Andhra Pradesh State Skill Development Corporation

Skill AP
APSSDC

AWS CLOUD COMPUTING

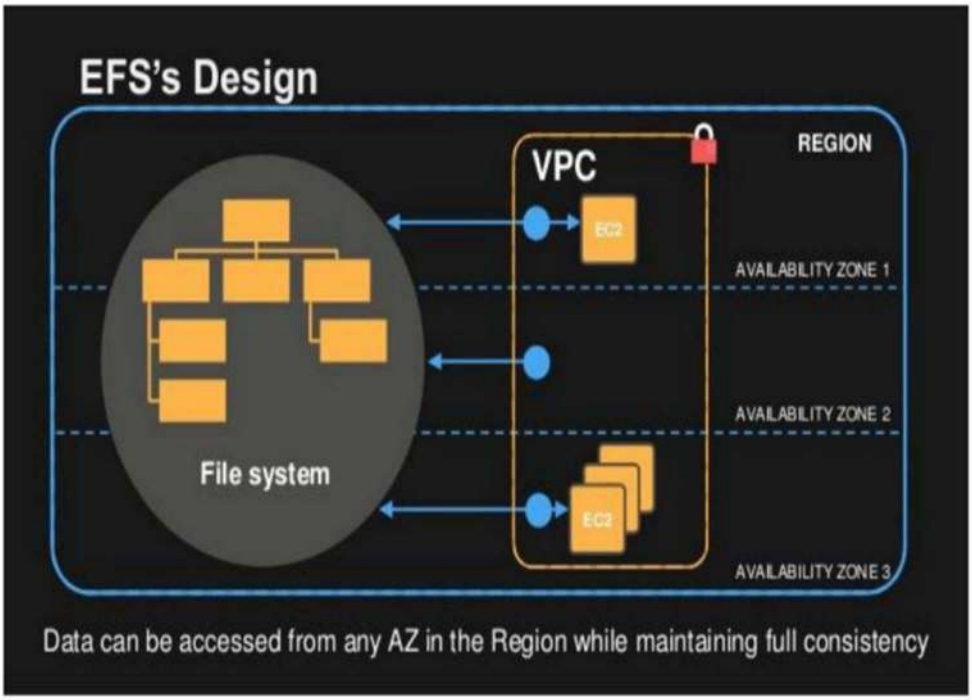
CONFIGURATION OF AMAZON ELASTIC FILE SYSTEM (EFS)

Configuration of Amazon Elastic File System (EFS)

Configuration of Amazon EFS

Amazon Elastic File System (Amazon EFS) provides a simple, scalable, fully managed elastic NFS file system for use with AWS Cloud services and on-premises resources. It is built to scale on demand to petabytes without disrupting applications, growing and shrinking automatically as you add and remove files, eliminating the need to provision and manage capacity to accommodate growth.

Amazon EFS offers two storage classes. The Standard storage class, and the Infrequent Access storage class (EFS IA). EFS IA provides price/performance that's cost-optimized for files not accessed every day. By simply enabling EFS Lifecycle Management on your file system, files not accessed according to the lifecycle policy you choose will be automatically and transparently moved into EFS IA. The EFS IA storage class costs only $0.025/GB-month.



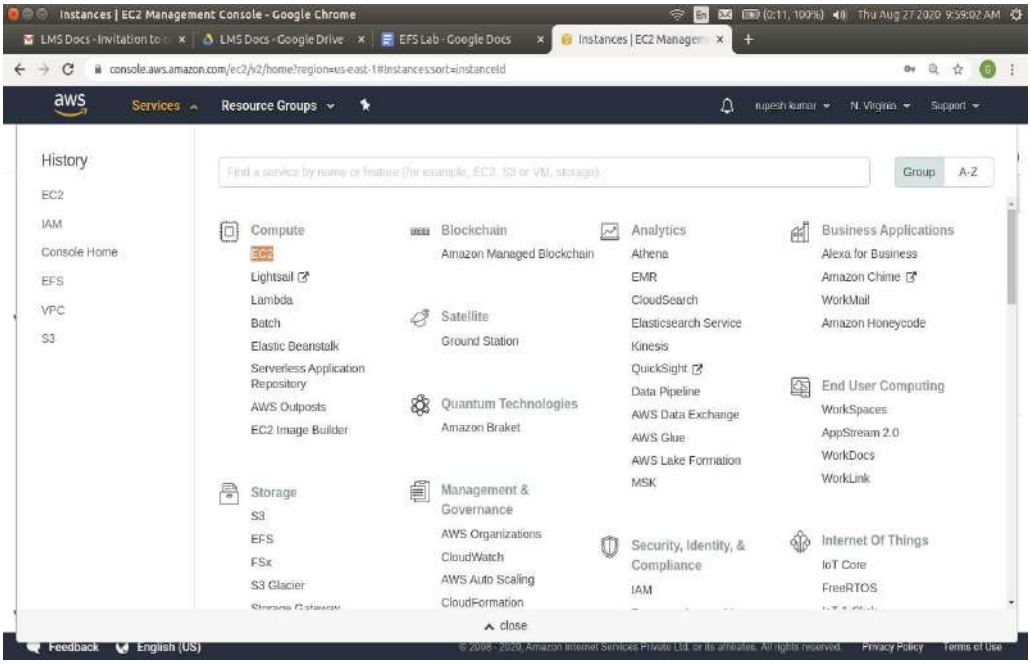
To configure EFS with the following task.

- Create a security group for EFS access
- Create Your Amazon EFS File System
- Launch Your EC2 Instance
- Create Your Amazon EFS File System
- Mount the Amazon EFS File System in your Linux launch instance

