

How to run the code (Python):

1 Computer (This is possible for TCP/UDP):

- 1) Change the “server_address” in the client code to the ip 127.0.0.1
- 2) Put the server script and client script into the same directory.
- 3) Open one terminal to run the server script. Then open another terminal and run the client script.
- 4) Use ctrl+c to stop the programs and wait a few seconds for the threads to terminate and the client to close its connection.
- 5) The client and server logs will be created as .txt files and you can check them to see their interactions.

2 Computers(This is possible for TCP/UDP/MPTCP):

- 1) If you plan on running the code using two different computers on the linux download the following

```
apt install mptcpize  
apt install iperf  
apt install wireshark  
apt install net-tools  
apt install git
```

- 2) Using virtual machines make sure to connect the virtual machines to the same network so they can be on the same subnet. To know if they are on the same subnet the first three numbers should be identical (i.e. 192.168.1.x and 192.168.1.x).
- 3) To make sure the virtual machines are connected you can ping the computers using “ping x.x.x.x”. x.x.x.x is the ip address of the computer you want to ping.
- 4) Change “server_address” in the client code to the ip of the machine you plan on running the server.
- 5) Run the server on one machine, (if you wish to wireshark capture then run wireshark on another terminal on the same machine as the server), then run the client on the other machine.
- 6) (If you are using wireshark then save the file, then use ctrl+c to stop the programs and wait a few seconds for the threads to terminate and the client to close its connection.
- 7) The client and server logs will be created as .txt files and you can check them to see their interactions. If you are having trouble accessing the logs it might be because you do not have permission. Consider using the option below. (I had this issue, chmod granted me permission).

```
chmod +r /file location/filename
```