tor-file-transfer-project

File transfer project using sockets, python and threads.

The project consists of an application where it has a central server and several clients that will connect to this server by setting up a network.

Users can do file searches on the server and do upload and download these files.

Server: Tor-Server. Users: Client-Server (Peer-to-Peer / P2P).

Application Installation and Execution:

- Must be with Python installed, preferably on latest version Updated:

(Version used: Python 3.6.8)

Install Python for Linux/MacOS/Windows

- Must be with pip3 installed:

How to install pip3 on Linux

How to install pip3 on MacOS

How to install pip3 on Windows

- You need to use the library (tqdm) to use the progressive bar:

How to install tqdm

Select one of the commands below:

Linux:

```
pip3 install tqdm
```

```
conda install -c conda-forge tqdm
```

```
snap install tqdm
```

MacOS:

```
pip3 <package_name>
```

Windows:

```
pip install <package_name>
```

Comments:

Tor-Server:

When executed it creates the **'tor_files'** folder where the files that are uploaded by clients and which can be downloaded.

Tor-Client:

Each executed client creates a folder called **'client_files'** with two folders inside called **'download'** and **'upload'**. To avoid conflicts for each client that will be executed create a folder containing the client name and put in the **'main_client.py'** and the **'tor_client.py'** files.

To execute the project:

Tor-Server:

Execute using a hosted server:

Tor-Server was hosted at DigitalOcean.

To execute the server run the followings commands:

```
ssh root@<ip_server>
```

Then enter your password and run:

```
git clone https://github.com/pjavier98/tor-file-transfer-project

cd tor-file-transfer-project/tor-project

python3 main_server.py
```

Execute locally:

Open your terminal and run the followings commands to run the tor-server:

```
git clone https://github.com/pjavier98/tor-file-transfer-project

cd tor-file-transfer-project/tor-project
```

```
python3 main_server.py
```

Tor-Client:

To execute:

Open your terminal and run the followings commands to run a tor-client:

```
git clone https://github.com/pjavier98/tor-file-transfer-project

cd tor-file-transfer-project/tor-project

mkdir <client_name>

cp main_client.py tor_client.py <client_name>

cd <client_name>

python3 main_client.py
```

If you want to connect with the Server on Digital Ocean:

- IP: 67.205.133.143
- Port: 7777

Now you are ready to download and upload files, share knowledge and other things with other people around the world!!!