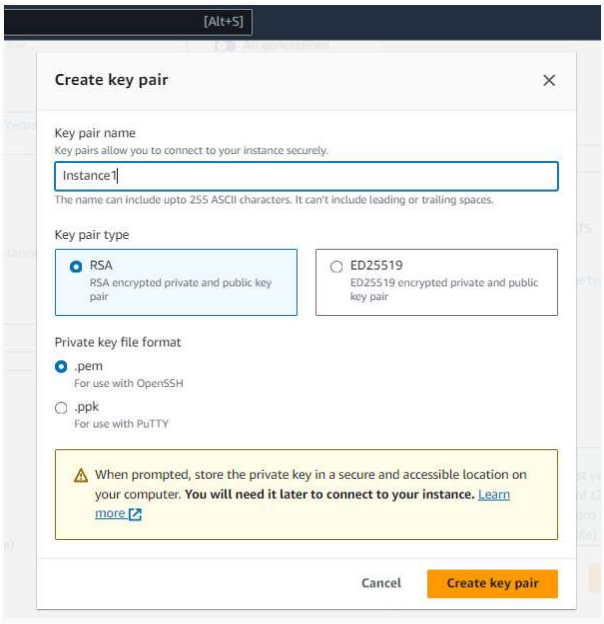
1. Login in the AWS account and then redirect to the EC2 dashboard.
2. Select the region in which we need to create the instance. Here I'm selecting the region US-East-1 (N. Virginia).



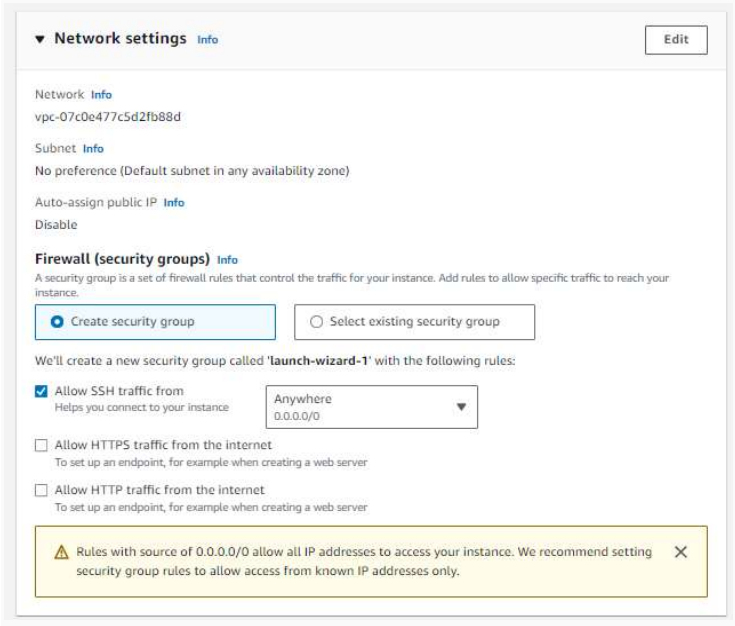
3. We can find the Instances tab on the left menu, tap on it and then tap on “Launch Instances”.



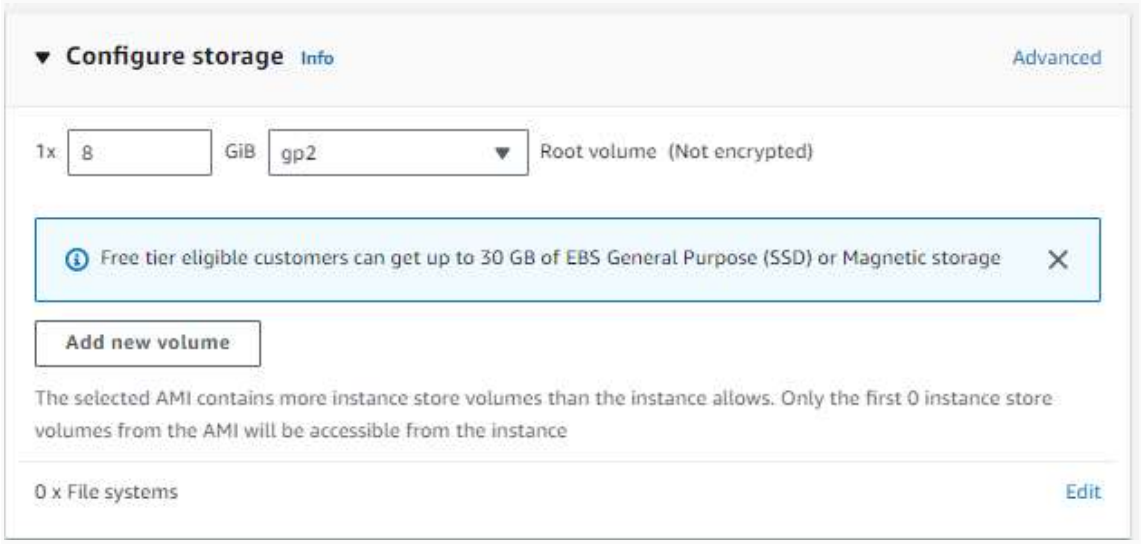
4. Give a name to the instance, select the Application and OS Images (Amazon Machine Image) and instance type (I selected t2.micro).
5. Next comes the Key pair. If we have already created key pair values then we can select them if not we need to create the new key pair.