Create a security group for EFS access

Open AWS Console and go for EC2 Service

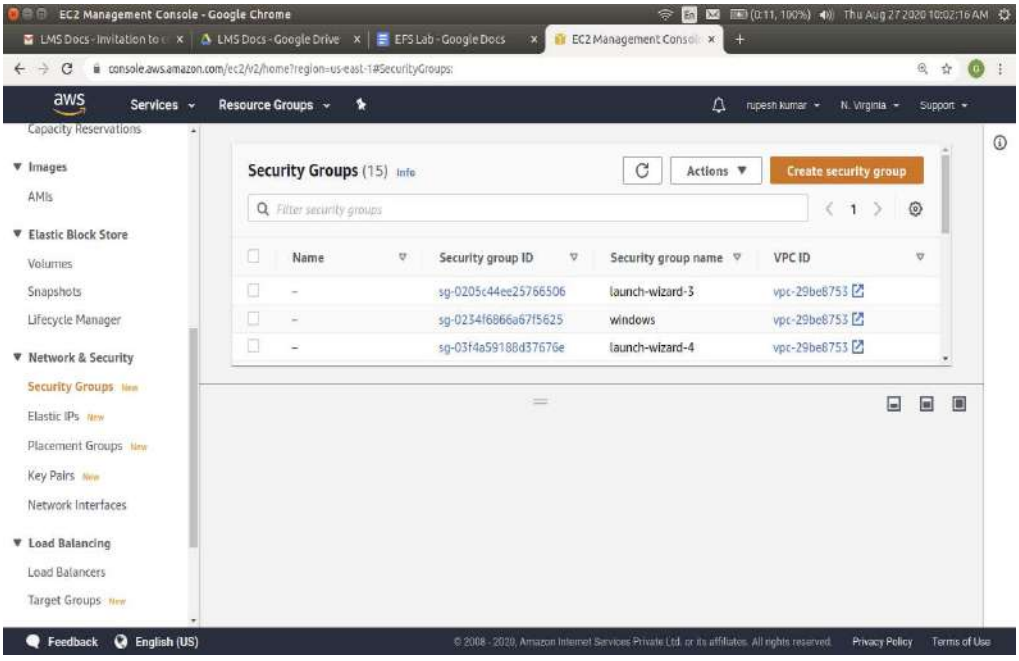
Click on EC2



Under EC2 Dashboard go for Network & Security

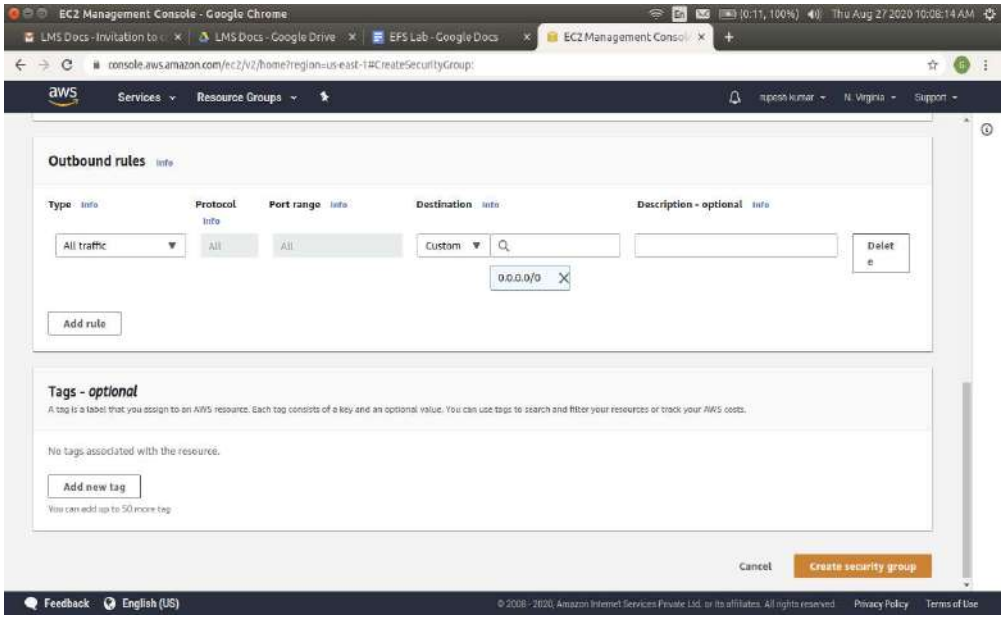
Select Security Groups

Click on Create Security Group

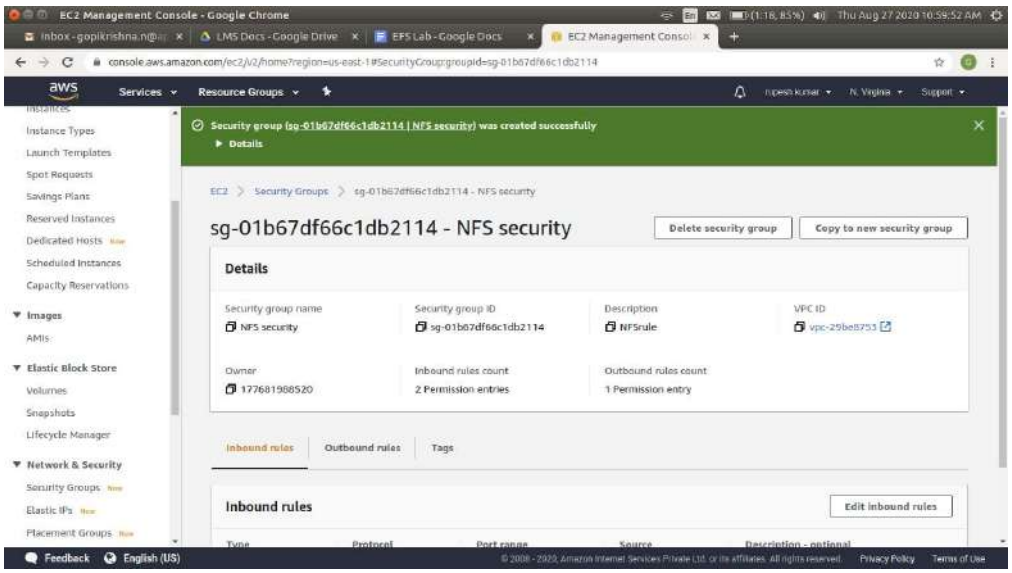


Under “Create Security Group” wizard
Give Following values

Security group name → **NFS security**
Description → **NFSrule**
VPC → **take default**
Select Inbound
Type → **All traffic**
Source → **Anywhere**
Click on Create button

