IT3010
Network Design & Management
3rd Year, 1st Semester

IT3010 – Network Design and Management

Assignment (Individual Assignment)

Submitted to

Sri Lanka Institute of Information Technology

In partial fulfillment of the requirements for the

Bachelor of Science Special Honors Degree in Information Technology

25/04/2024

Declaration

I certify that this report does not incorporate without acknowledgement, any material previously submitted for a degree or diploma in any university, and to the best of my knowledge and belief it does not contain any material previously published or written by another person, except where due reference is made in text.

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DNS Configuration and successful execution

Set VMware network settings to vmnet2-host_only and make IP settings to obtained IP address Manually

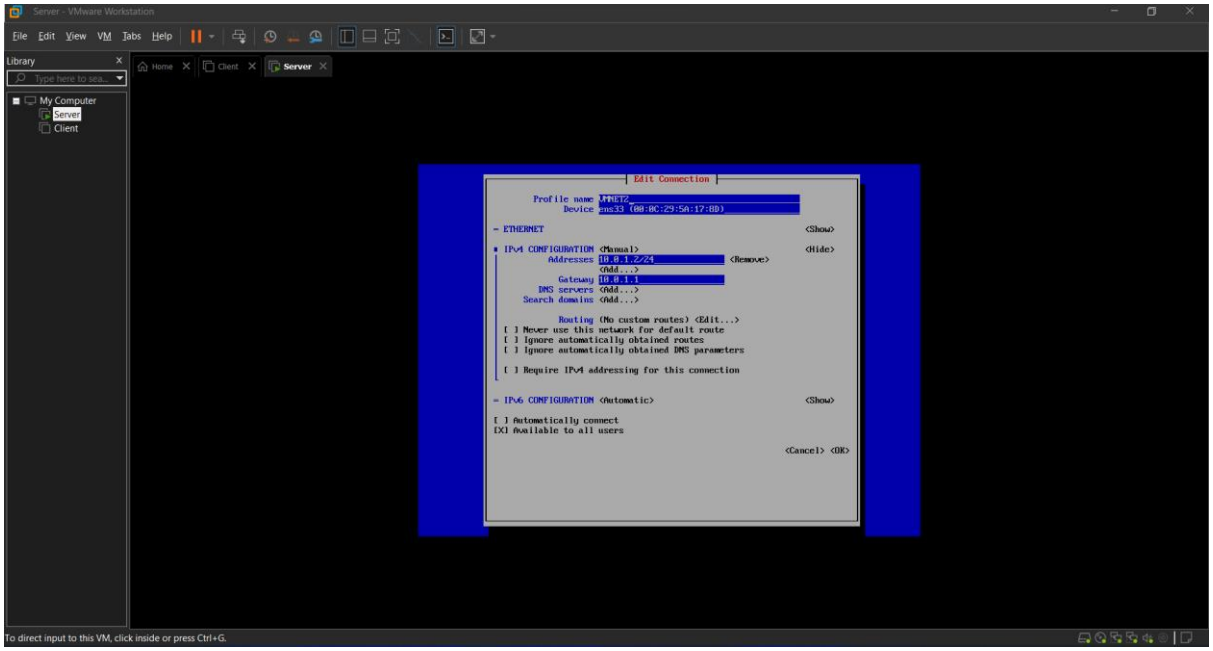

Figure 1:obtain IP addresses manually for VMnet2

Set host name

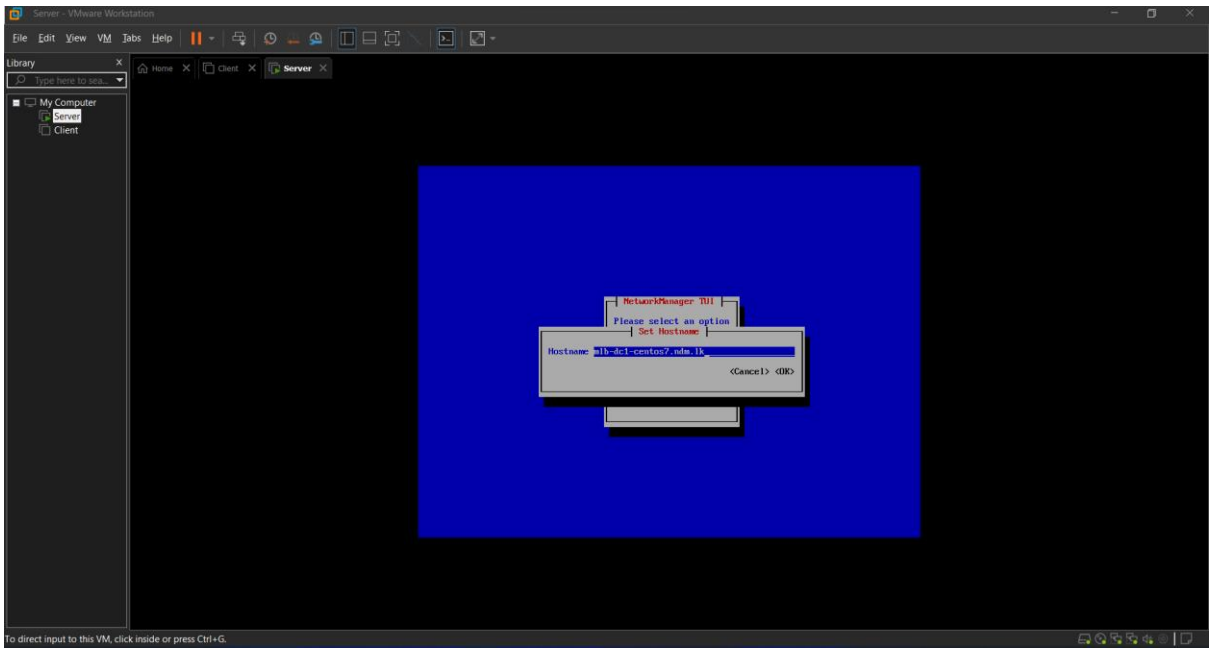

