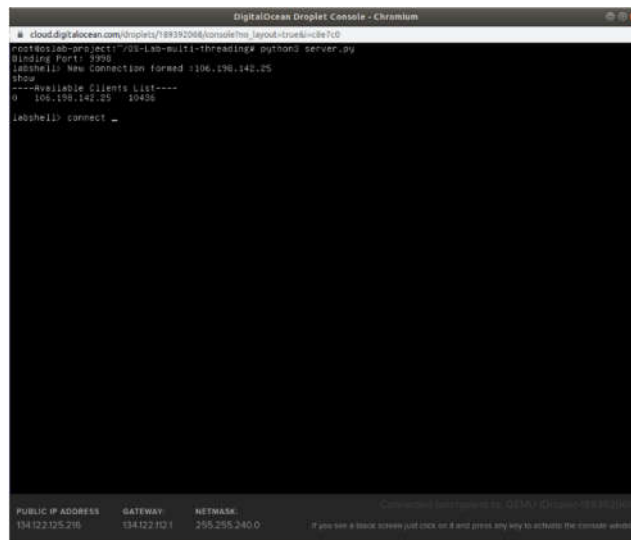


## Output screenshots



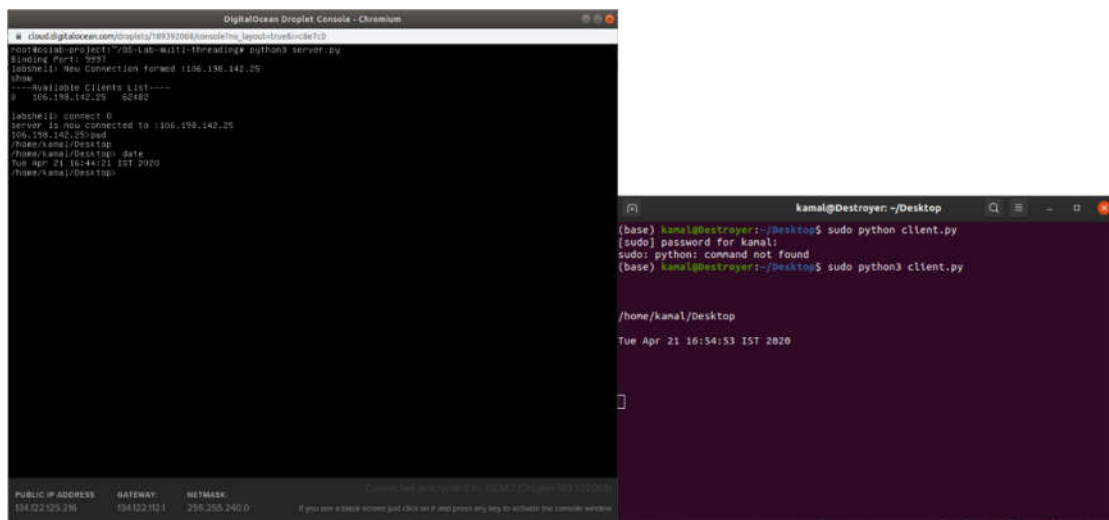
```
cloud.digitalocean.com/droplets/18932066/console?re_layou...
root@kali:~# python3 server.py
Binding Port: 9999
labshell: New Connection formed :106.198.142.25
show
----Available Clients List----
0 106.198.142.25 10436
labshell: connect _
```

PUBLIC IP ADDRESS	GATEWAY	NETMASK
134.122.125.216	134.122.10.1	255.255.240.0

Connected to your system by: 100Mhz (Ubuntu 18.04.2 LTS)

If you see a black screen just click on it and press any key to activate the console window.

