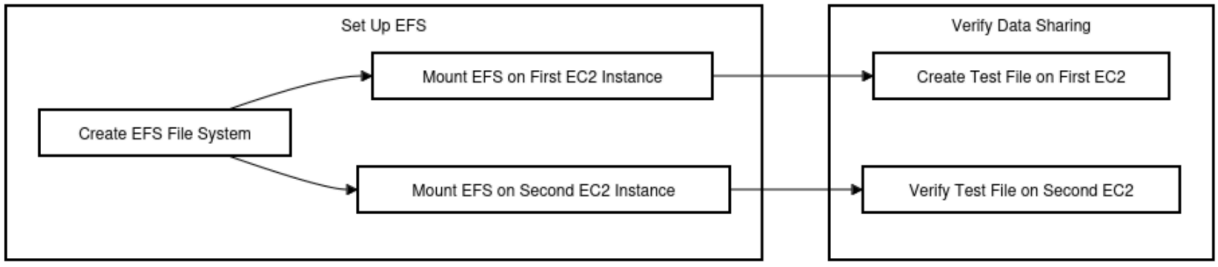
Task :Set Up EFS and Verify Data Sharing Between Two EC2 Instances.

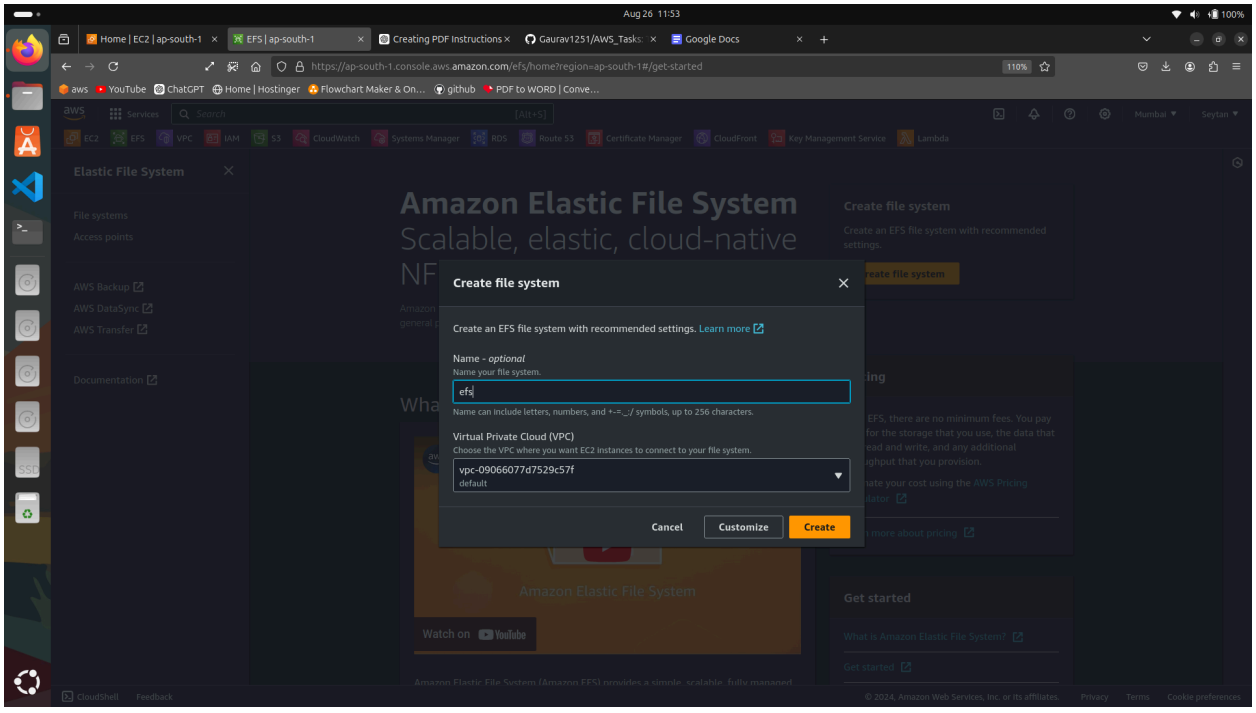
Diagrametic Representation:



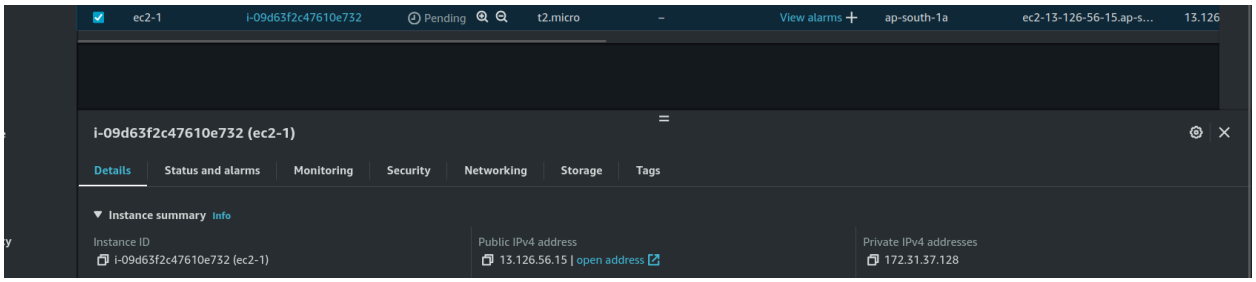
Step 1:Create an EFS in AWS.

What is an EFS?

→EFS stands for Elastic File System, a scalable file storage service provided by AWS. It allows multiple instances to access a file system concurrently, adapting automatically to changes in storage needs.



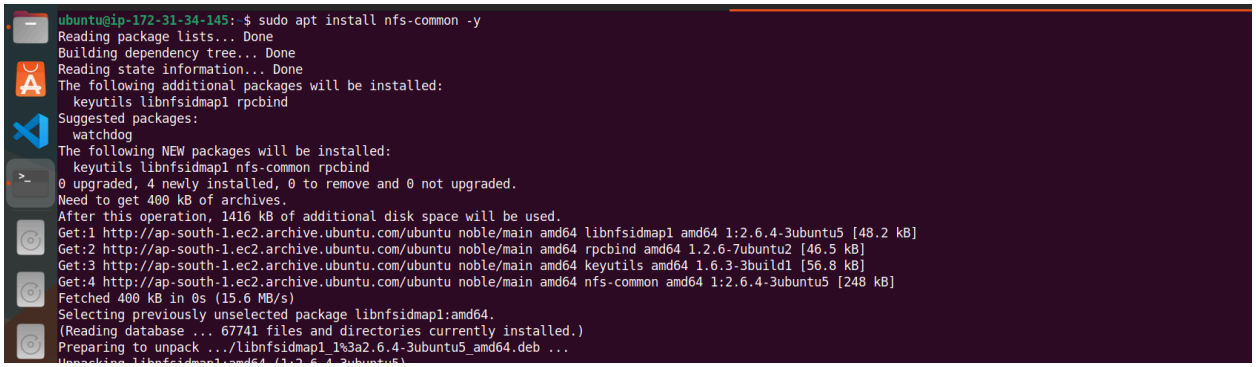
<u>Step 2</u>: Now Create 1st Ec2 instance, and get its access over terminal by using this command→<u>ssh -i private_key_pair.pem user@public_ip of instance.</u>



<u>Step 3</u>: Now install the nfs-common package
sudo apt install nfs-common -y

To access Amazon EFS, you typically need to install the `nfs-common` package on your Linux instance. This package provides the necessary NFS (Network File System) client utilities to mount and interact with the EFS file system.