Figure 2:Set Host Name

Check hostname and Fully Qualified Domain Name

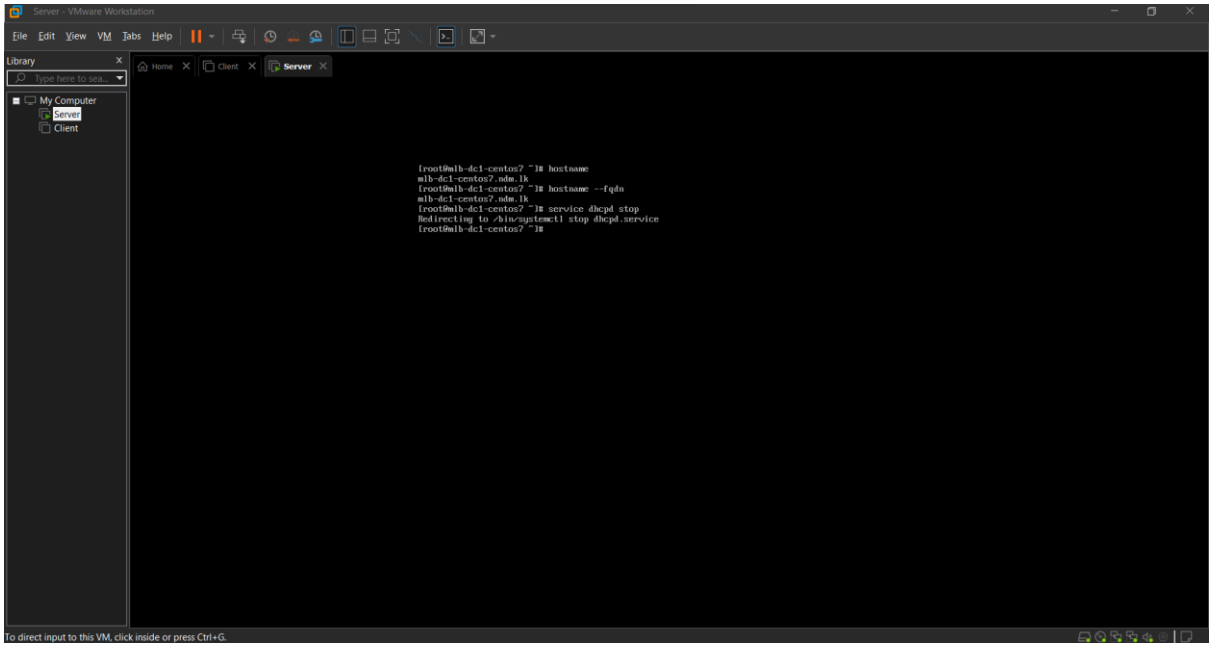

Figure 3:GGet domain name and fully qualified domain name

Use Ping command and perform a querying to existing internet domain

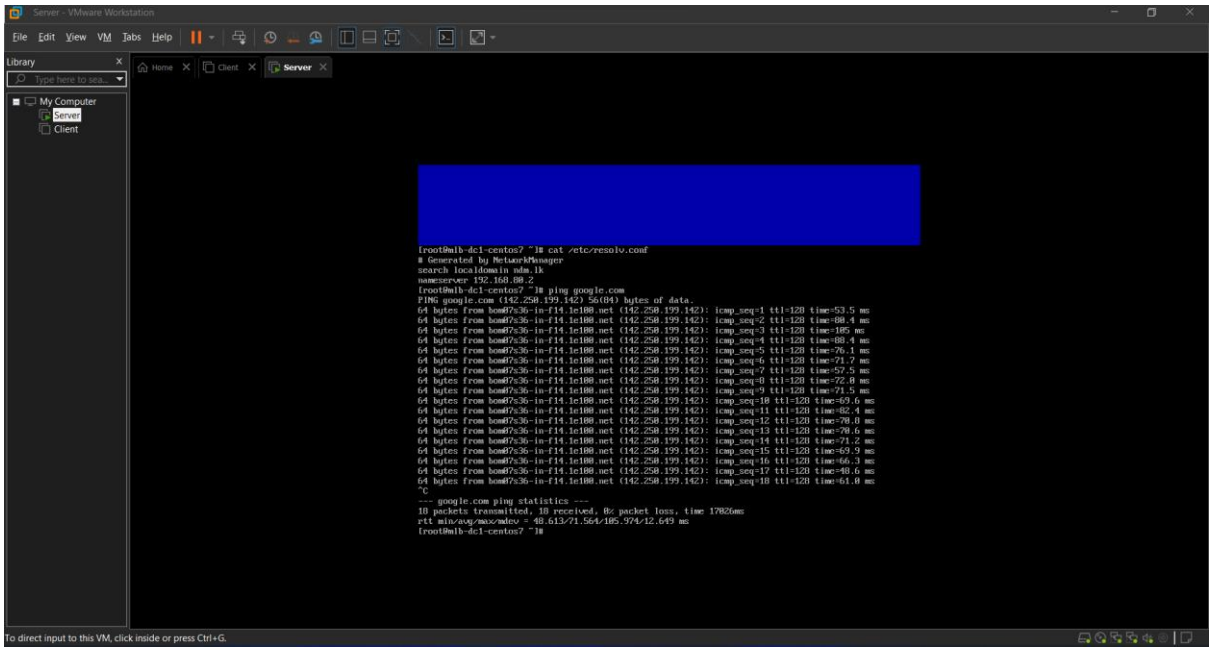

Figure 4:check network connectivity using ping command

First start named service by using [root@mlb-dc1-centos7]#service named start. Then , Check the status by using [root@mlb-dc1-centos7]#service named status

