CS359: Computer Networks Lab
Tut03 - Assignment 3

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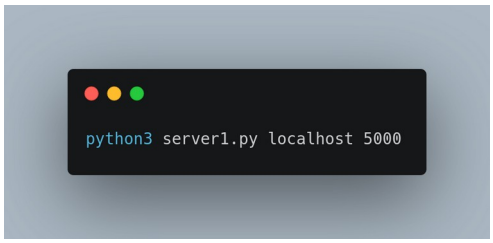
Note: Ubuntu 20.04 OS and Python 3.10.6 used for this Assignment.

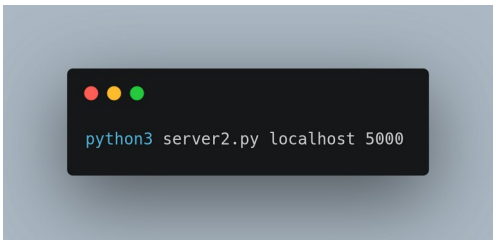
Commands to run code:

To run the server, open a terminal or command prompt and navigate to the directory . Then, run the following command:

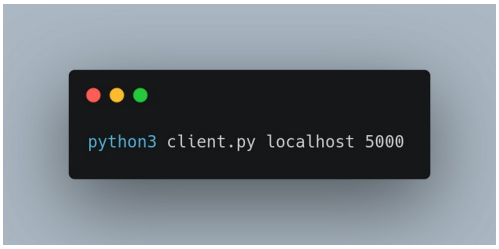
filename : server1.py, server2.py, server3.py, server4.py, client.py
hostname: localhost i.e 127.0.0.1
portnumber: port to be used

Replace `<host_name>` and `<port_number>` with the IP address and port number you want the server to listen on, respectively. For example, to run the server on localhost port 5000, you can use:

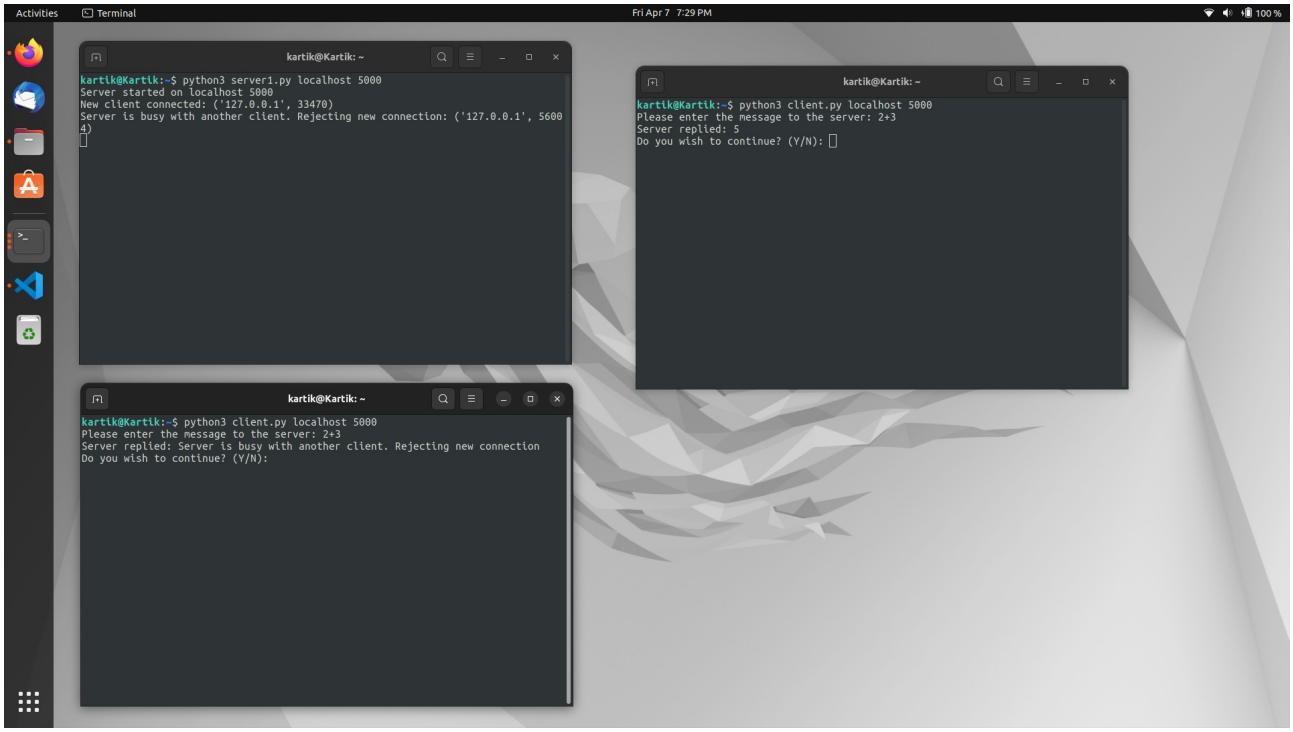




To run the client, open another terminal or command prompt. Then, run the following command:



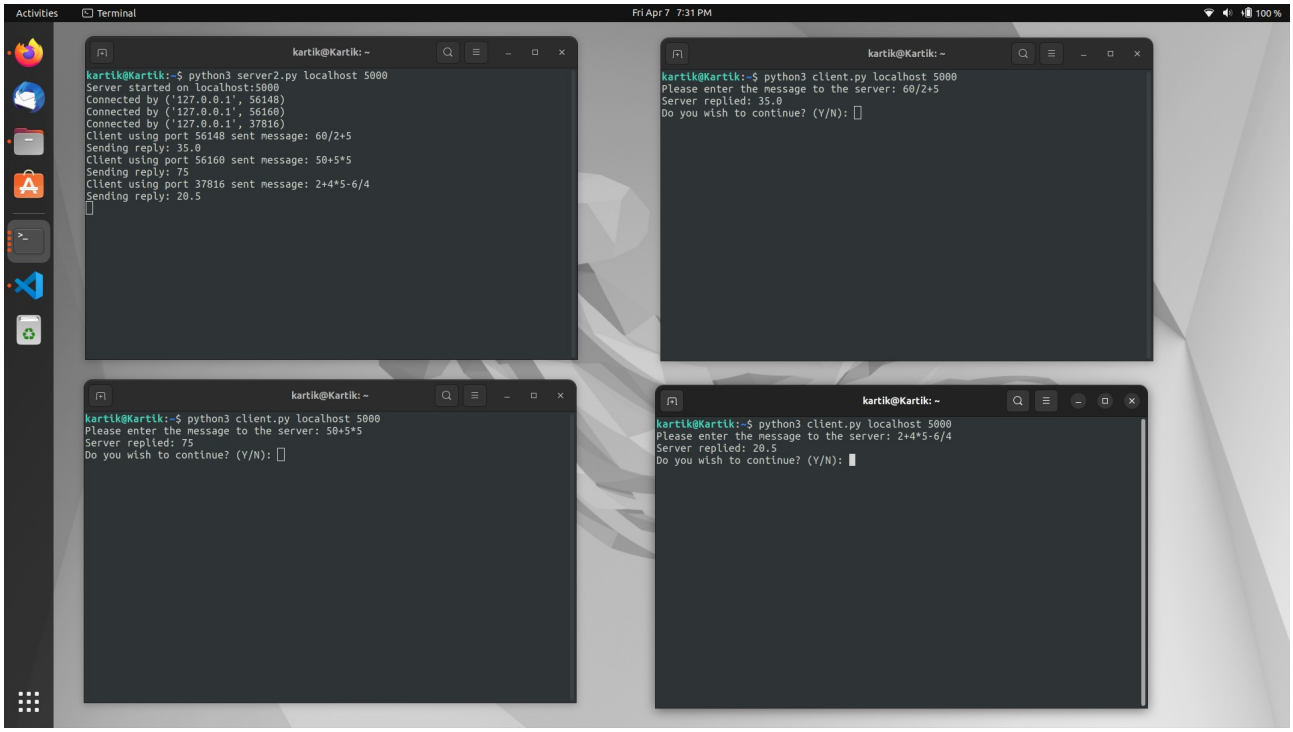
Output of Server 1:



As we can see that if another client tries to connect to server, It will rejects the connection and shows and error message.