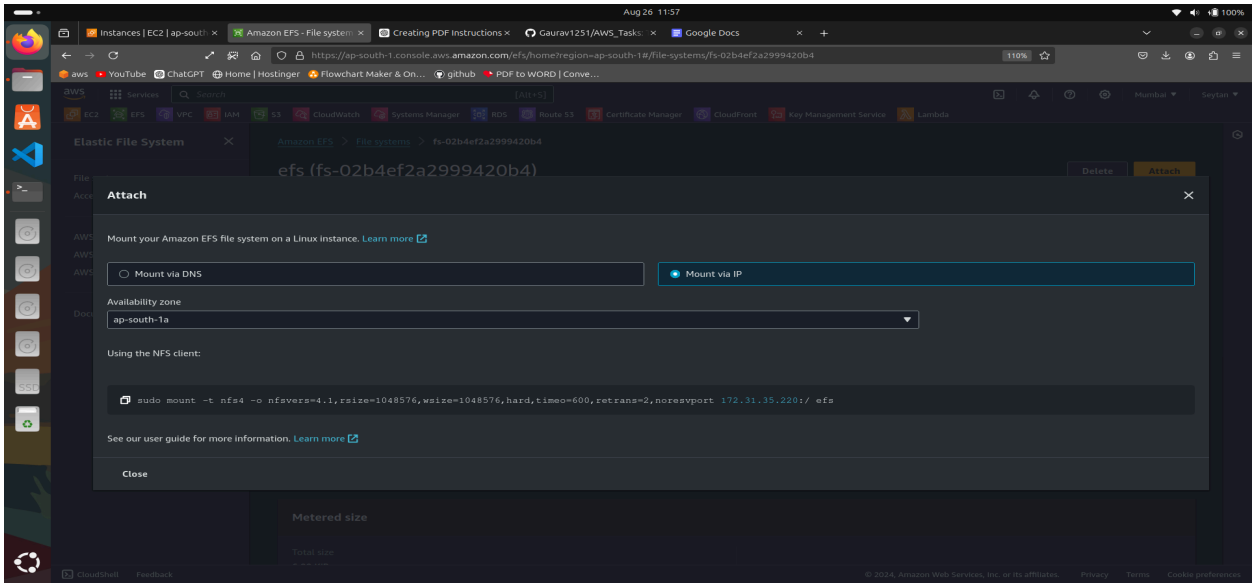
What is NFS ?
→NFS, or Network File System, is a protocol that allows a computer to access files over a network as if they were on its local storage. It enables file sharing between systems and is commonly used in environments where multiple machines need to access shared data, such as with Amazon EFS.

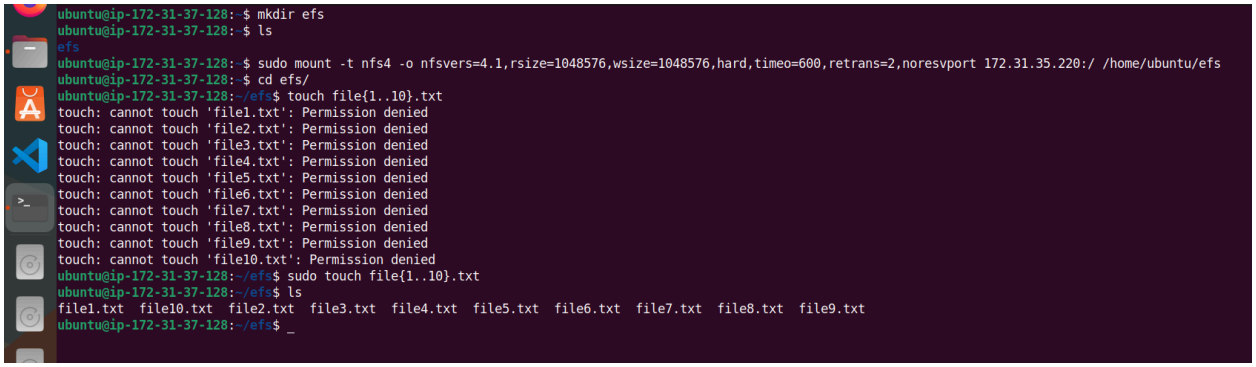


Step 4:Now create a mounting directory in ec2 instance.