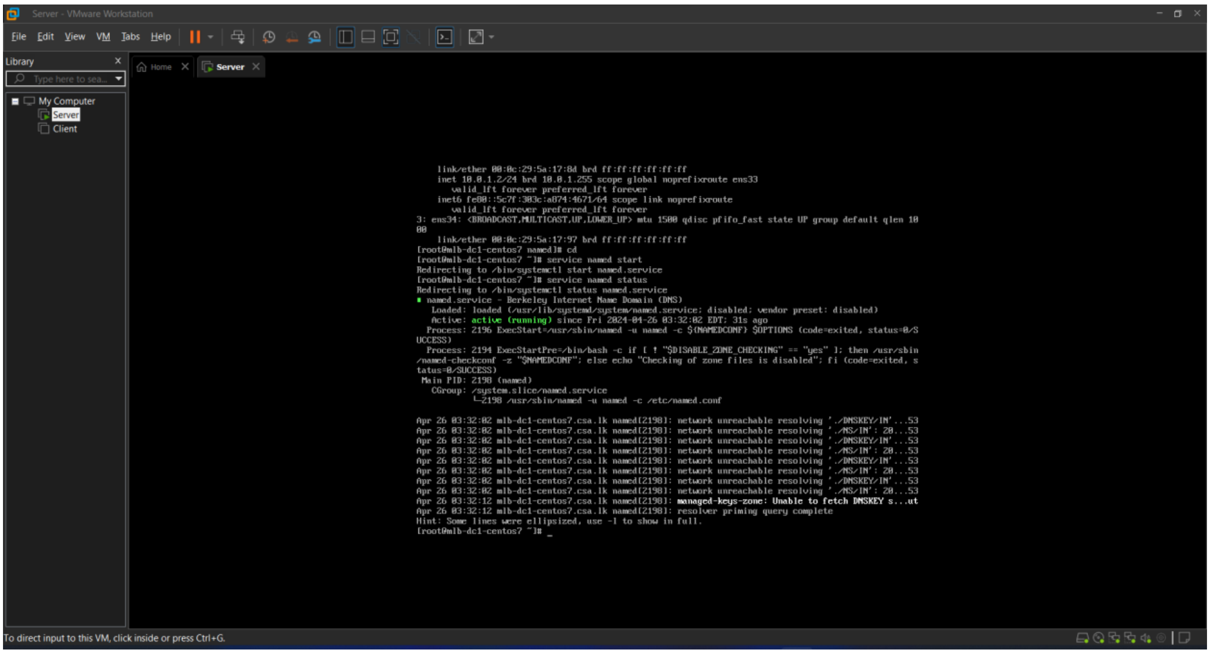

Figure 5:service 'named' start and check 'named' status

As same as to check dhcpd status, First start dhcpd by using [root@mlb-dc1-centos7]#service dhcpd start. Then check the status by using [root@mlb-dc1-centos7]#service dhcpd status

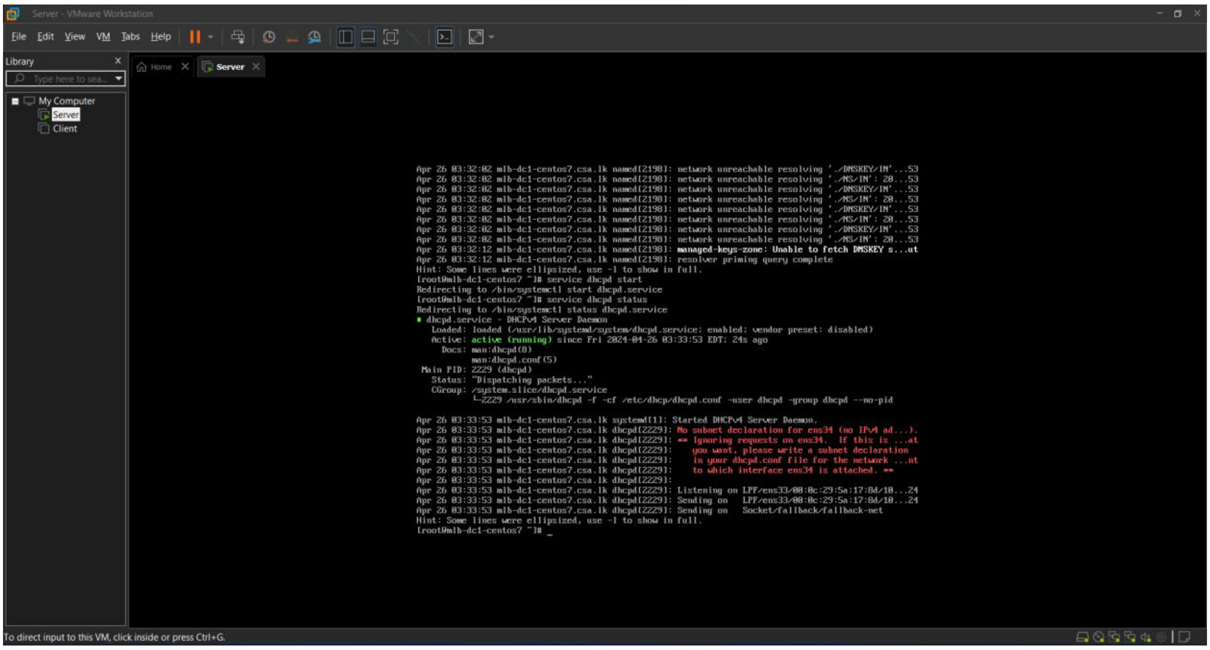

Figure 6:Service 'dhcp' start and check 'dhcp' status

Check network scripts by [root@mlb-dc1-centos7]#cd /etc/sysconfig/network-scripts