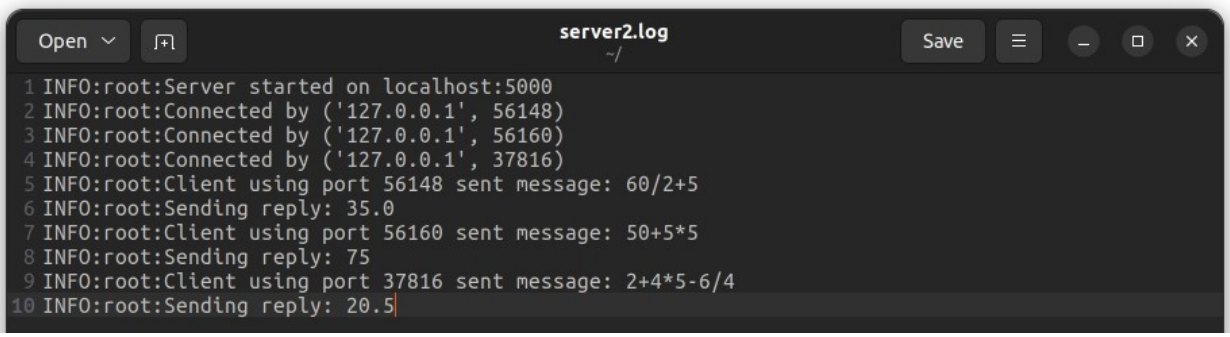
Logfile of server 1:

Output of Server 2:



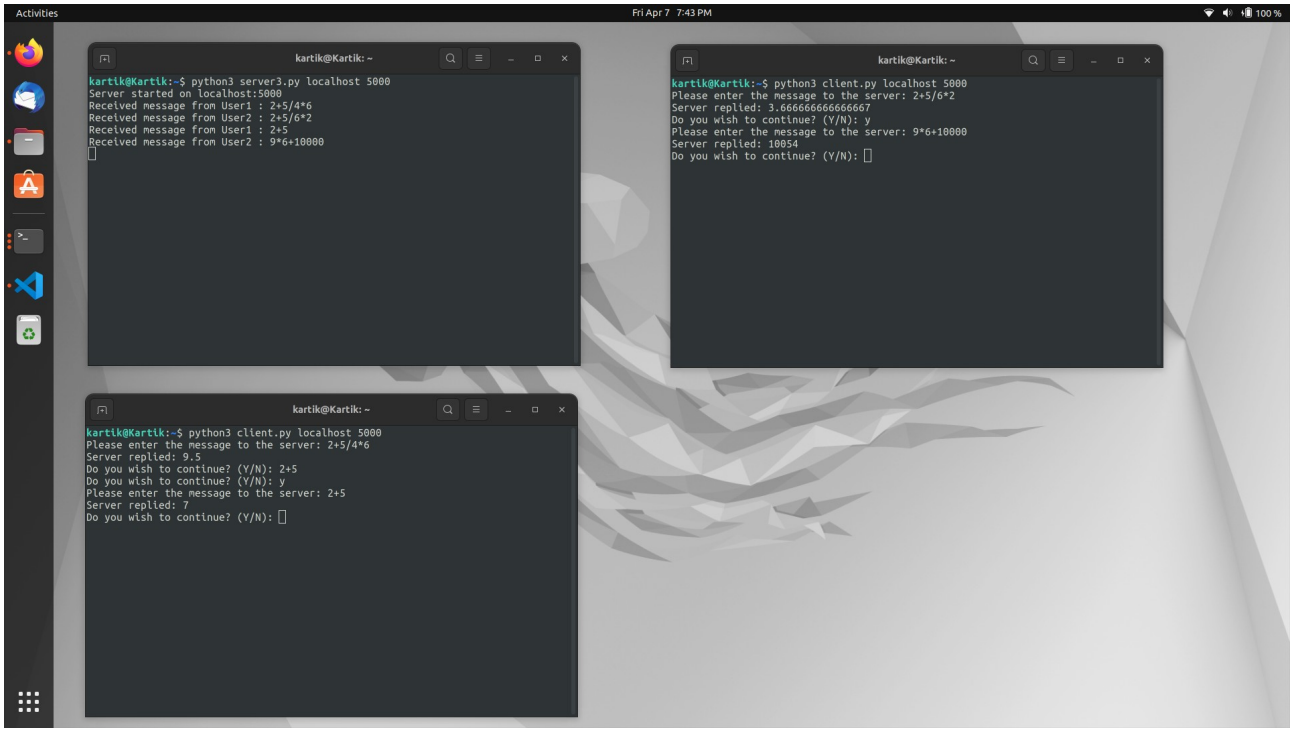
Multithreaded server, as we can see that multiple clients can use the server.