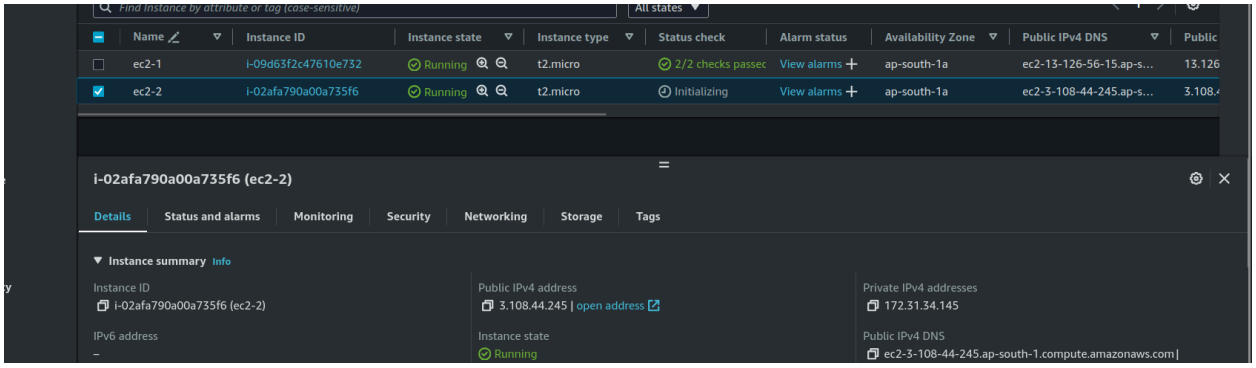
mkdir efs

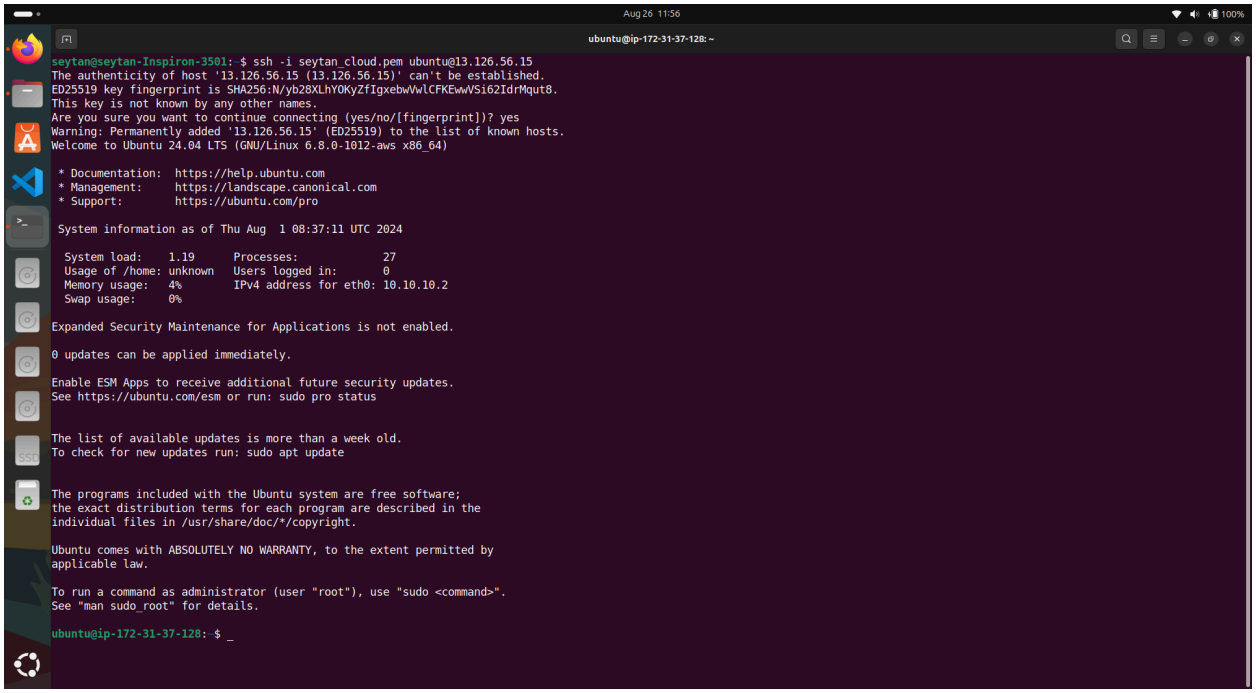
Now copy the mounting dns from efs via attach button.
Command →sudo mount -t nfs4 -o nfsvers=4.1 <EFS-DNS-Name>:/ /path of efs dir on ec2 instance.
After this do cd efs then create some files in that efs directory.
cd efs
Touch file{1..10}.txt