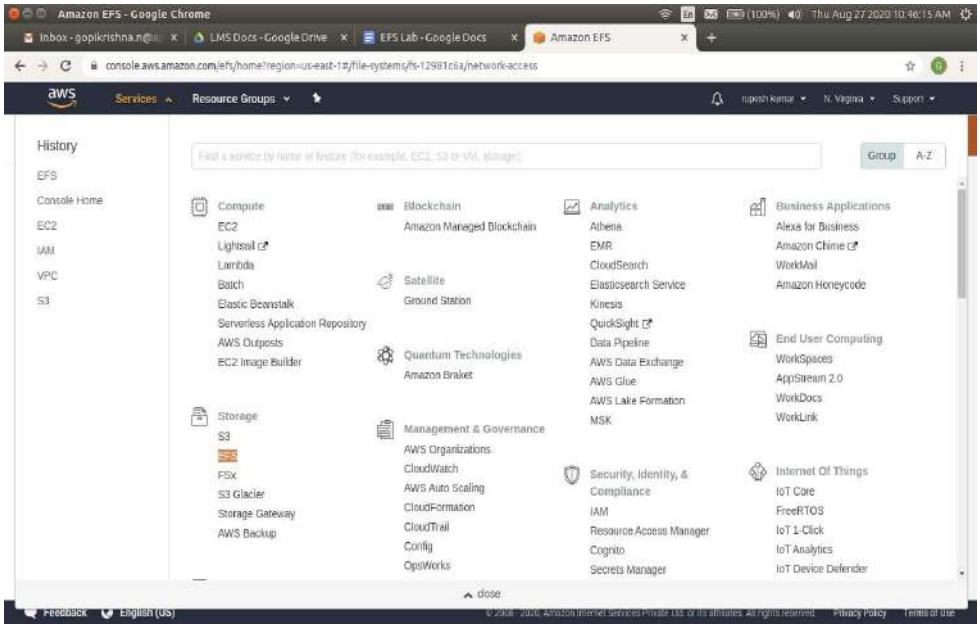


Check the status of NFS security

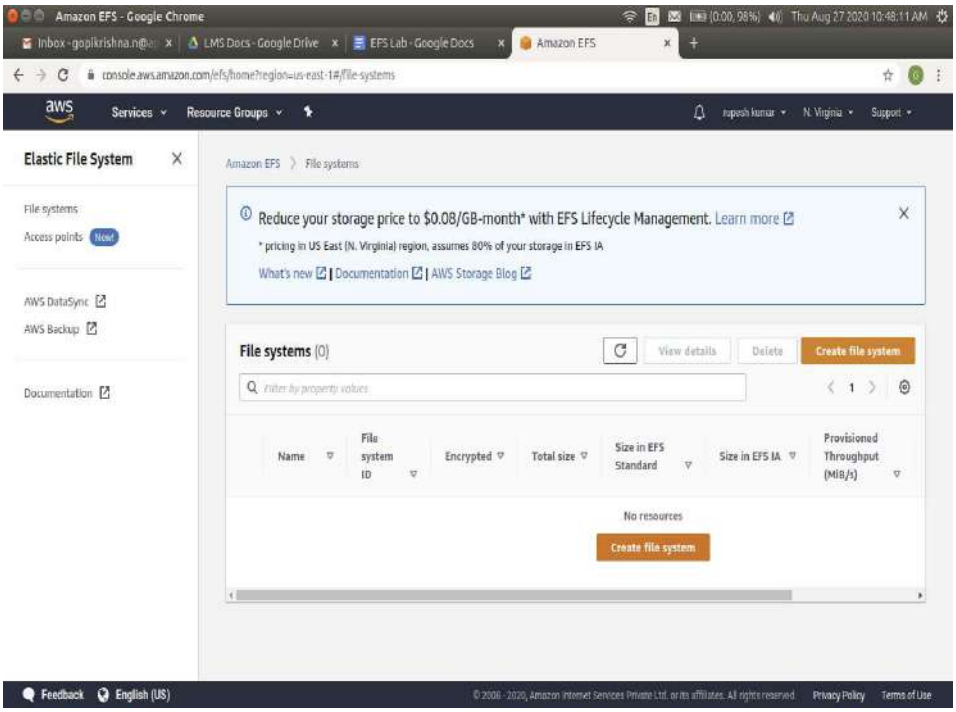


Create your Amazon EFS File System

Go to services and click on EFS

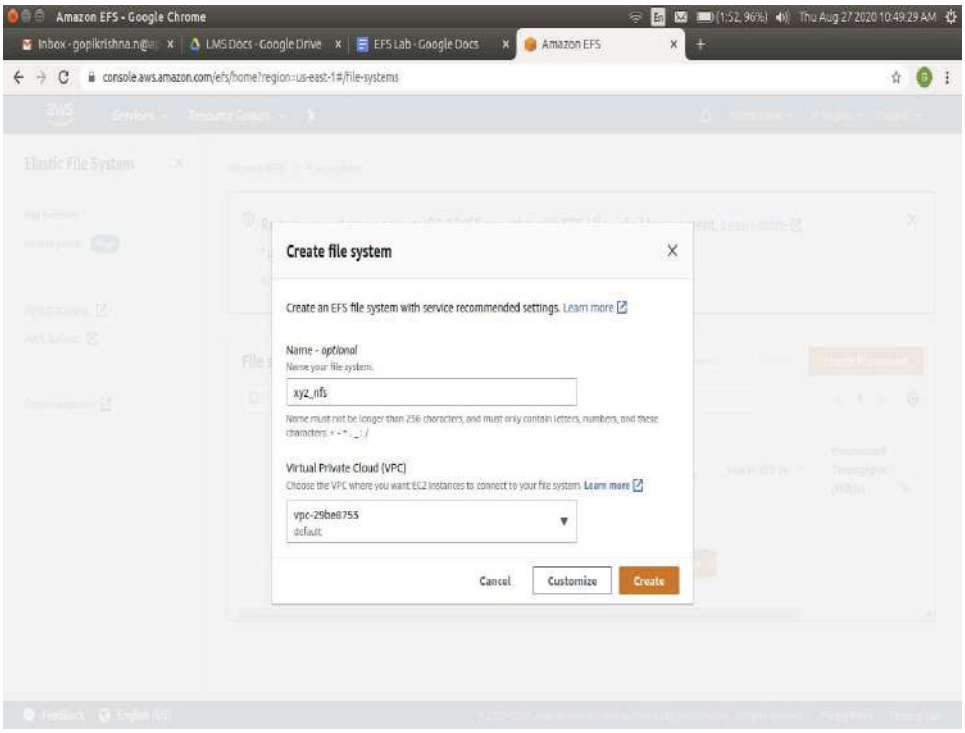


Click on "**Create file system**" button

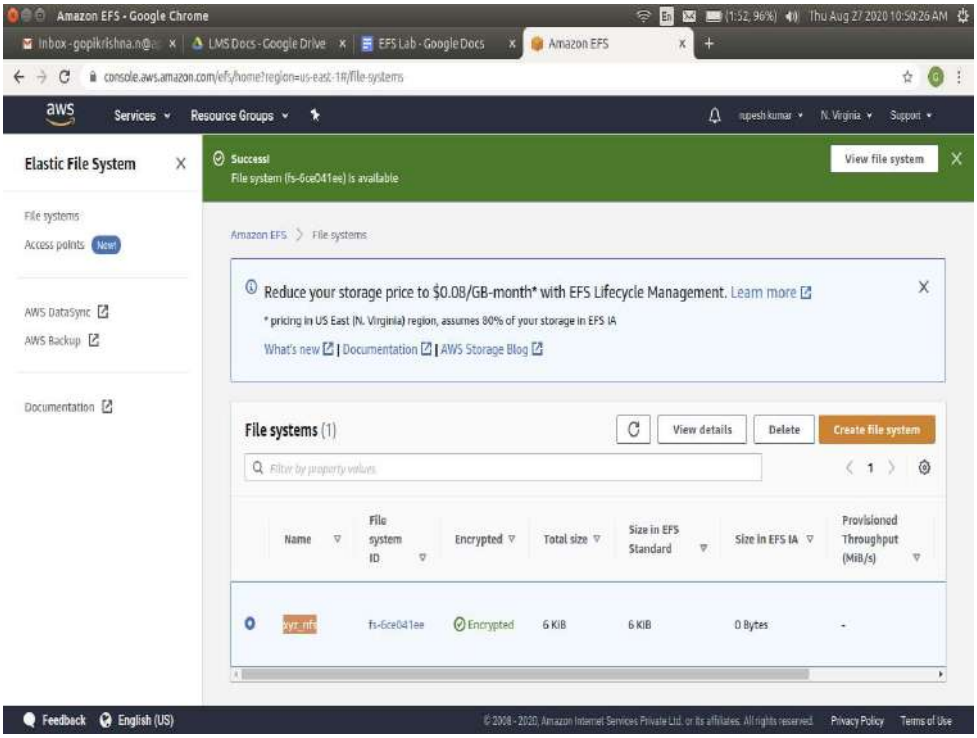


Name of the file system → xyz_nfs (name of the file system is optional)

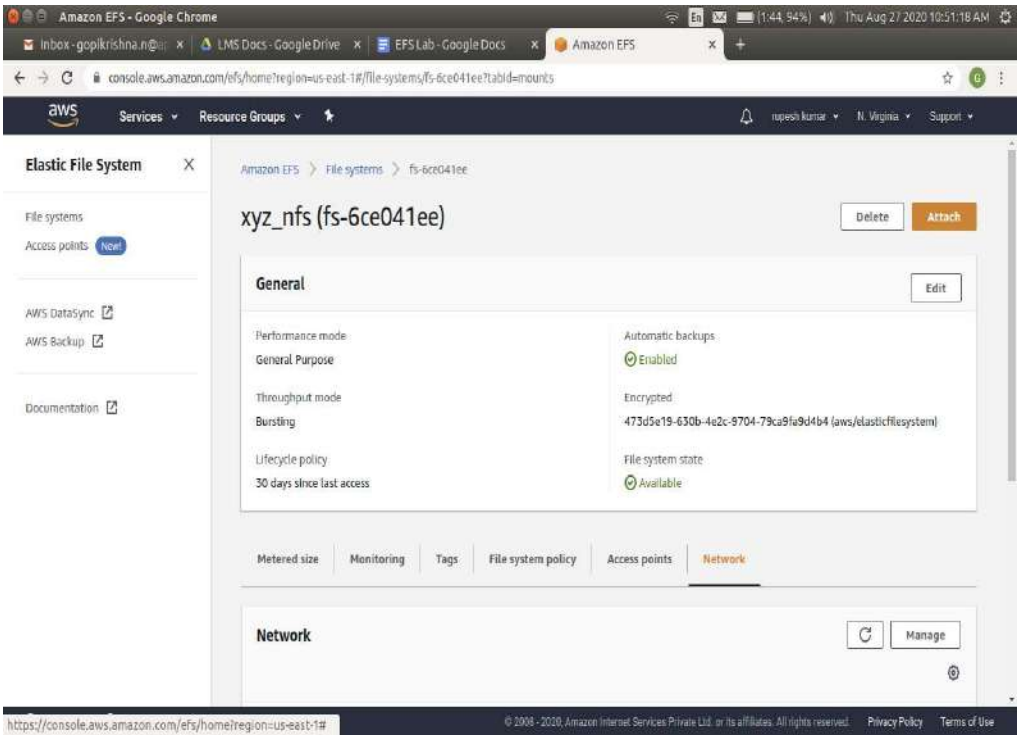
Select Default VPC and Click on create option



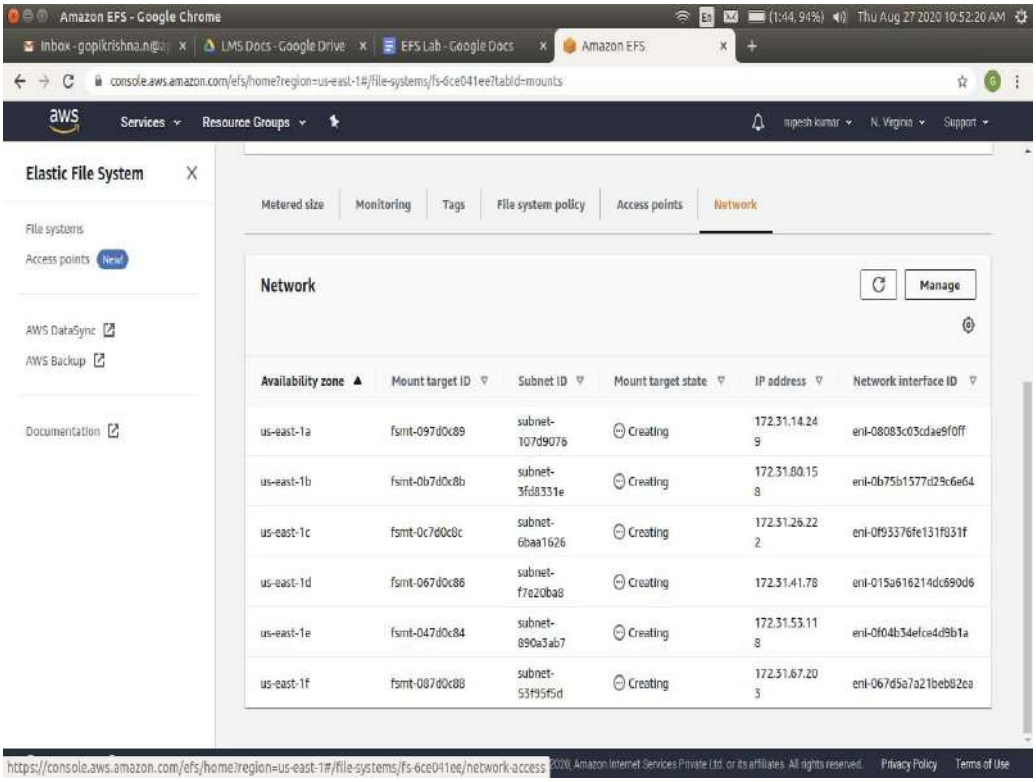
File system xyz_nfs was created successfully.
Select your file system name and click on your file system name (xyz_nfs)