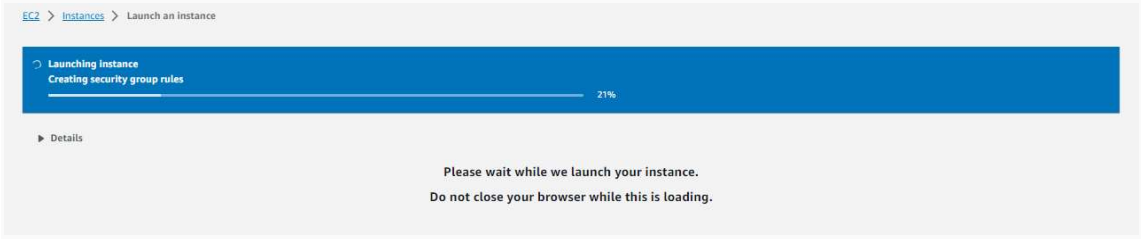
6. Next is about the network settings. If we allow SSH traffic then it means it is available at port 22 and also allow http protocol to work on web servers.

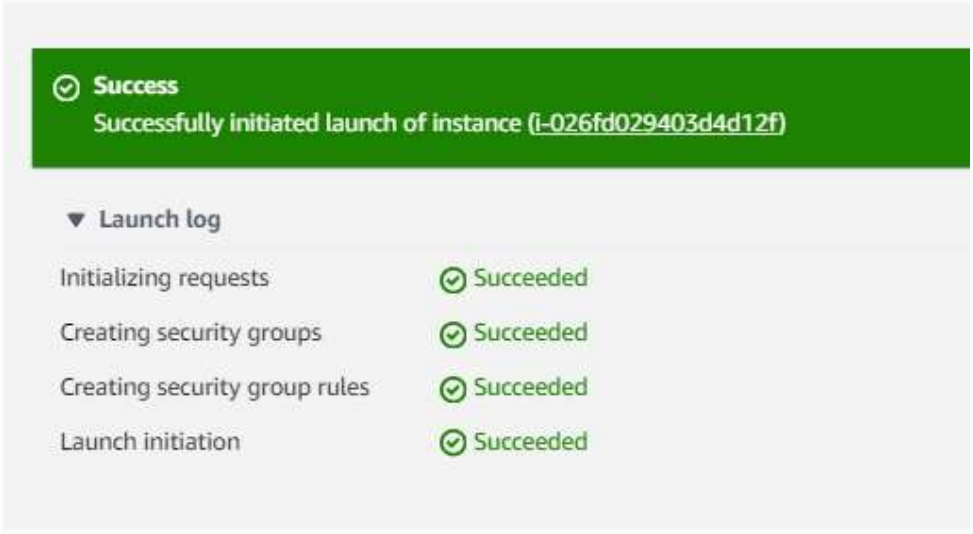


7. The further step is about the storage