NFS Server Setup

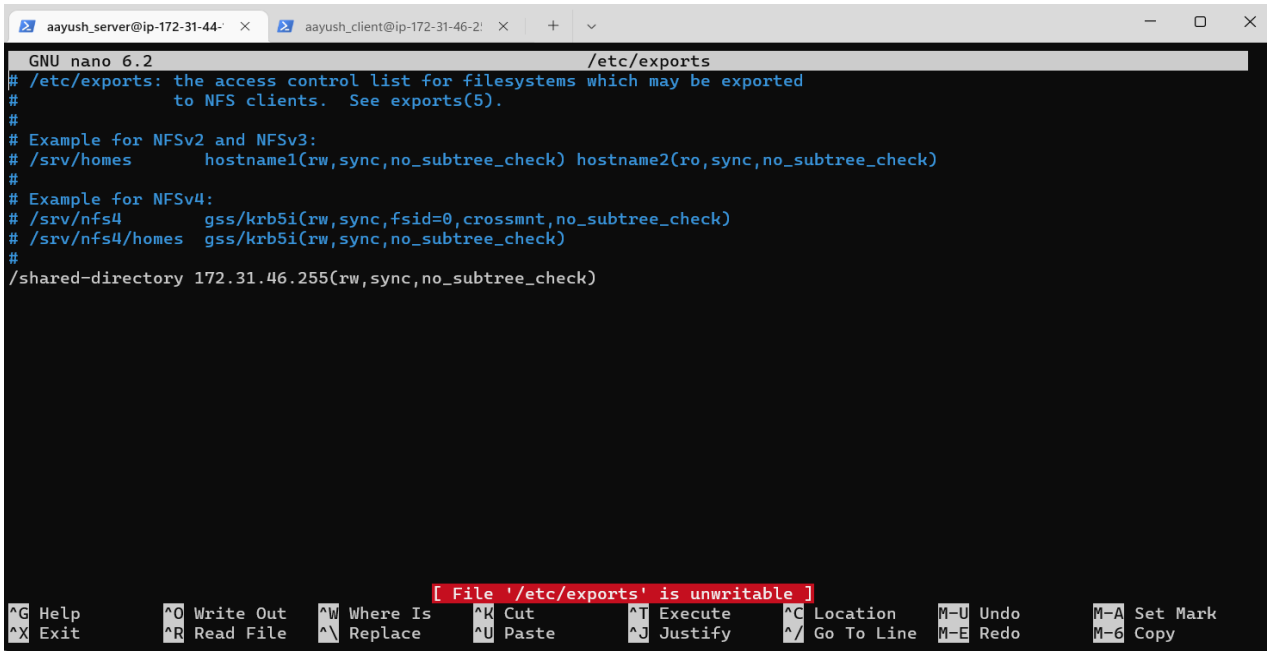
1. **Install NFS Server Packages:** On the server (172.31.44.132), install the NFS server package.

   sudo apt update

   sudo apt install nfs-kernel-server

2. **Configure Shared Directories:** Edit the /etc/exports file to define which directories to share and the permissions.

   sudo nano /etc/exports



Add a line for the directory you want to share, specifying the client IP address and permissions. For example:

/shared-directory 172.31.46.255(rw,sync,no_subtree_check)

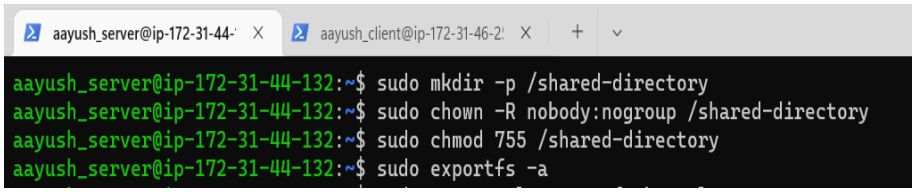
- /shared-directory is the directory you want to share.
- 172.31.46.255 is the client IP address.
- rw allows read and write access.
- sync ensures changes are written synchronously.
- no_subtree_check prevents checking of the directory subtree.