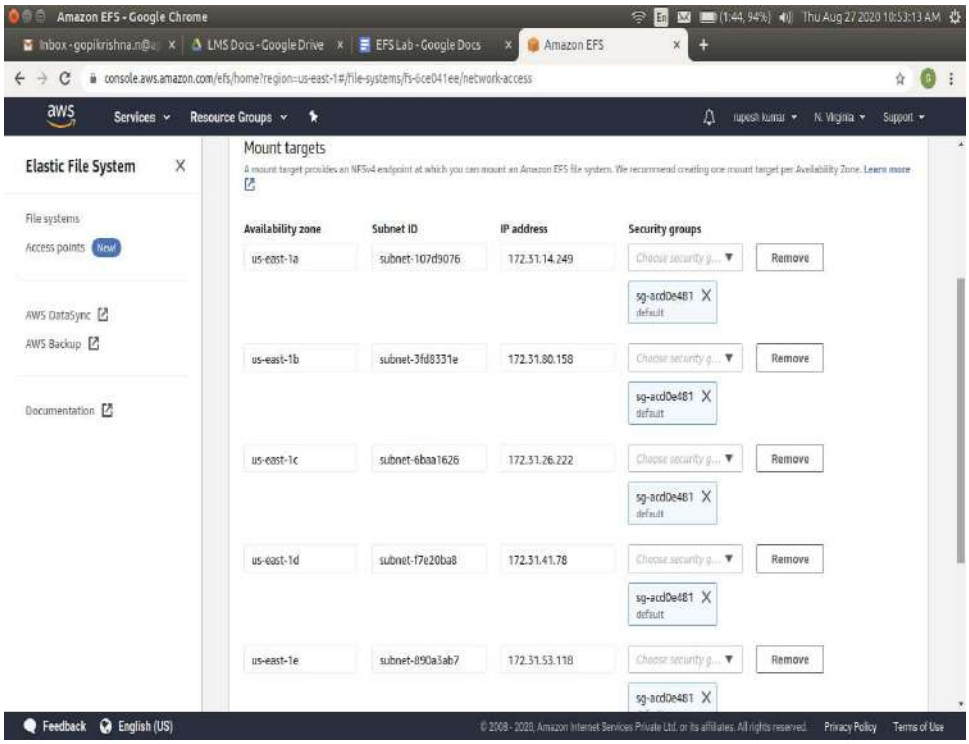
Click on Network option of your file system



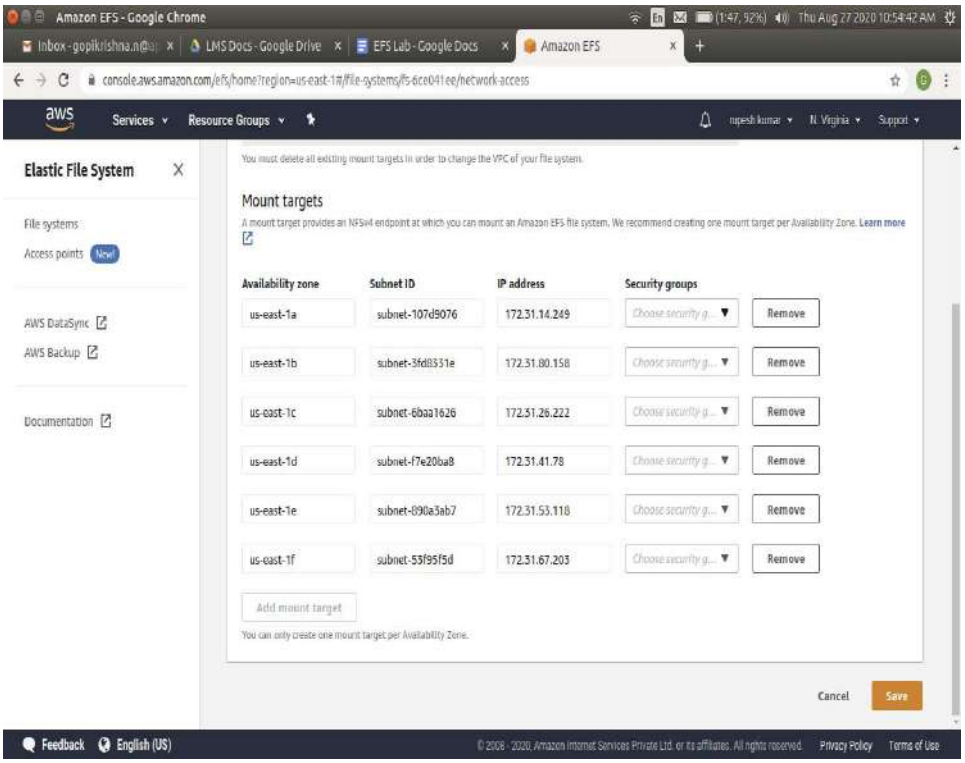
In Network, click on Manage



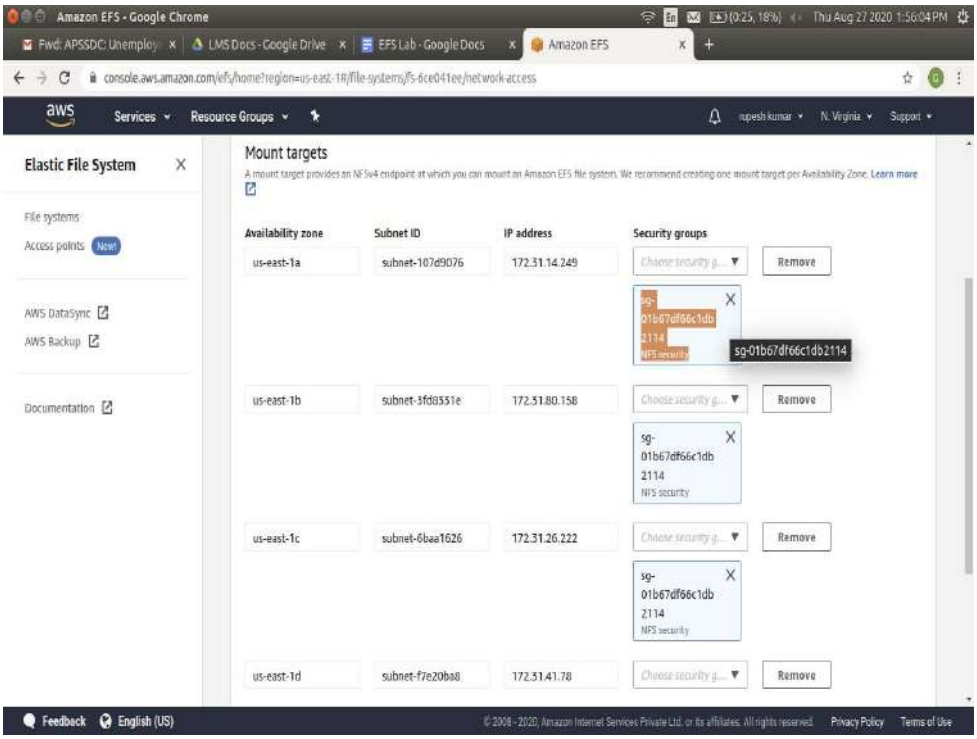
After click on Manage you will get Mount Targets of your file system



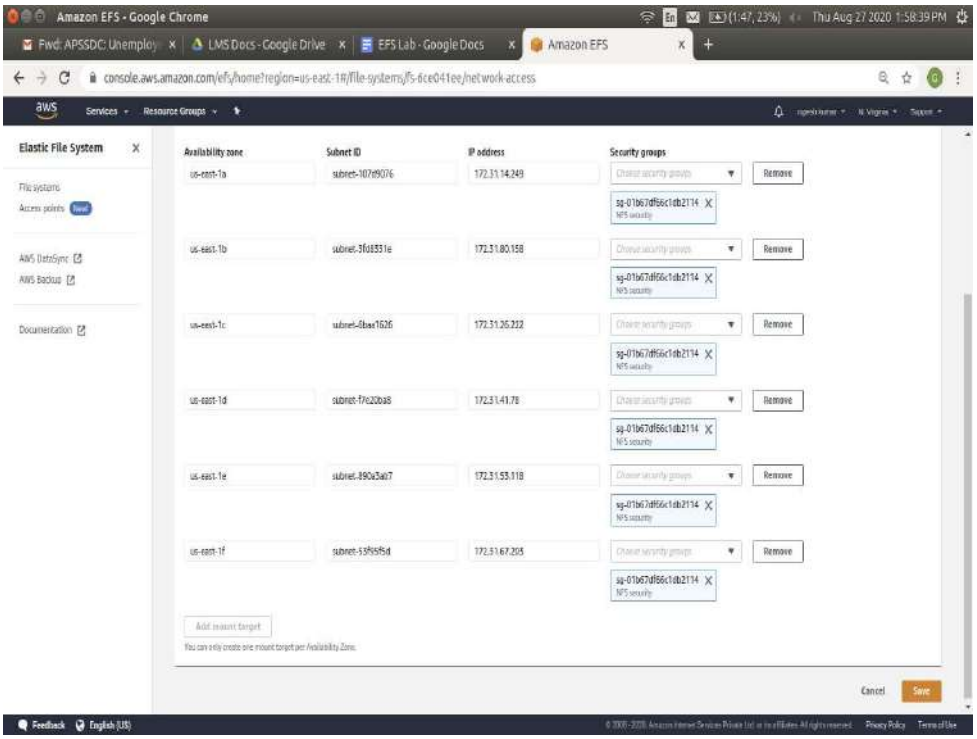
Remove all Security Groups and click on save