configuration. We can select it according to our needs.



8. Once everything is done, click on launch instance.

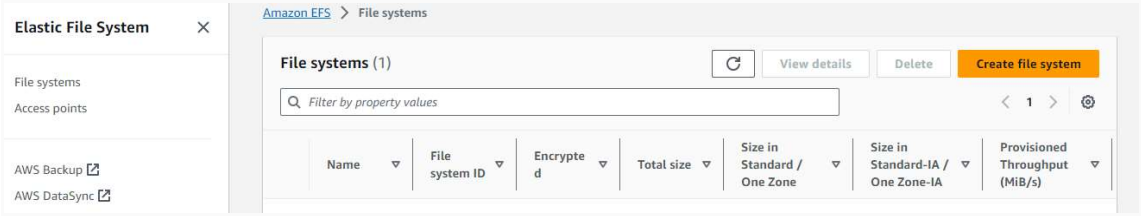


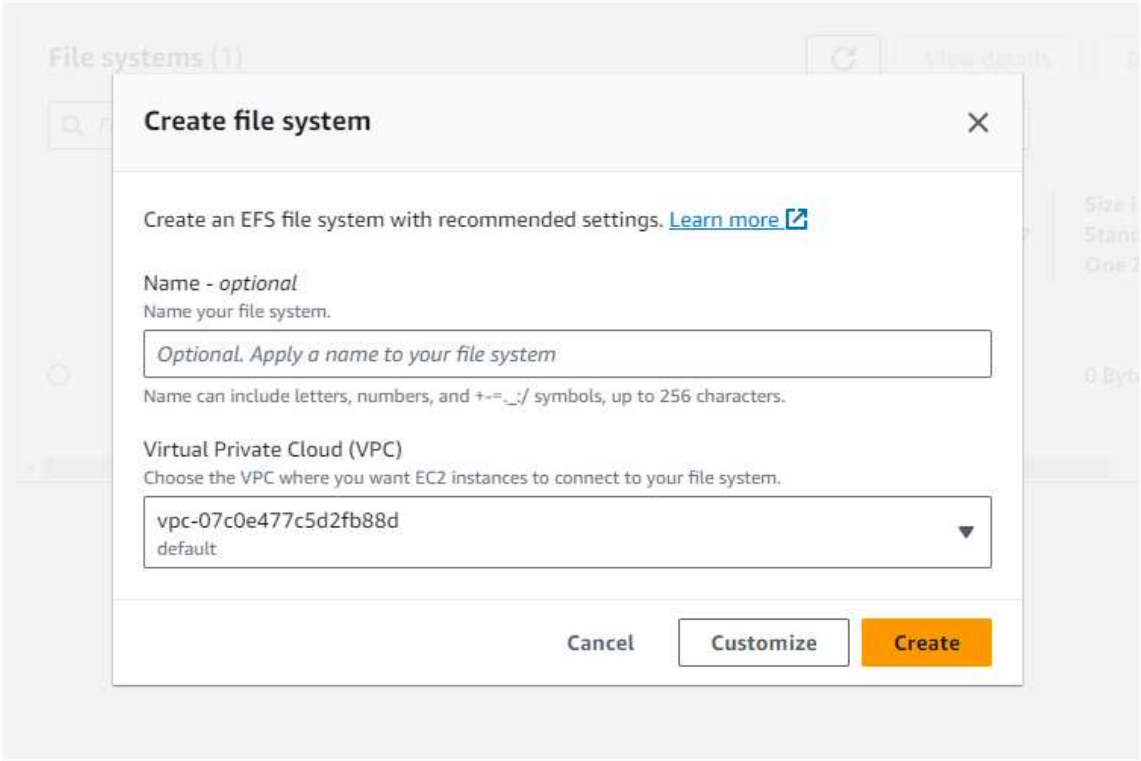


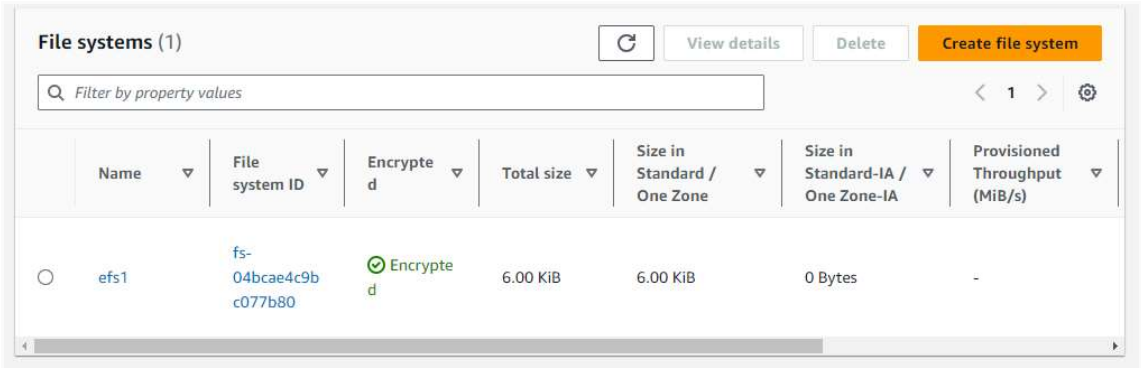
In the same way we need to create two other instances.