3. **Create and Set Permissions for Shared Directory:**

   sudo mkdir -p /shared-directory

   sudo chown -R nobody:nogroup /shared-directory

sudo chmod 755 /shared-directory



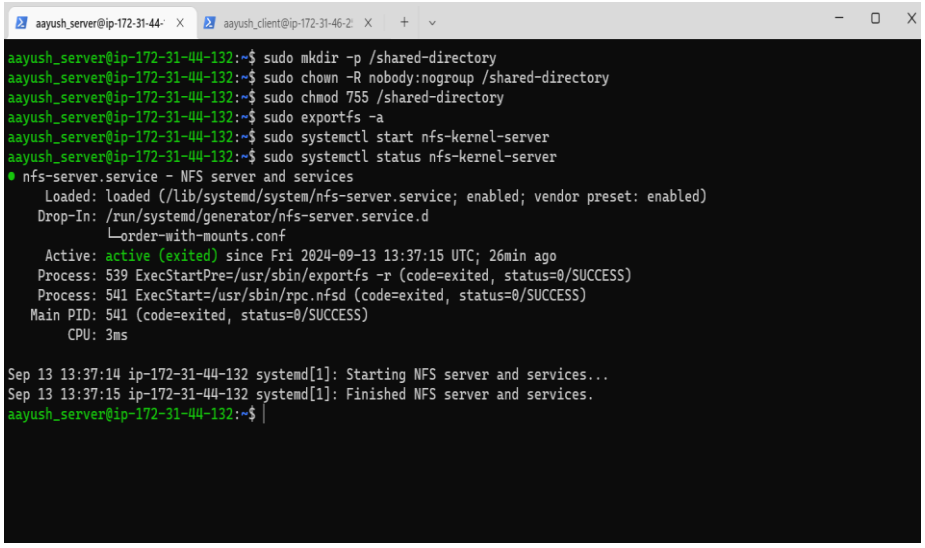
4. **Export the Shared Directory:**

   sudo exportfs -a

5. **Start and Enable the NFS Server:**

   sudo systemctl start nfs-kernel-server

   sudo systemctl enable nfs-kernel-server



6. **Open Firewall for NFS (if applicable):**

   sudo ufw allow from 172.31.46.255 to any port nfs

NFS Client Setup

1. **Install NFS Client Packages:** On the client (172.31.46.255), install the NFS client package.

   sudo apt update

   sudo apt install nfs-common

2. **Create a Mount Point:**

   sudo mkdir -p /mnt/shared-directory

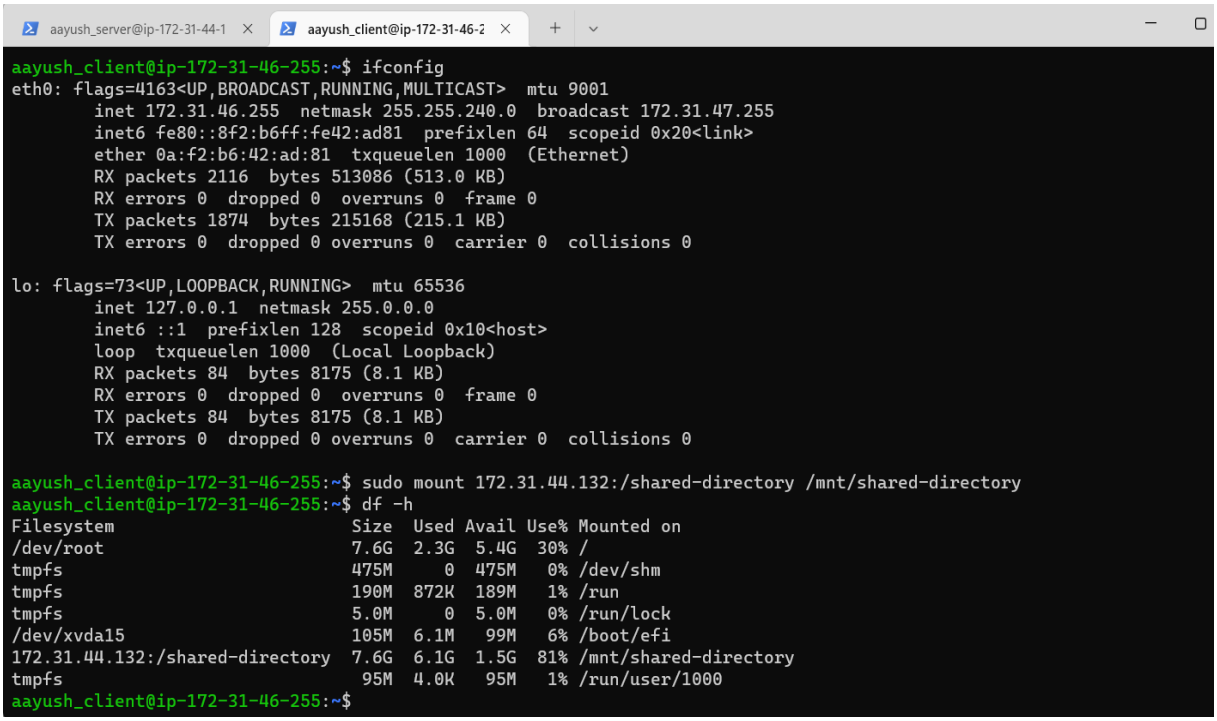
3. **Mount the NFS Share:**

   sudo mount 172.31.44.132:/shared-directory /mnt/shared-directory

4. **Verify the Mount:**

   df -h

   Check if /mnt/shared-directory is listed as mounted.