and add DNS for VMnet2

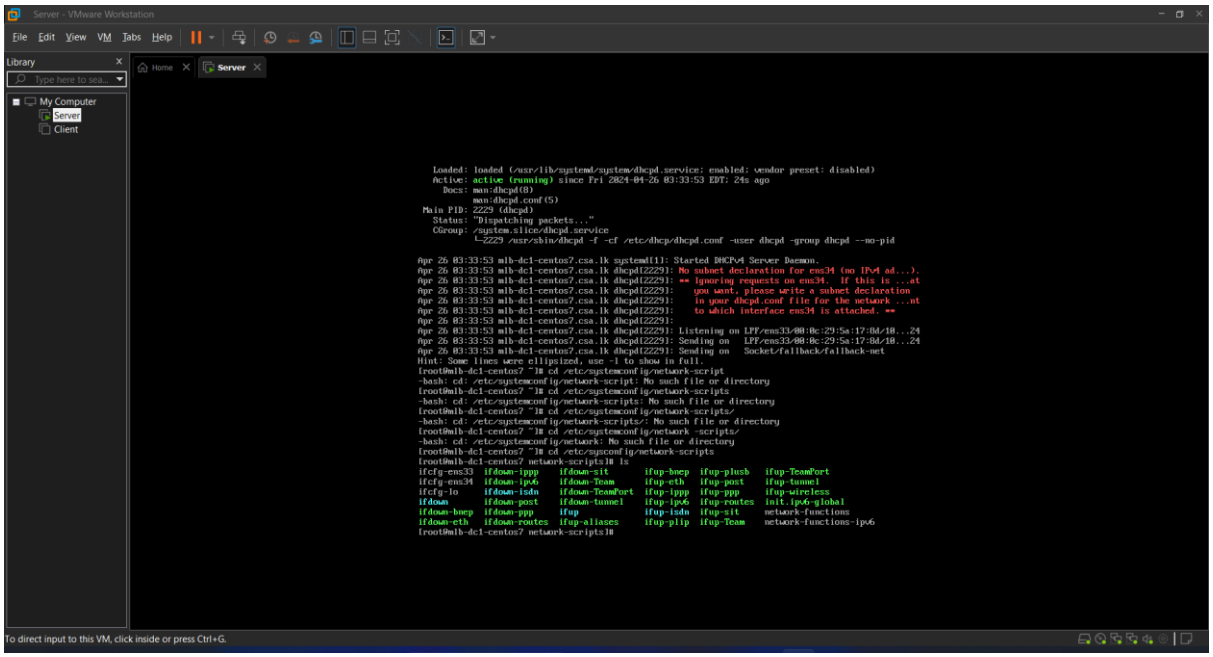

Figure 7:Network script check

Create a chatting server (chat.ndm.lk) and client program using C programming language capable of performing the following tasks.

a. Open Client Terminal.(Fedora)

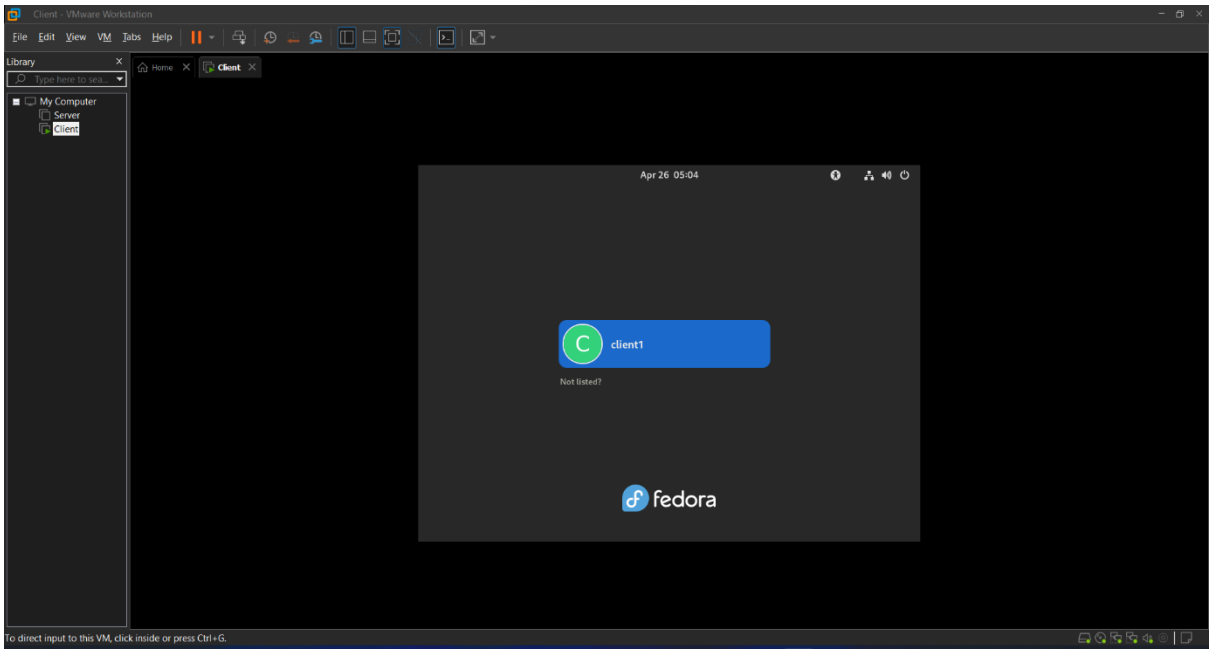

Figure 8: Open Fedora

b. Add client.c and server.c files in fedora and compile server.c in terminal by using “cc -o server server.c -pthread” command