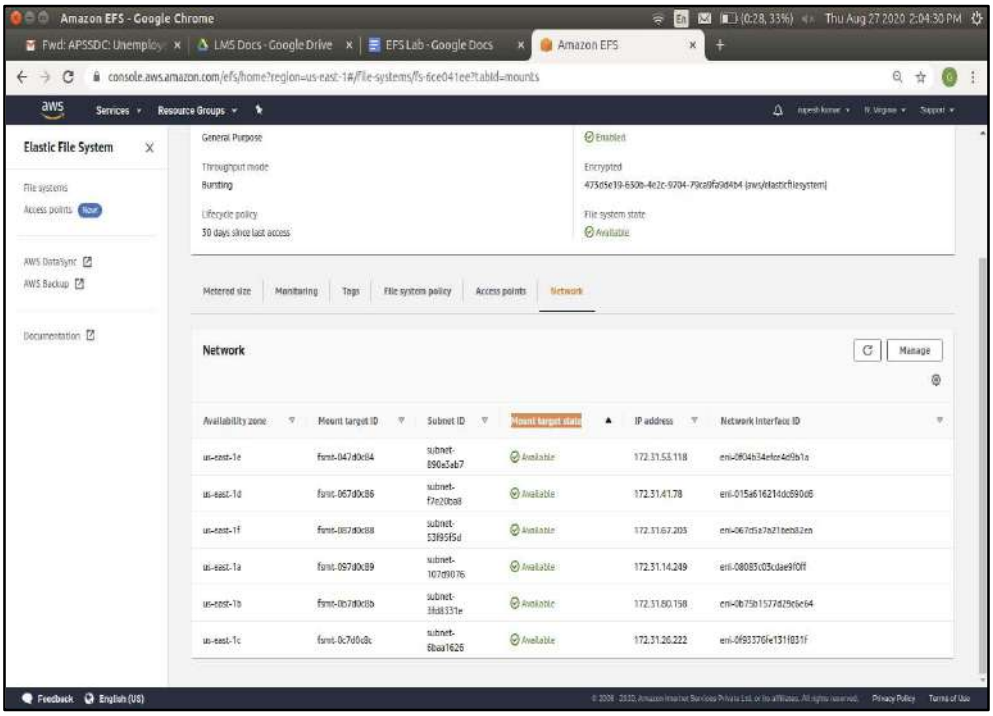
Now Add NFS Security group in all A-Z



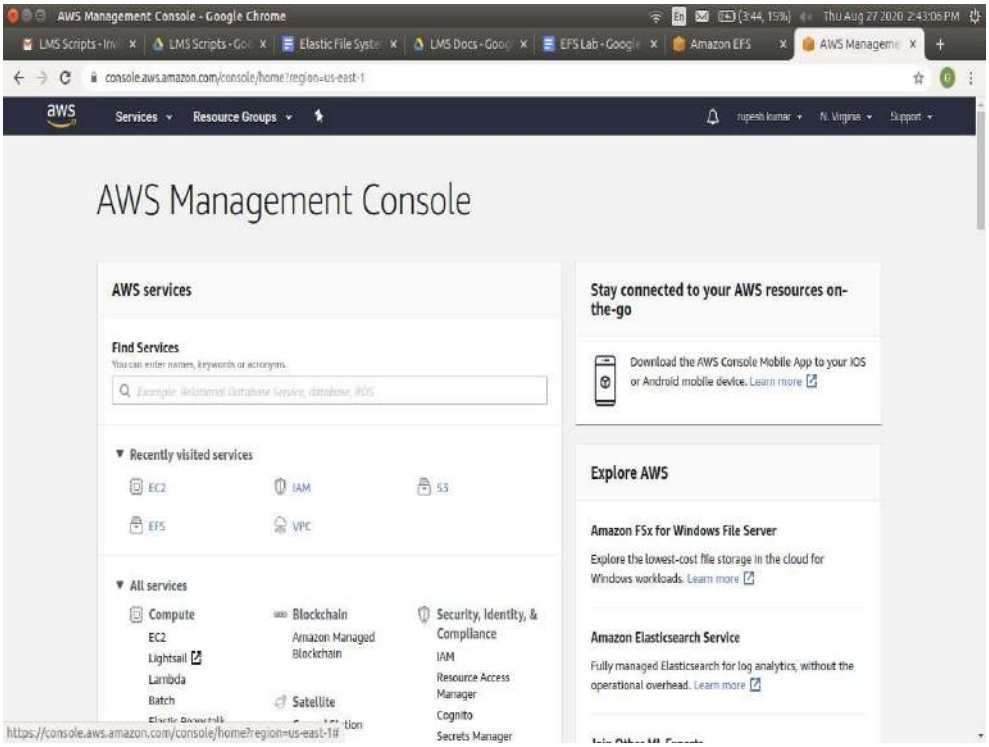
Verify that all Security Groups are added.
Click on save



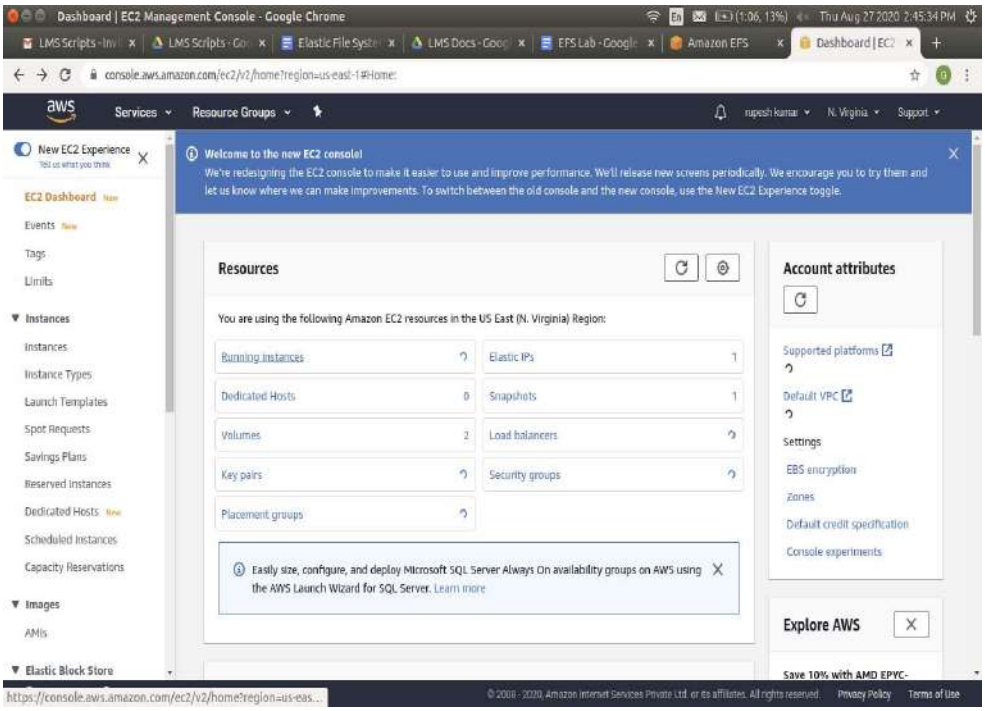
Select Network and check the status of mount targets. The state is available or not.