Next we have to create the file system

Navigate to EFS then tap on create file system.

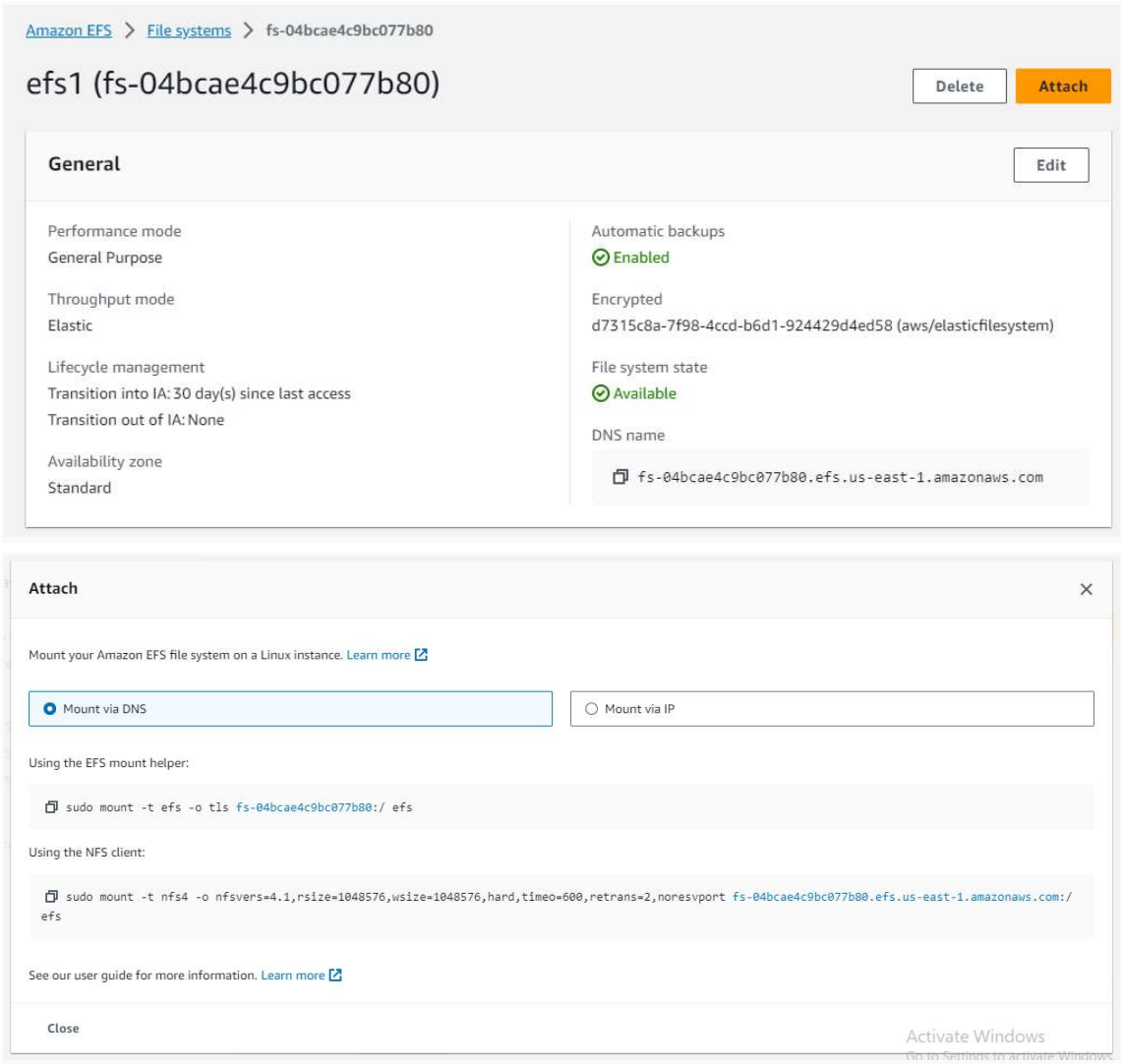




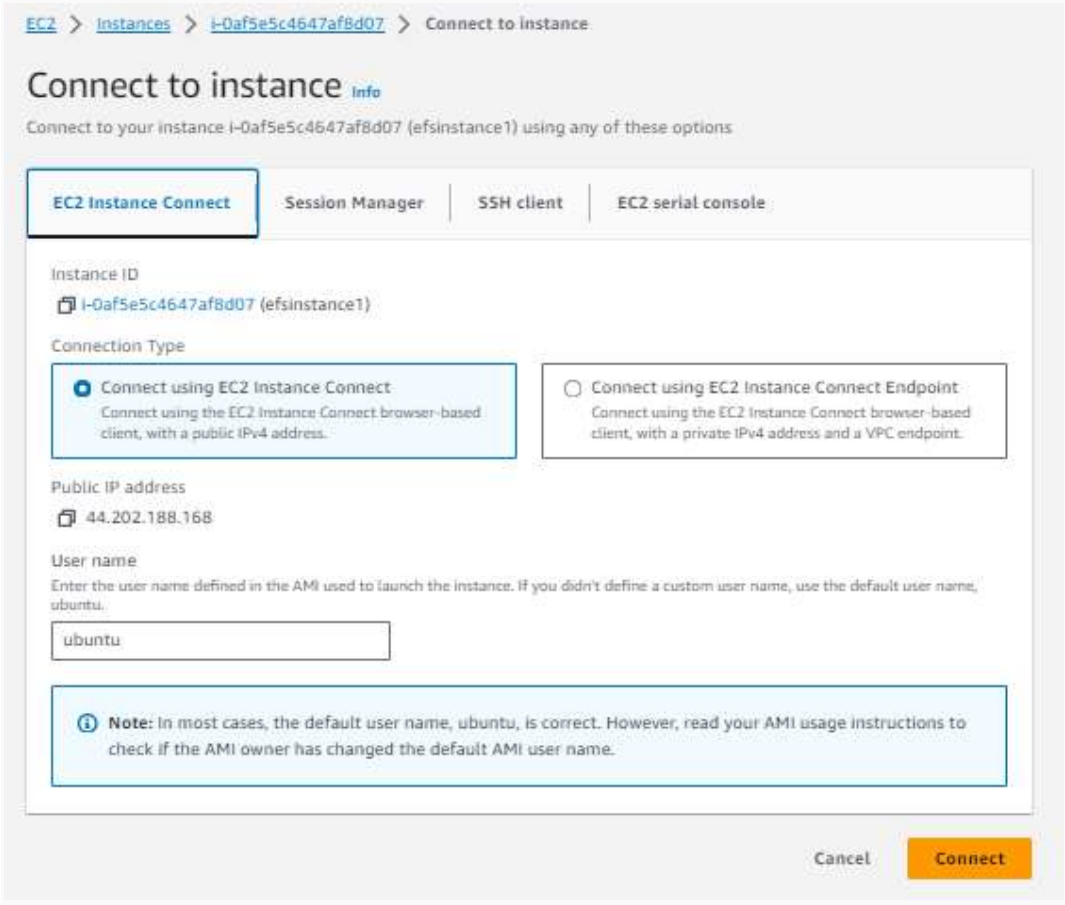


Select the efs and tap on view details

Then tap on the attach



Next we have to navigate to instance and select it and connect



Mounting EC2 on EFS :(Amazon Linux)

sudo su

sudo yum update

```
[ec2-user@ip-172-31-36-27 ~]$ sudo su
[root@ip-172-31-36-27 ec2-user]# sudo yum update
```

mkdir efs-test

sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-04bcae4c9bc077b80.efs.us-east-1.amazonaws.com:/ efs-test

df -h

```
[root@ip-172-31-36-27 ~]# df -h
Filesystem                                      Size  Used Avail Use% Mounted on
devtmpfs                                        4.0M     0  4.0M   0% /dev
tmpfs                                           224M     0  224M   0% /dev/shm
tmpfs                                            90M  1.6M   88M   2% /run
/dev/xvda1                                      8.0G  1.5G  6.5G  19% /
tmpfs                                           224M     0  224M   0% /tmp
/dev/xvda128                                     10M  1.3M  8.7M  13% /boot/efi
tmpfs                                            45M     0   45M   0% /run/user/1000
fs-04bcae4c9bc077b80.efs.us-east-1.amazonaws.com:/  8.0E     0  8.0E   0% /home/ec2-user/efs-test
```

Mounting EC2 on EFS:(Ubuntu)

sudo su

sudo apt-get update

sudo mkdir efs2

sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-04bcae4c9bc077b80.efs.us-east-1.amazonaws.com:/ efs2