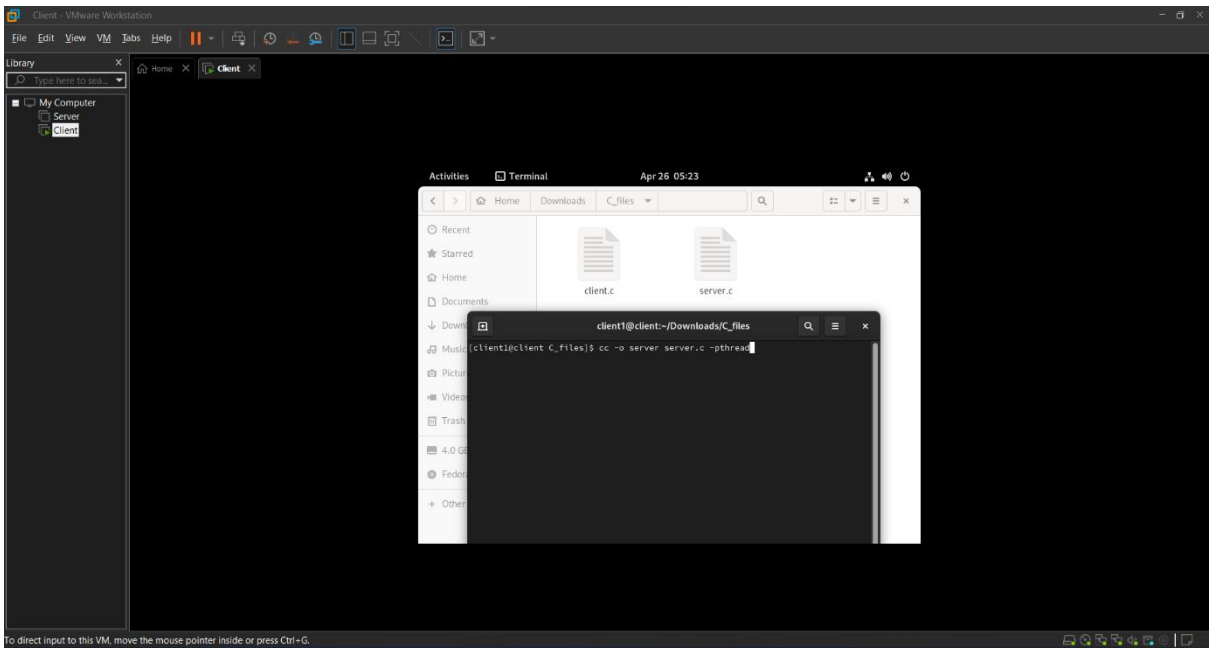

Figure 9:compile server.c

c. As same way, Compile client.c in terminal by using “cc -o client client.c -pthread” command

