Create a FTP with following instruction

1) 4 Users named: - raj, neel, ashu, deep

2) Create a local\_root ftp directory for each user:- /opt/<username>/ftp/update. and path is not that the user's home directory along with that give a bash shall, Note that:- local ftp directory and user home directory will be different.

3) Add all user into the /etc/vsftpd/user\_list as per standard and syntax

4) Give read write execute permission to the user on their local\_root directory and other user does not have any permission.

5) To add local\_root create a per-user config file as per their standard.

6) Deny multimedia file to be upload in the ftp by individual users.

Here’s how you can set up an FTP server with vsftpd while meeting all your requirements.

Step 1: Install vsftpd

If not already installed, install vsftpd:

For Ubuntu/Debain

**sudo apt update**

**sudo apt install vsftpd -y**

For CentOS/RHEL:

**sudo yum install vsftpd -y**

Enable and start the service:

**sudo systemctl enable vsftpd --now**

Step 2: Create Users

Create the users without setting their home directories as FTP directories:

**for user in raj neel ashu deep; do**

**sudo useradd -m -s /bin/bash "$user"**

**echo "$user:password" | sudo chpasswd # Replace 'password' with actual passwords**

**done**

USER creation script. Save this file as users.sh and run.

Step 3: Create FTP Directories

For each user, create the required FTP directory and set permissions:

**for user in raj neel ashu deep; do**

**sudo mkdir -p /opt/$user/ftp/update**

**sudo chown -R $user:$user /opt/$user/ftp**

**sudo chmod 750 /opt/$user/ftp/update**

**done**

FTP directory scripts. Save as ftp\_directory.sh and run

Step 4: Add Users to vsftpd User List

Edit /etc/vsftpd/user\_list and add:

**echo -e "raj\nneel\nashu\ndeep" | sudo tee -a /etc/vsftpd/user\_list**

Ensure the file is used in vsftpd.conf:

**echo "userlist\_enable=YES" | sudo tee -a /etc/vsftpd.conf**

**echo "userlist\_file=/etc/vsftpd/user\_list" | sudo tee -a /etc/vsftpd.conf**

**echo "userlist\_deny=NO" | sudo tee -a /etc/vsftpd.conf**

Step 5: Configure Per-User Local Root Directories

Create the user config directory:

**sudo mkdir -p /etc/vsftpd/user\_conf**

For each user, create a configuration file:

**for user in raj neel ashu deep; do**

**echo "local\_root=/opt/$user/ftp/update" | sudo tee /etc/vsftpd/user\_conf/$user**

**echo "write\_enable=YES" | sudo tee -a /etc/vsftpd/user\_conf/$user**

**echo "anon\_upload\_enable=NO" | sudo tee -a /etc/vsftpd/user\_conf/$user**

**echo "anon\_mkdir\_write\_enable=NO" | sudo tee -a /etc/vsftpd/user\_conf/$user**

**done**

Per-User Local Root Directories script. Save as per\_user\_local\_root.sh

Enable per-user configuration in /etc/vsftpd.conf:

**echo "user\_config\_dir=/etc/vsftpd/user\_conf" | sudo tee -a /etc/vsftpd.conf**

Step 6: Block Multimedia File Uploads (Globally Denied)

Edit /etc/vsftpd.conf to restrict certain file types:

**echo "deny\_file={\*.mp3,\*.mp4,\*.avi,\*.mkv,\*.flv,\*.mov,\*.wav}" | sudo tee -a /etc/vsftpd.conf**

User based file block will also used and to accomplish same instruction must put in /etc/vsftpd/user\_conf/$user configuration file.

Step 7: Restart vsftpd Service

**sudo systemctl restart vsftpd**

Step 8: Testing FTP Access

Try logging in as each user via FTP and test:

**ftp localhost**

Note:

Each user should:

* Be chrooted to /opt/<username>/ftp/update.
* Have read, write, and execute permissions only in their directory.
* Be denied multimedia file uploads.
* File inside the /etc/vsftpd/user\_conf/ must be same as username, so identification will become easy.
* If a FTp admin who wants to access all other available user’s data add as follows.

**Useradd SCCC**

**Passwd SCCC (eg. sccc)**

SCCC will be a member of another available group so that the group ownership adheres to the group permissions, just like the primary group..

**Usermod -aG AHM SCCC** (this command will add SCCC user in the AHM group as secondary group)

**Chown AHM:SCCC /police\_department/AHM/**

**Final Entry /etc/vsftpd/vsftpd.conf file content**

**anonymous\_enable=NO**

**local\_enable=YES**

**write\_enable=YES**

**local\_umask=022**

**dirmessage\_enable=YES**

**xferlog\_enable=YES**

**connect\_from\_port\_20=YES**

**xferlog\_std\_format=YES**

**chroot\_local\_user=YES**

**allow\_writeable\_chroot=YES**

**user\_config\_dir=/etc/vsftpd/user\_conf**

**listen=YES**

**listen\_ipv6=NO**

**pam\_service\_name=vsftpd**

**userlist\_enable=YES**

**userlist\_deny=NO**

**userlist\_file=/etc/vsftpd/user\_list**

**tcp\_wrappers=YES**

**pasv\_min\_port=30000**

**pasv\_max\_port=31000**

**max\_clients=50**

**max\_per\_ip=50**

**Final Entry /etc/vsftpd/user\_conf/raj per\_user\_local\_root\_Directory**

**local\_root=/opt/raj/ftp**

**write\_enable=YES**

**download\_enable=YES**

**anon\_upload\_enable=NO**

**anon\_mkdir\_write\_enable=NO**

**deny\_file={\*.jpeg,\*.mp3,\*.mp4,\*.avi,\*.iso}**

**Final entry in the user\_list**

**Raj**

**Neel**

**Kinjal**

Note that each line has only one user