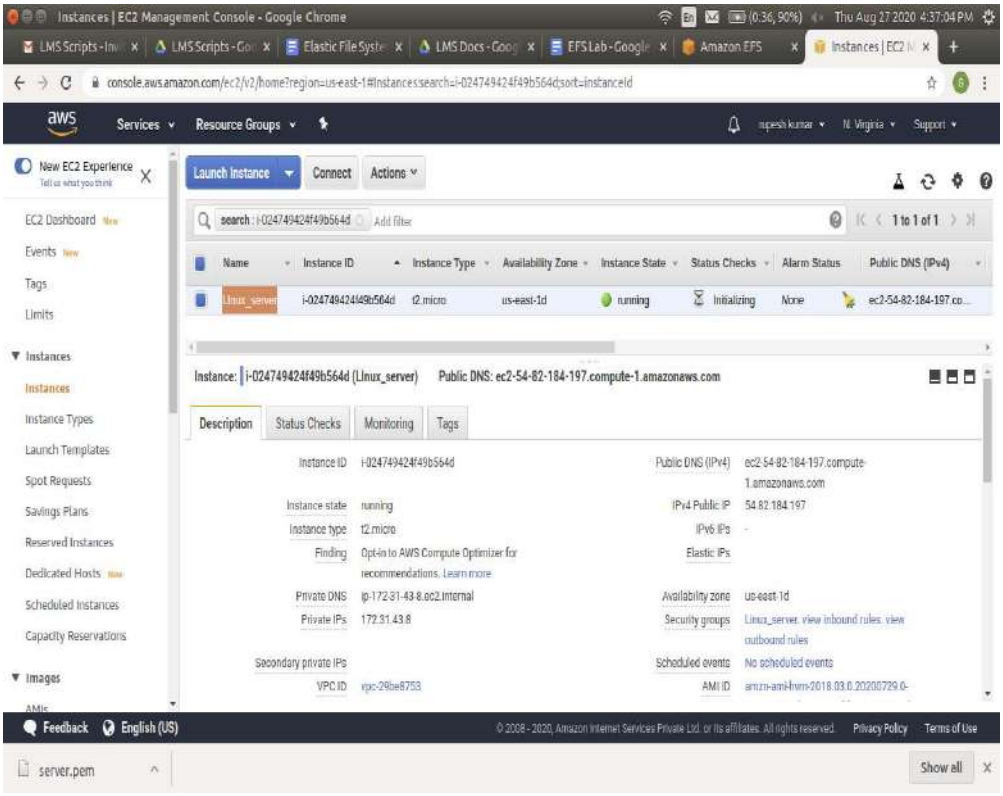
To mount EFS to an instance you need to connect to the instance
Click on services of AWS management console



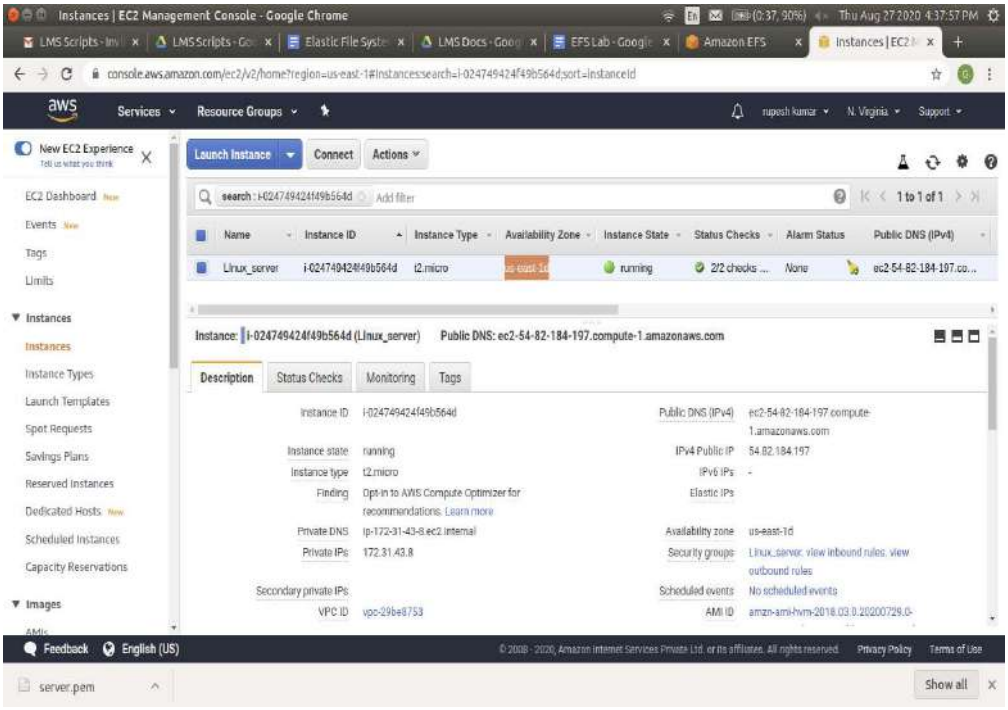
Click on EC2 service and click on Running instances



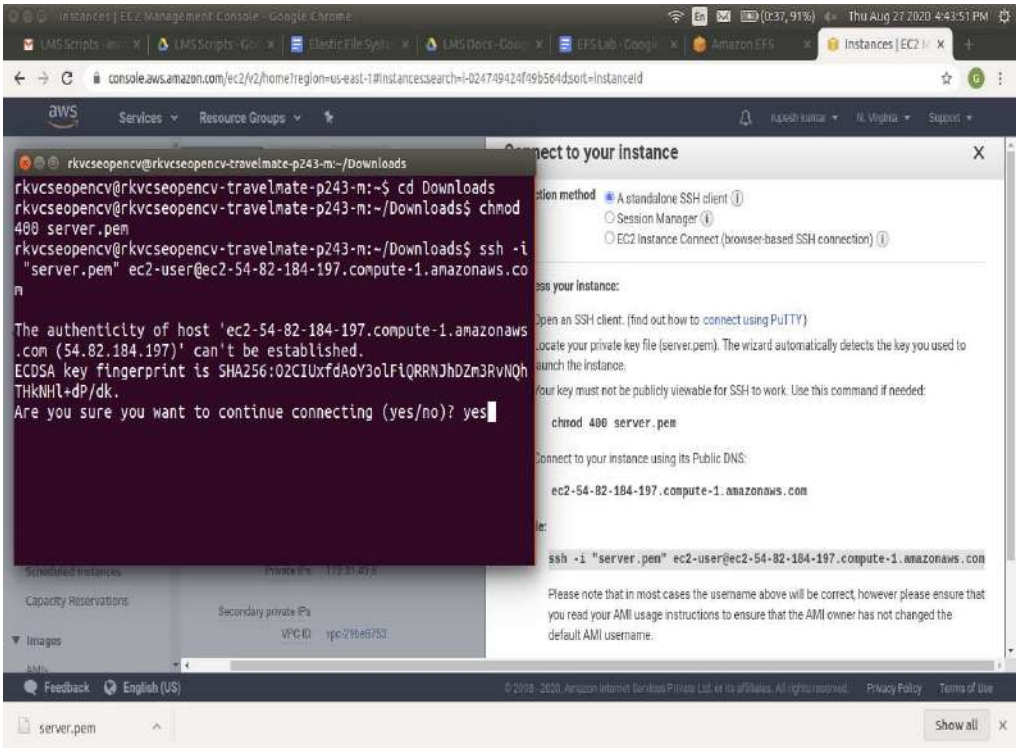
Click on running instances and select the instance you want to mount



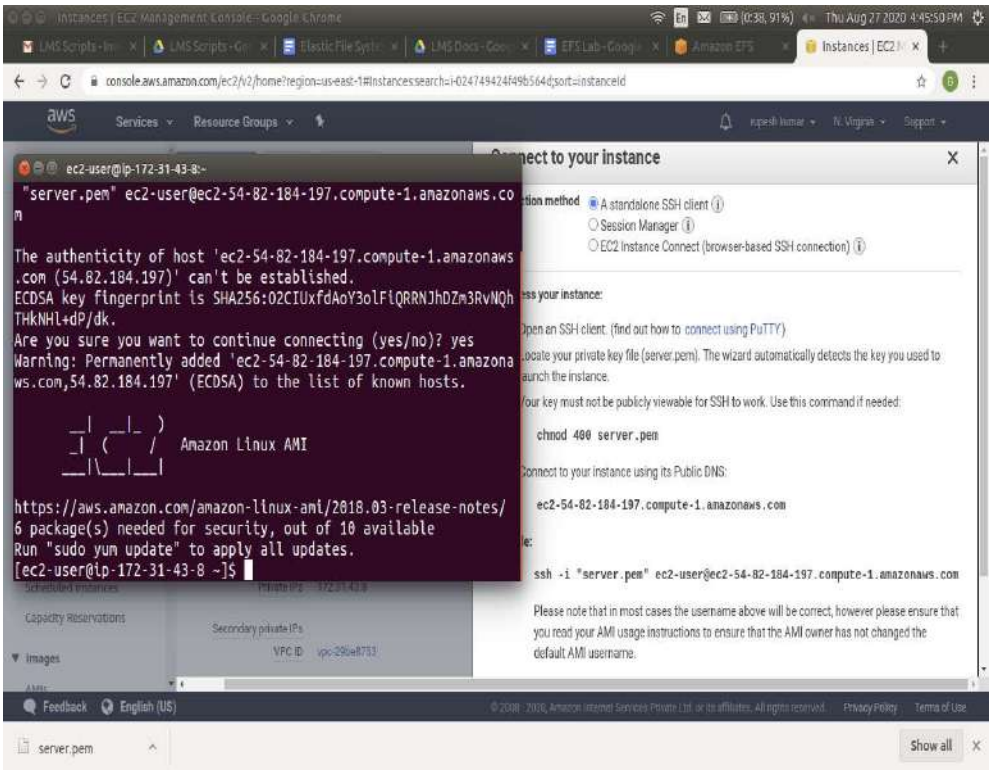
Make sure that, instance and EFS must be in same availability zone. Find out the availability zone of your Linux server