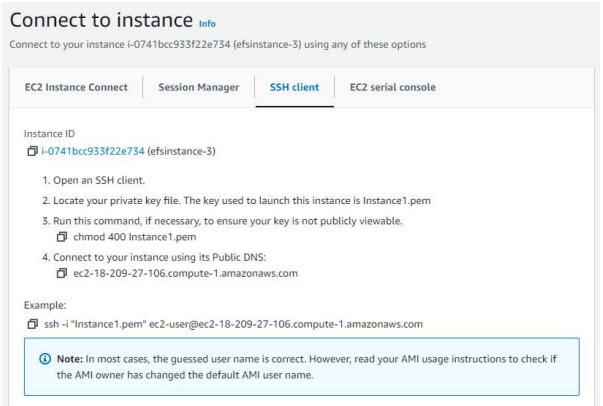
df -h

```
root@ip-172-31-40-45:/home/ubuntu# df -h
Filesystem                                      Size  Used Avail Use% Mounted on
/dev/root                                       7.6G  1.8G  5.9G  24% /
tmpfs                                           475M     0  475M   0% /dev/shm
tmpfs                                           190M  860K  190M   1% /run
tmpfs                                           5.0M     0  5.0M   0% /run/lock
/dev/xvda15                                     105M  6.1M   99M   6% /boot/efi
tmpfs                                            95M  4.0K   95M   1% /run/user/1000
fs-04bcae4c9bc077b80.efs.us-east-1.amazonaws.com:/  8.0E     0  8.0E   0% /home/ubuntu/efs2
```

Mounting EC2 on EFS:(Red Hat Linux)

Select the instance and tap on connect

Redirect to SSH



Open local system's command prompt and run the following commands

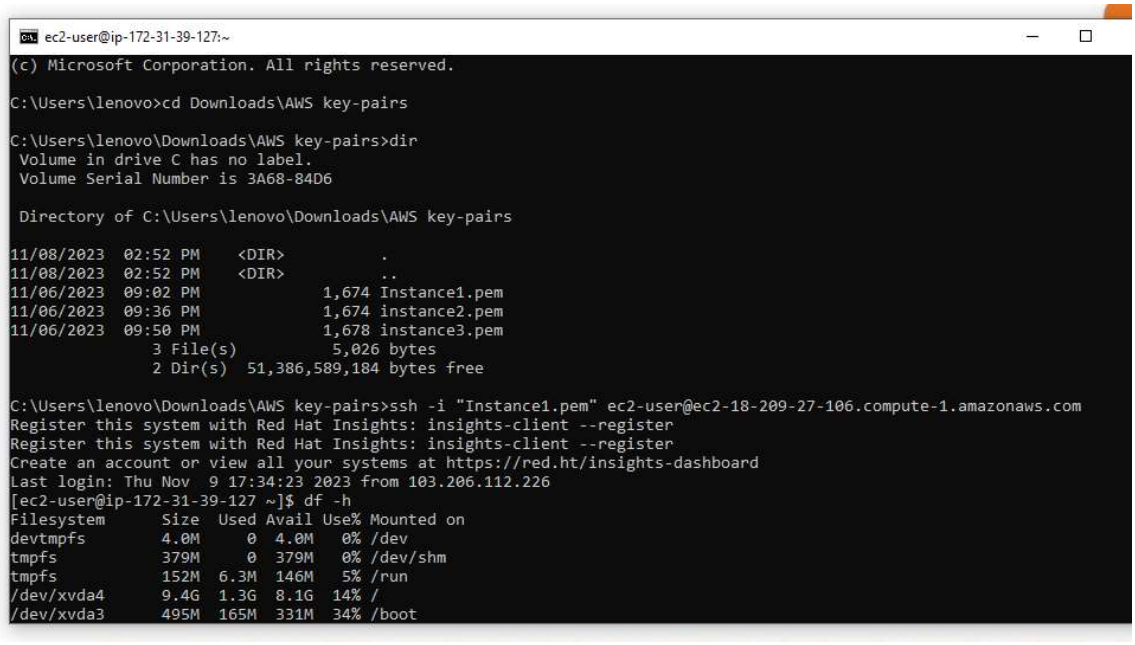
cd downloads

Cat /etc/os-release

Yum install nfs-utils -y

Mkdir efs

ssh -i "Instance1.pem" ec2-user@ec2-18-209-27-106.compute-1.amazonaws.com



Now ec2 instance has been mounted to the efs.

We can now share the files and it gets reflected on the shared files.

CONCLUSION:

Launched 3 ec2 instances and mounted it to the created elastic file system.