1. Start the FTP server on the machine and check if we may connect with any user. Test the access from a client in text mode and from graphic mode (on Windows and Linux). To check that users can download files from the server, you have to include some files in the /var/serverftp. Also check if they can upload files to the server (mput).

```
edison@edison-VirtualBox:~$ systemctl start vsftpd.service
edison@edison-VirtualBox:~$ ftp localhost
Connected to localhost.
220 (vsFTPd 3.0.3)
Name (localhost:edison): edison
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```
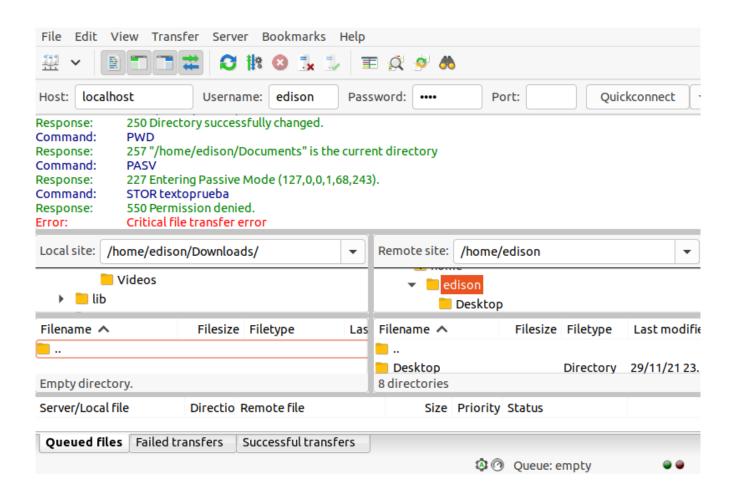
File   Edit   View   Transfer   Server   Bookmarks   Help

Host: localhost   Username: edison   Password: ••••   Port: Quickconnect

Response: 250 Directory successfully changed.
Command: PWD
Response: 257 "/home/edison/Documents" is the current directory
Command: PASV
Response: 227 Entering Passive Mode (127,0,0,1,68,243).
Command: STOR textoprueba
Response: 550 Permission denied.
Error: Critical file transfer error

Local site: /home/edison/Downloads/   ▼   Remote site: /home/edison   ▼

　　　　📁 Videos   ▼ 📁 edison
　▶ 📁 lib   📁 Desktop

Filename ∧	Filesize	Filetype	Las
📁 ..			

Empty directory.

Filename ∧	Filesize	Filetype	Last modifie
📁 ..			
📁 Desktop		Directory	29/11/21 23.

8 directories

Server/Local file	Directio	Remote file	Size	Priority	Status

Queued files   Failed transfers   Successful transfers

　　　　　　　　　　　　　　　　　　🔒⊘ Queue: empty   ● ●

```
Connected to localhost.
220 (vsFTPd 3.0.3)
Name (localhost:edison): edison
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> mput prueba.txt
mput prueba.txt? y
200 PORT command successful. Consider using PASV.
150 Ok to send data.
226 Transfer complete.
```

2. Configure the welcome message so that when users access it, they read the following: "Welcome to the student_name DAW FTP server".

```
edison@edison-VirtualBox:/etc$ ftp localhost
Connected to localhost.
220 Welcome to Edison's server
```

3. Activates the display of messages when entering a directory. To do this, it displays the following message when users enter the private directory within /var/serverftp: "This directory contains private information that must be treated with total confidentiality."

```
edison@edison-VirtualBox:/etc$ ftp localhost
Connected to localhost.
220 Welcome to Edison's server.
Name (localhost:edison): userftp
331 Please specify the password.
Password:
230-Esta es mi carpeta personal y prohibida
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls -l
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
-rw-rw-r--    1 1001      133             0 May 09 21:03 index.txt
226 Directory send OK.
```

4. Activate anonymous user access and check its operation. Turn it off again after verification.

```
edison@edison-VirtualBox:/etc$ ftp localhost
Connected to localhost.
220 Welcome to Edison's server.
Name (localhost:edison): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
```

5. Enable local user access. Local users will have write permissions, so they can upload files (and create new directories) in their home directory. Users by default will be confined to their home directory, not being able to leave it.

```
edison@edison-VirtualBox:/etc$ ftp localhost
Connected to localhost.
220 Welcome to Edison's server.
Name (localhost:edison): edison
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> cd /var/
250 Directory successfully changed.
```

6. We will create a new user on the server so that you can access via FTP. This user will be able to move around the entire directory tree of the computer. (Hint: chroot_list_enable).

```
edison@edison-VirtualBox:/etc$ ftp localhost
Connected to localhost.
220 Welcome to Edison's server.
Name (localhost:edison): userftp2
331 Please specify the password.
Password:
230-Esta es mi carpeta personal y prohibida
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> cd ~
250 Directory successfully changed.
ftp> cd /var/
250 Directory successfully changed.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
drwxr-xr-x    2 0        0            4096 May 10 18:08 backups
drwxr-xr-x   17 0        0            4096 May 10 18:16 cache
drwxrwsrwt    2 0        125          4096 Jul 31  2020 crash
drwxr-xr-x   64 0        0            4096 Nov 29 22:07 lib
drwxrwsr-x    2 0        50           4096 Apr 15  2020 local
lrwxrwxrwx    1 0        0               9 Nov 29 20:55 lock -> /run/lock
drwxrwxr-x   13 0        110          4096 May 10 17:22 log
drwxrwsr-x    2 0        8            4096 Jul 31  2020 mail
drwxrwsrwt    2 0        125          4096 Jul 31  2020 metrics
drwxr-xr-x    2 0        0            4096 Jul 31  2020 opt
lrwxrwxrwx    1 0        0               4 Nov 29 20:55 run -> /run
```

7. Configure the FTP server appropriately to allow anonymous users to upload files. Check its correct operation.

```
edison@edison-VirtualBox:/etc$ ftp localhost
Connected to localhost.
220 Welcome to Edison's server.
Name (localhost:edison): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
drwxrwxr-x    2 0            133            4096 May 10 19:44 anonymous
226 Directory send OK.
ftp> cd anonymous
250 Directory successfully changed.
ftp> put prube_anonymous.txt
local: prube_anonymous.txt remote: prube_anonymous.txt
local: prube_anonymous.txt: No such file or directory
```