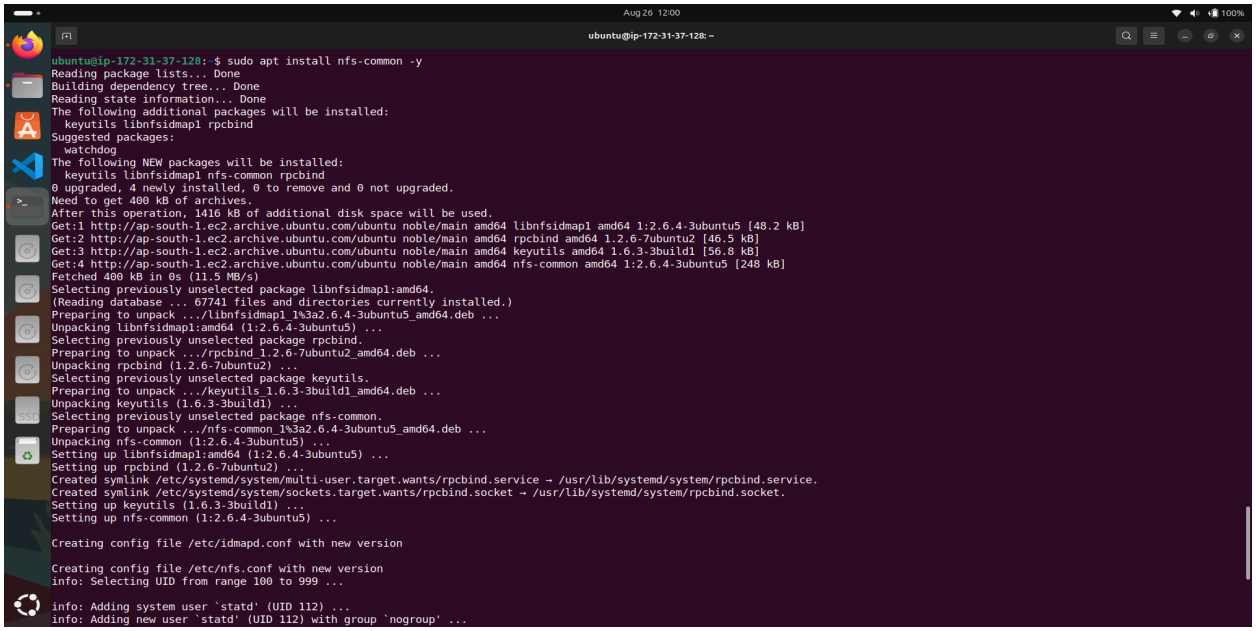


Step 5: Now Create another ec2 instance and gets its access over terminal.

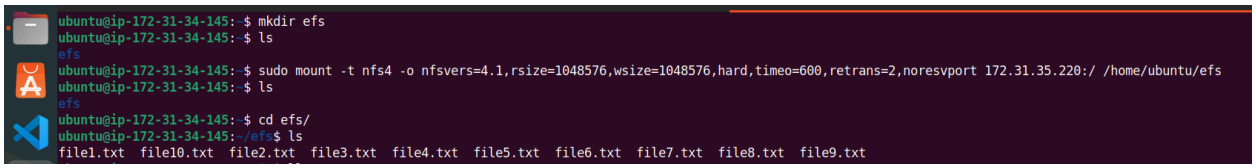




<u>Step 6:</u> Now here also install the nfs-common package.
Make directory efs
mkdir efs
Now copy the mounting dns from efs via attach button for 2nd instance .
Command →sudo mount -t nfs4 -o nfsvers=4.1 <EFS-DNS-Name>:/ /path of efs dir on ec2 instance.



<u>Step 7</u>: Verify the files on ec2 2nd instance efs created by the ec2 1st instance.



Conclusion: By successfully setting up an EFS and attaching it to multiple EC2 instances, you ensure seamless data sharing across instances. This task demonstrates the ability to create a scalable, shared storage solution in AWS, which is essential for managing distributed applications and ensuring consistency of data across different compute environments.