## Starting up Online Server.py

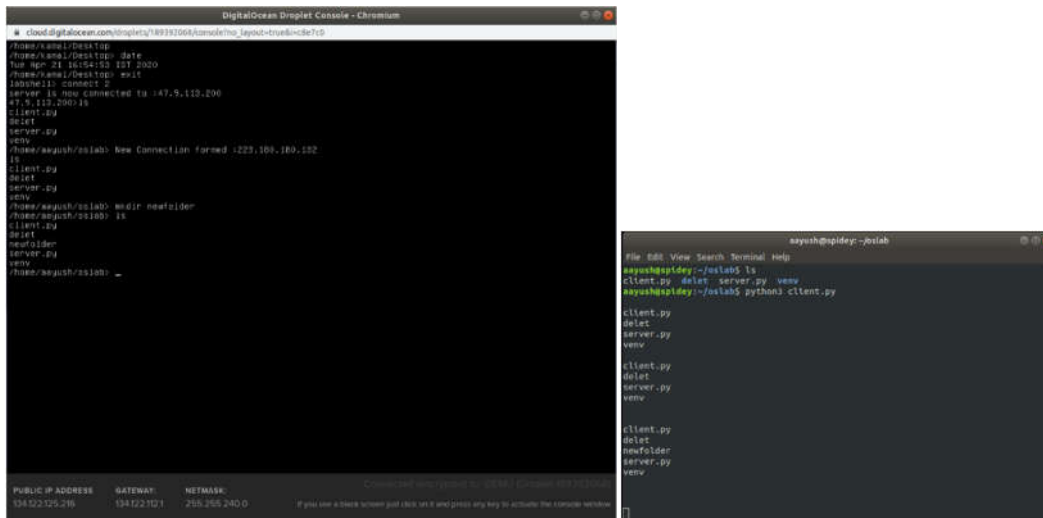


```
cloud.digitalocean.com/droplets/18932066/console?re_layou...
root@kali:~# python3 server.py
Binding Port: 9999
labshell: New Connection formed :106.198.142.25
show
----Available Clients List----
0 106.198.142.25 50482
labshell: connect 0
server is now connected to :106.198.142.25
/home/kamal/Desktop
/home/kamal/Desktop: date
Tue Apr 21 16:54:21 IST 2020
/home/kamal/Desktop
```

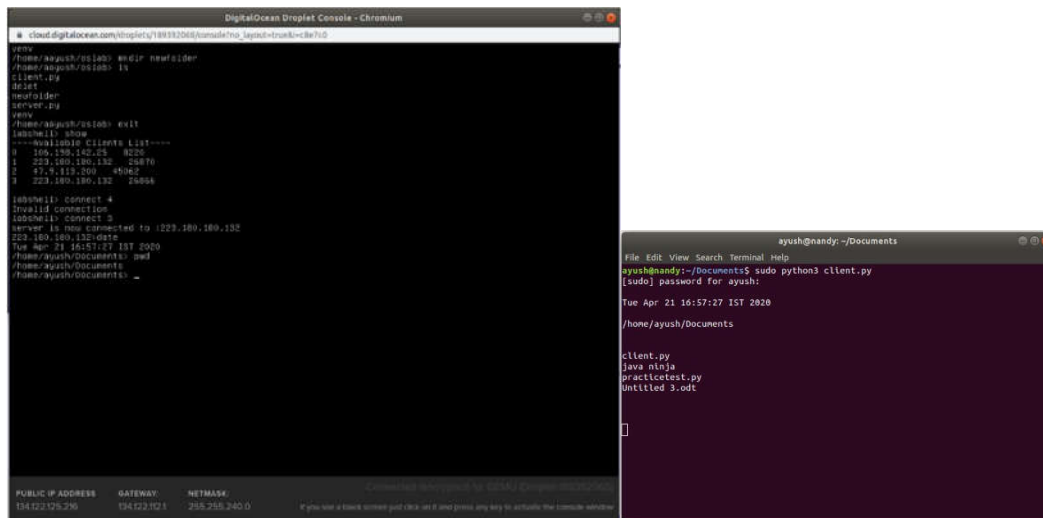
```
kamal@Destroyer: ~/Desktop
(base) kamal@Destroyer:~/Desktop$ sudo python client.py
[sudo] password for kamal:
sudo: python: command not found
(base) kamal@Destroyer:~/Desktop$ sudo python3 client.py

/home/kamal/Desktop
Tue Apr 21 16:54:53 IST 2020
```

## Accessing first client's Operating System



Adding more clients while accessing first client (Multithreading)



Making changes to third client's PC



## Conclusion

This project was full of opportunities, we got to learn and implement new concepts of Operating Systems and Socket Programming. We polished our programming skills and were able to make this project successful by completing our objective of implementing the concept of multithreading in a web server which could simultaneously accept requests from new clients without halting the operations performed on the target client. The python server shown was hosted on a public ip-address which could have been accessed from any part of the world, this was done using an online cloud service called digital ocean. The project is fully functioning and it can be run on any system by following a set of steps.

## References

- <https://realpython.com/python-sockets/>
- <https://docs.python.org/3/library/socket.html>
- <https://www.geeksforgeeks.org/socket-programming-python/>
- <https://www.geeksforgeeks.org/socket-programming-multi-threading-python/>
  - Stack Overflow
- <https://realpython.com/intro-to-python-threading/>