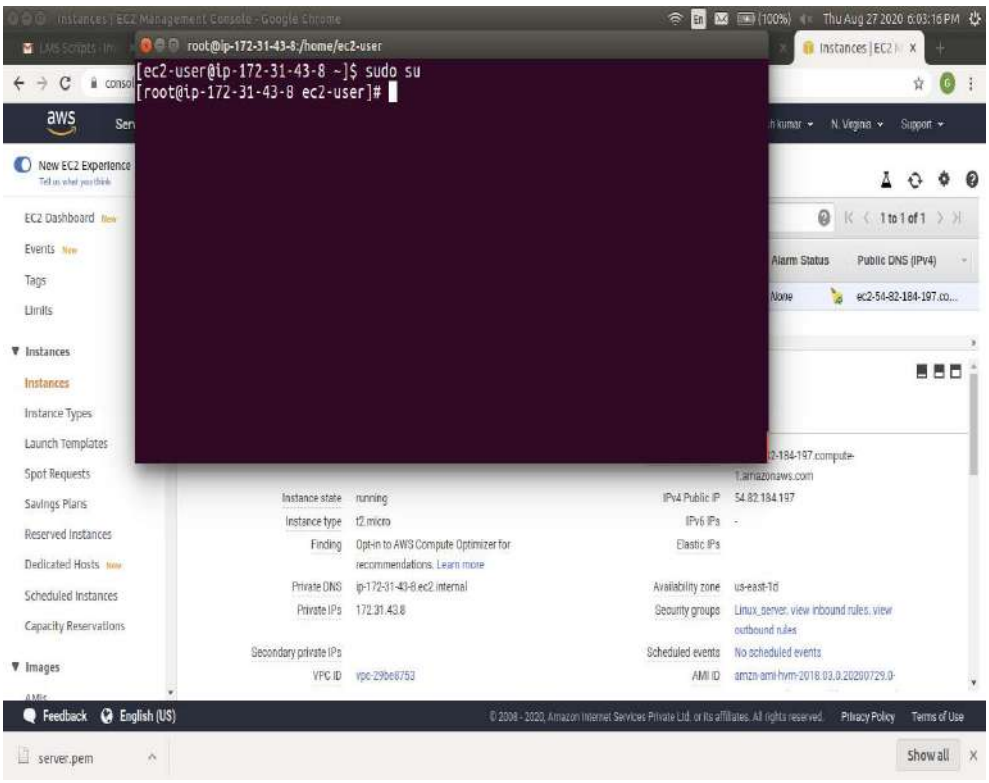
Now login to Linux_server by using terminal or putty or windows PowerShell. Now I am connecting through terminal



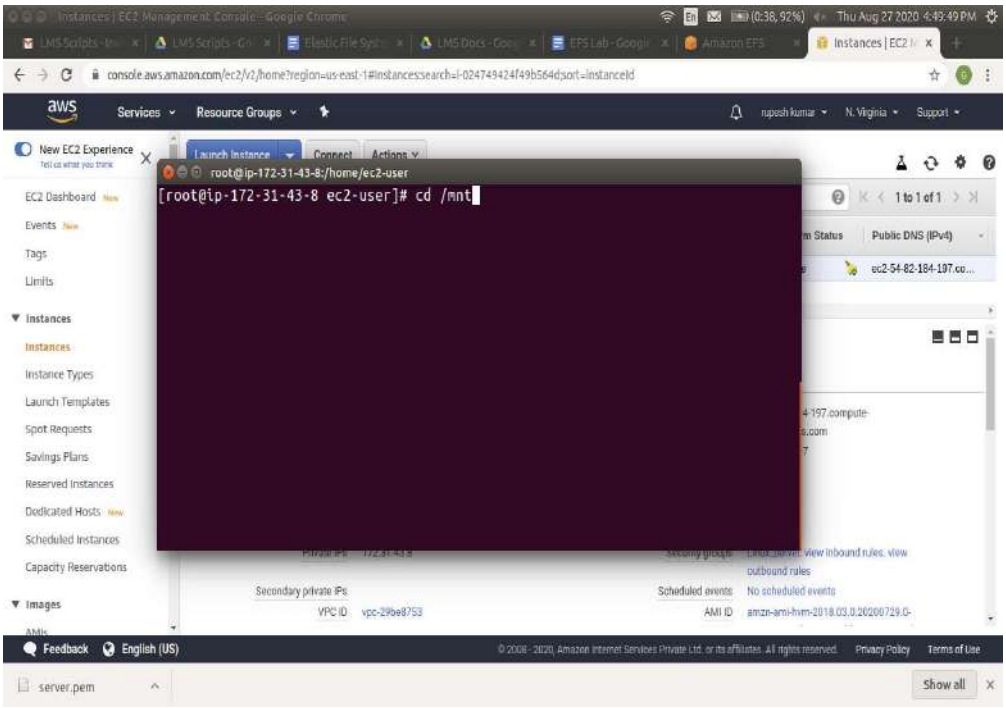
Check the connecting status



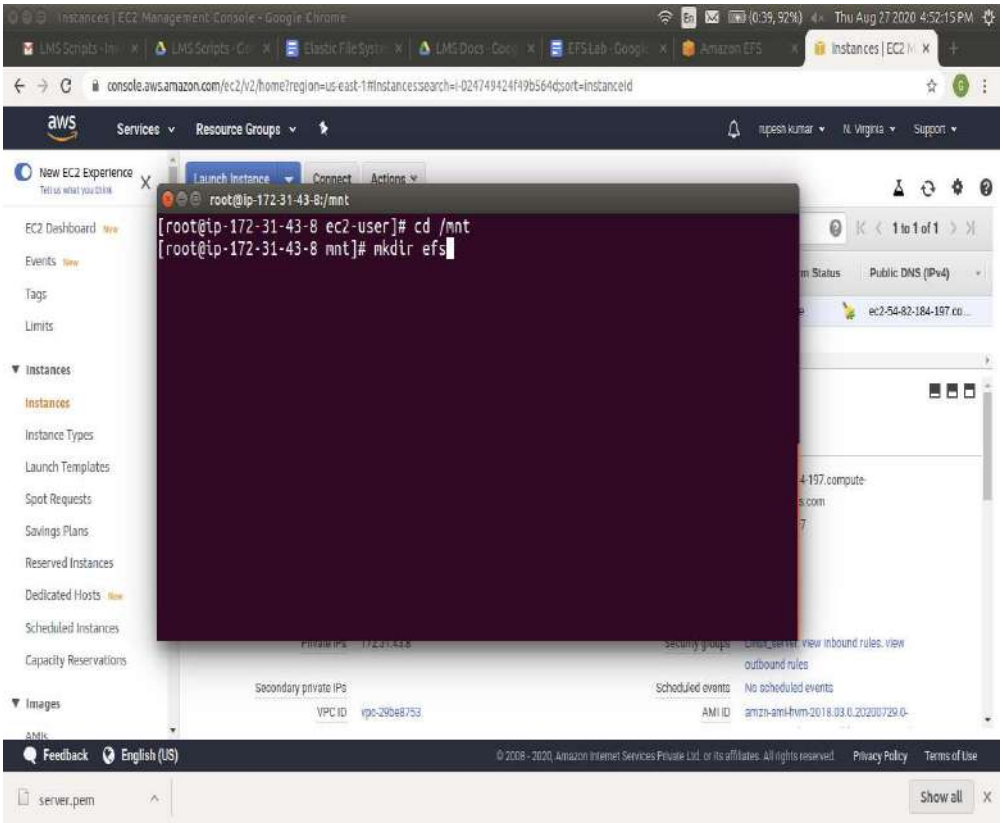
Now change the user from ec2-user to root