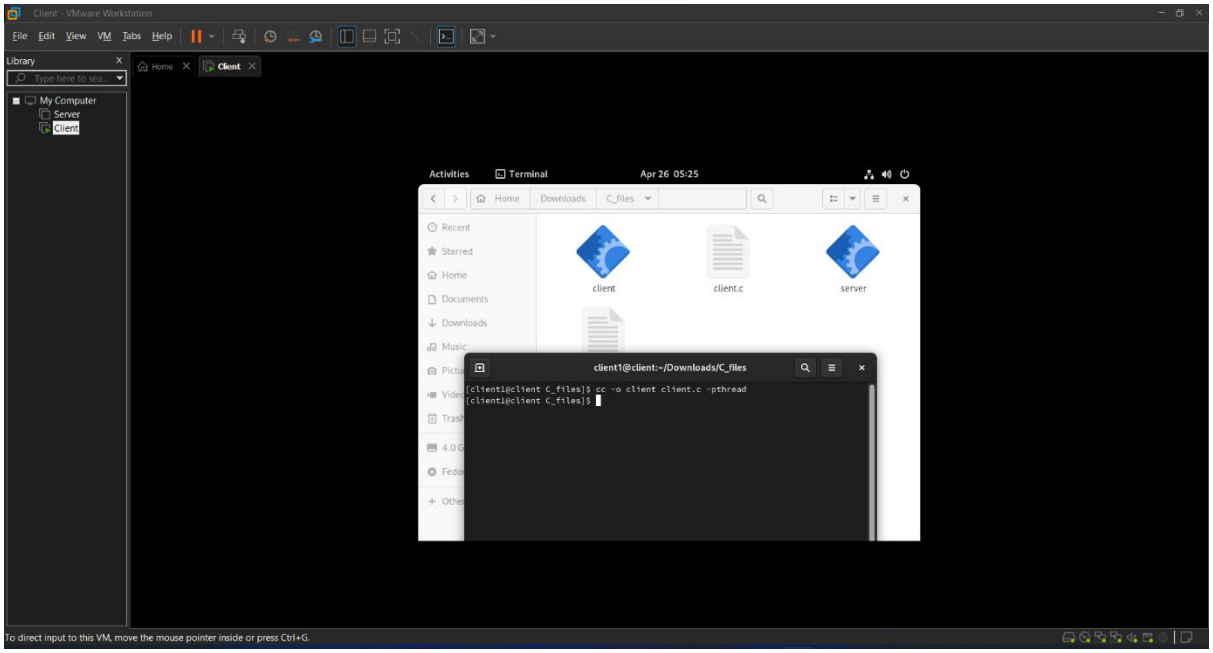

Figure 10:compile client.c

d. Run server.c using "./server"

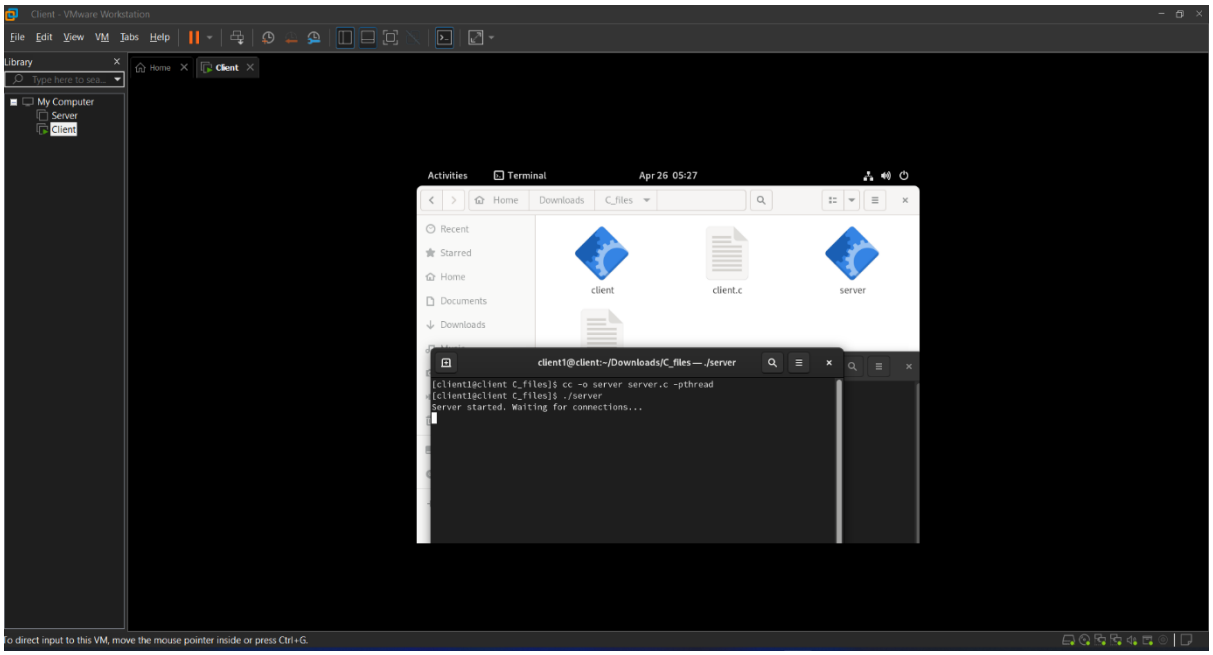

Figure 11:Start server

In here serever is started, but still no client folder executed, so server is waiting for connection.

e. Run cliecnt.c using "./client 127.0.0.1"