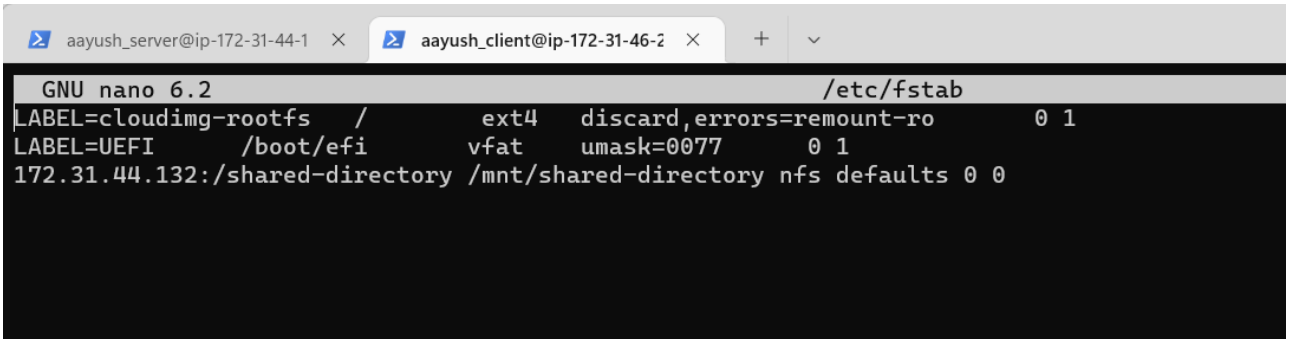


5. **Configure Automatic Mount at Boot:** To automatically mount the NFS share on boot, add an entry to /etc/fstab.

   sudo nano /etc/fstab

Add the following line:

172.31.44.132:/shared-directory /mnt/shared-directory nfs defaults 0 0



6. **Test the Configuration:**

Reboot the client machine or use mount -a to test the automatic mounting.

sudo mount -a

Create files

On the NFS Server

1. **Navigate to the Shared Directory:**

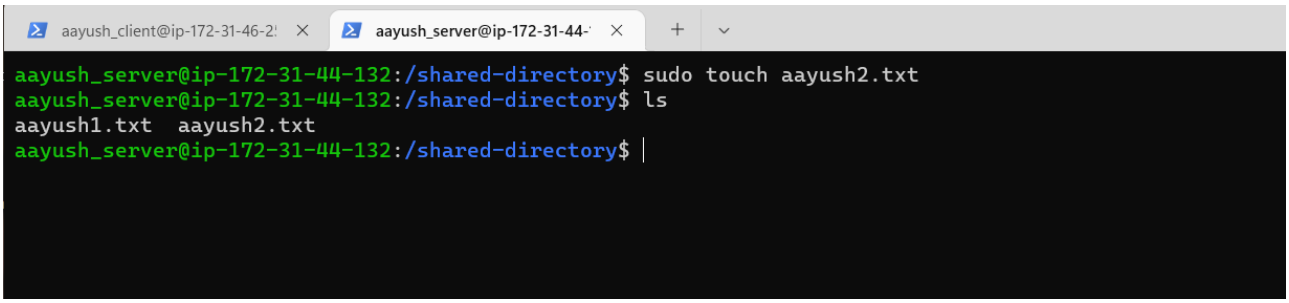
cd /shared-directory

2. **Create a File:** You can create a file using various commands, such as touch, echo, or using a text editor.

sudo touch aayush2.txt

3. **Verify Permissions:** Ensure that the permissions are set correctly so that the client can access the file.

ls -l



On the NFS Client

1. **Navigate to the Mounted Directory:**

   cd /mnt/shared-directory

2. **Create a File:** Similar to the server, you can create a file on the client using:

   touch aayush1.txt

3. **Verify File Creation:** Check the directory to ensure the file has been created.

   ls -l