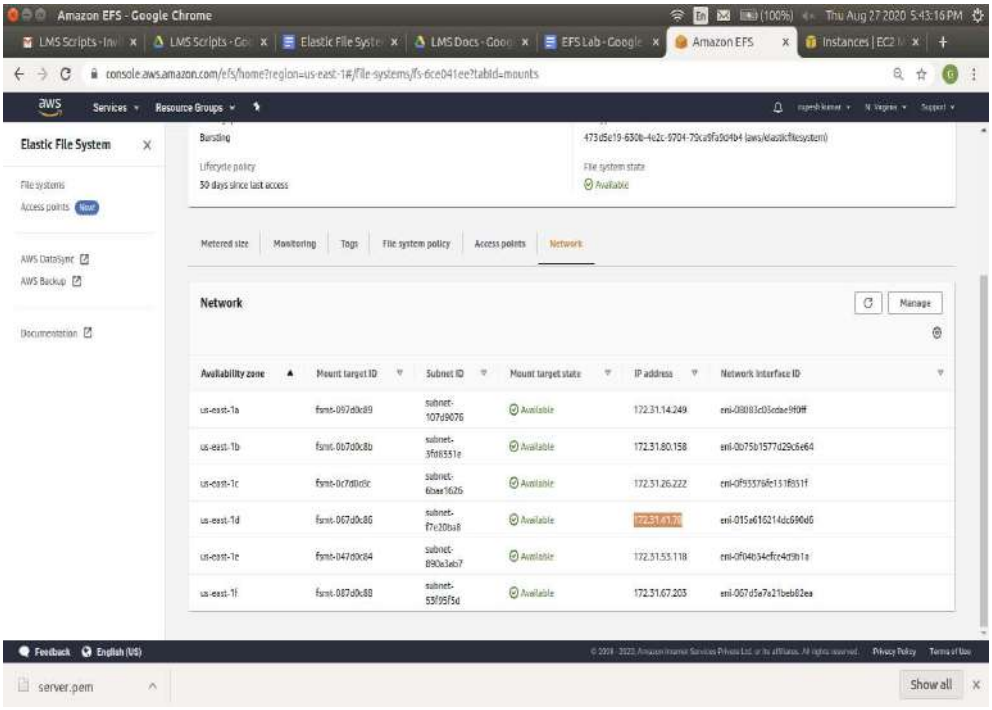
Now change the path to mount



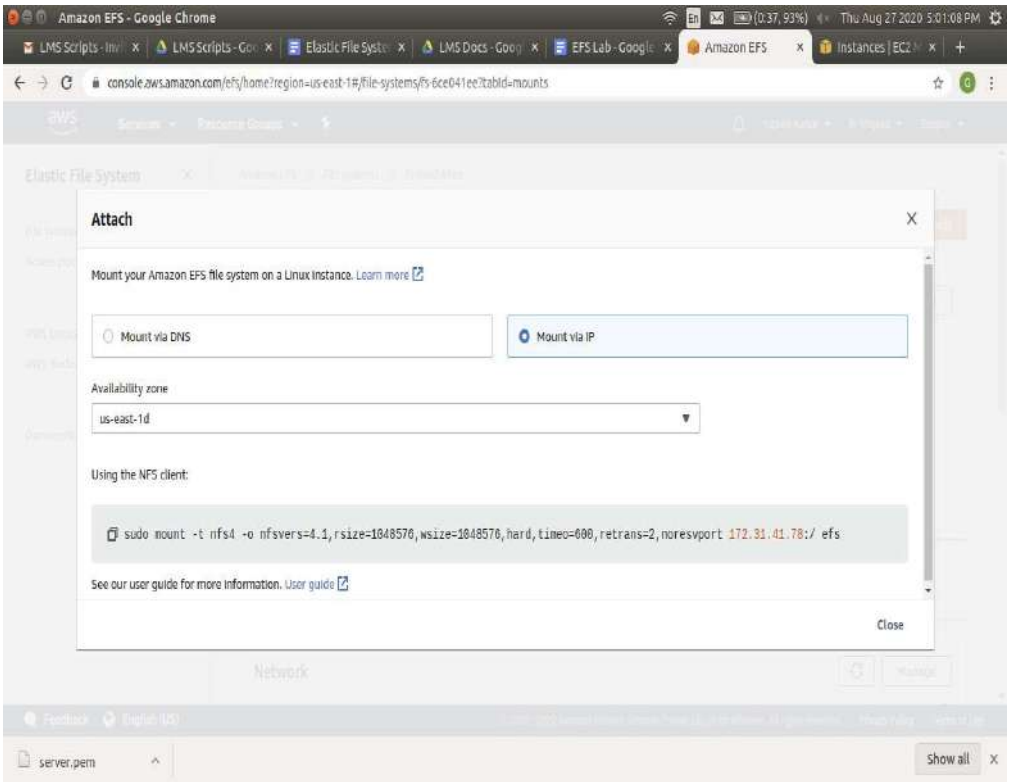
Under the mount path create a directory as “EFS”



Now please check that both your instance and EFS both are in the same availability zone. Copy the IP address of the EFS which you want to mount and execute the command .



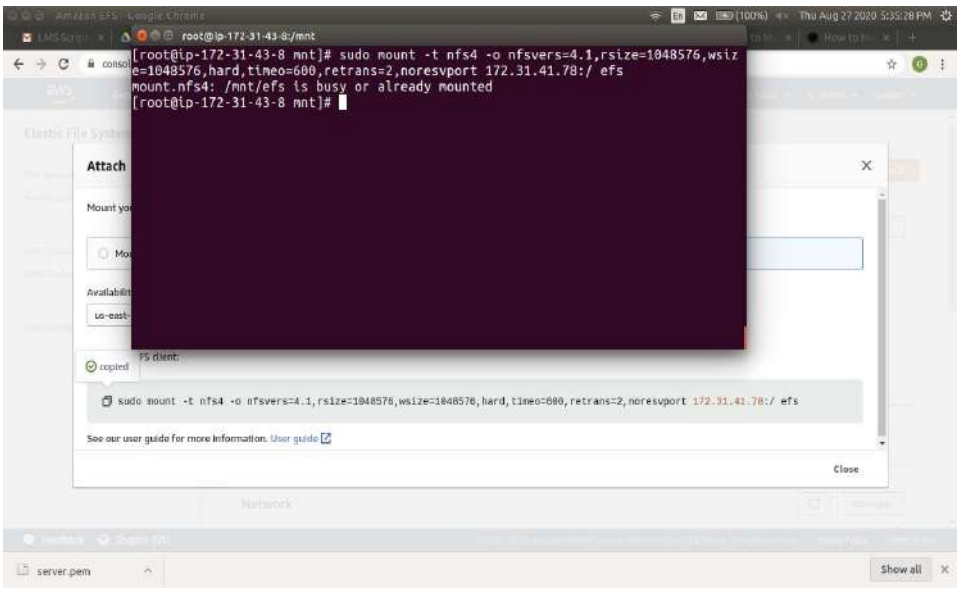
After that click on Attach. Then select Mount via IP



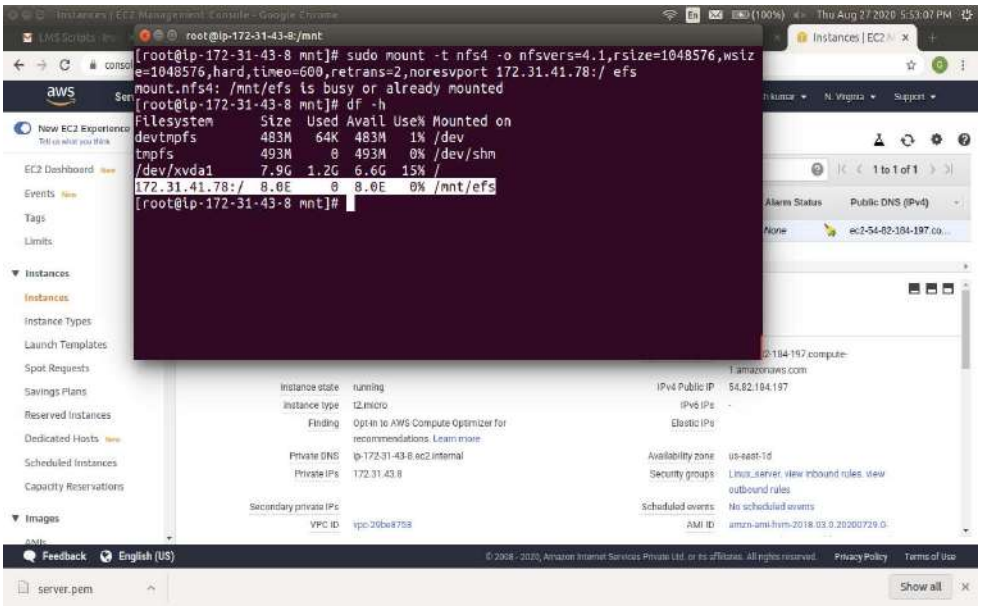
Now in the putty or terminal or windows power shell console type the command as (follow the command from the above slide)

$ sudo mount -t nfs4 -o

$ nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport 172.31.41.78;/ efs



Now check whether EFS was mount or not



Lab Setup was completed.