Logfile of server 2:



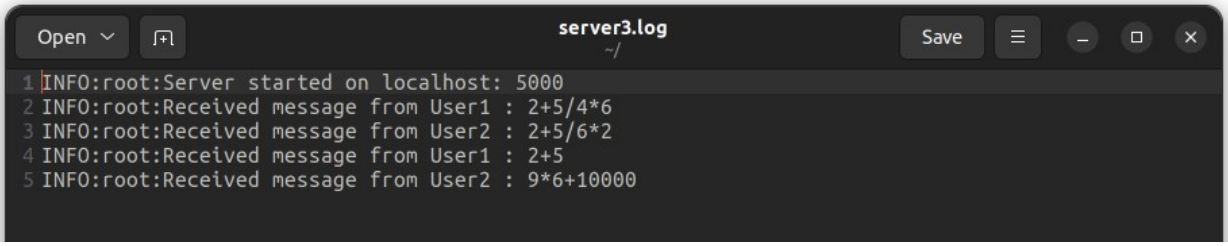
It shows that client using port_number sends a request and the servers respont to that request.

Output of Server 3:



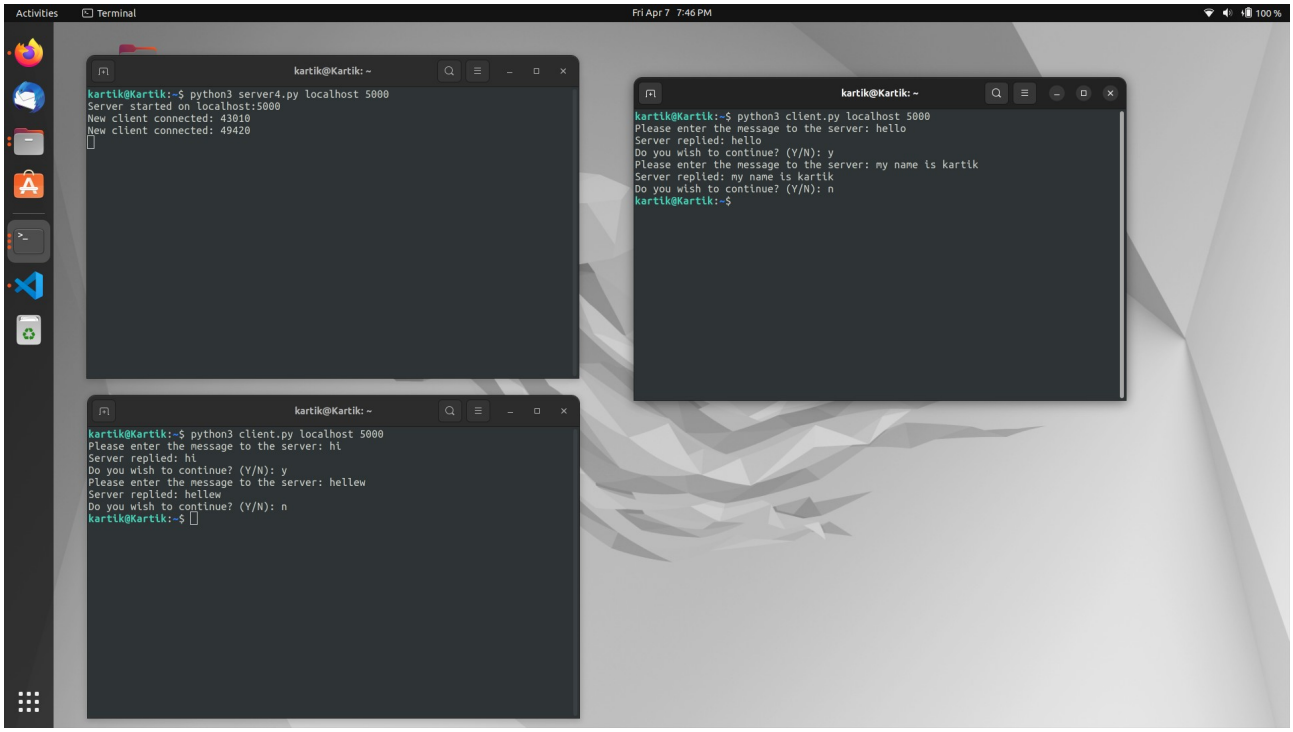
single process server that uses the “select” method to handle multiple clients concurrently.

Logfile of Server 3:



It shows that which user sends which request.

Output of Server 4:



This is a echo server which replies the same message to the client that was received from the same client.

Logfile of Server 4:

This file consists of clients port number and request made by client.

Conclusion :
The codes are running perfectly.
Additional feature implemented are logging which create a logfile of each server and if command line areguments are incorrect is shows which areguments to be used.

Link of Video Demo:

for_video_click_here