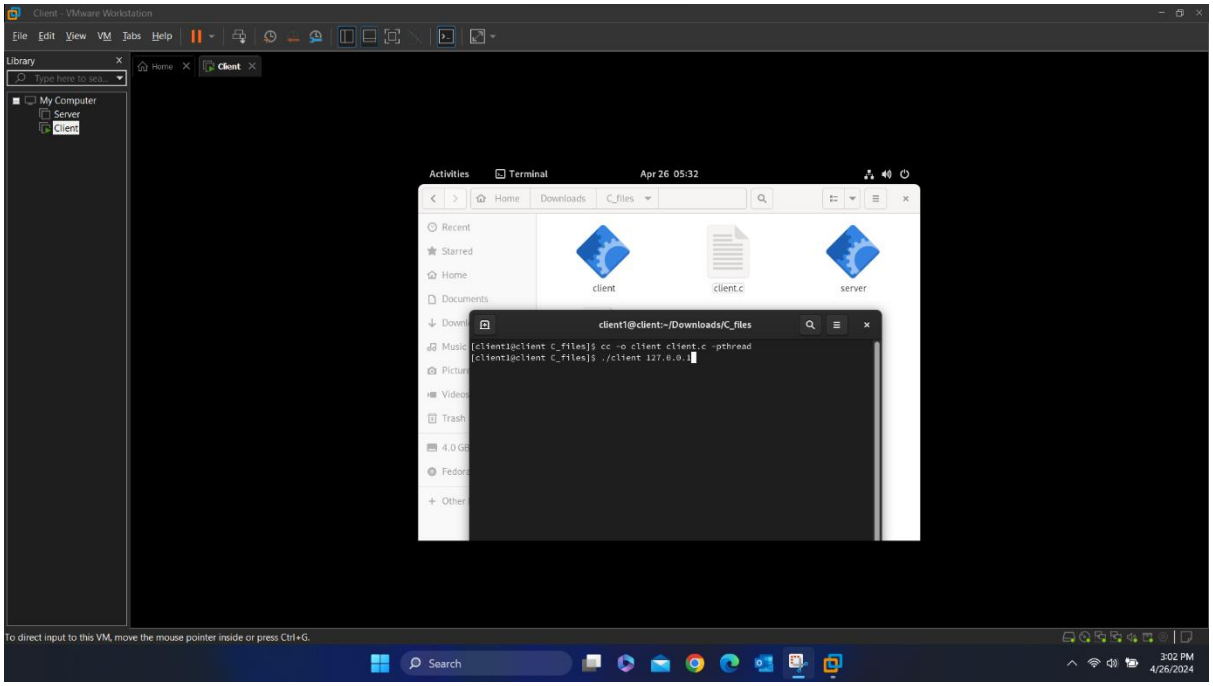

Figure 12:Start client

f. User is connected to server, and allow add user by adding user name and password (Add user1)

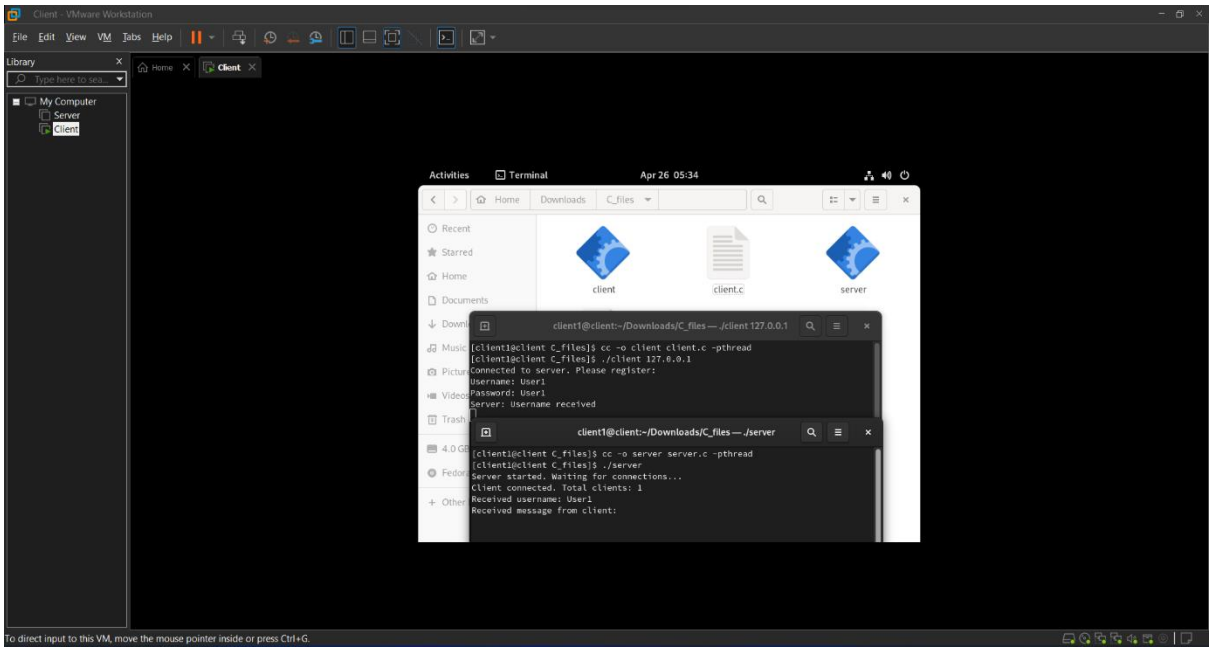

Figure 13:Add user by adding User name and password

g. As same as add user 2 by adding user name and password, then allow users to chat

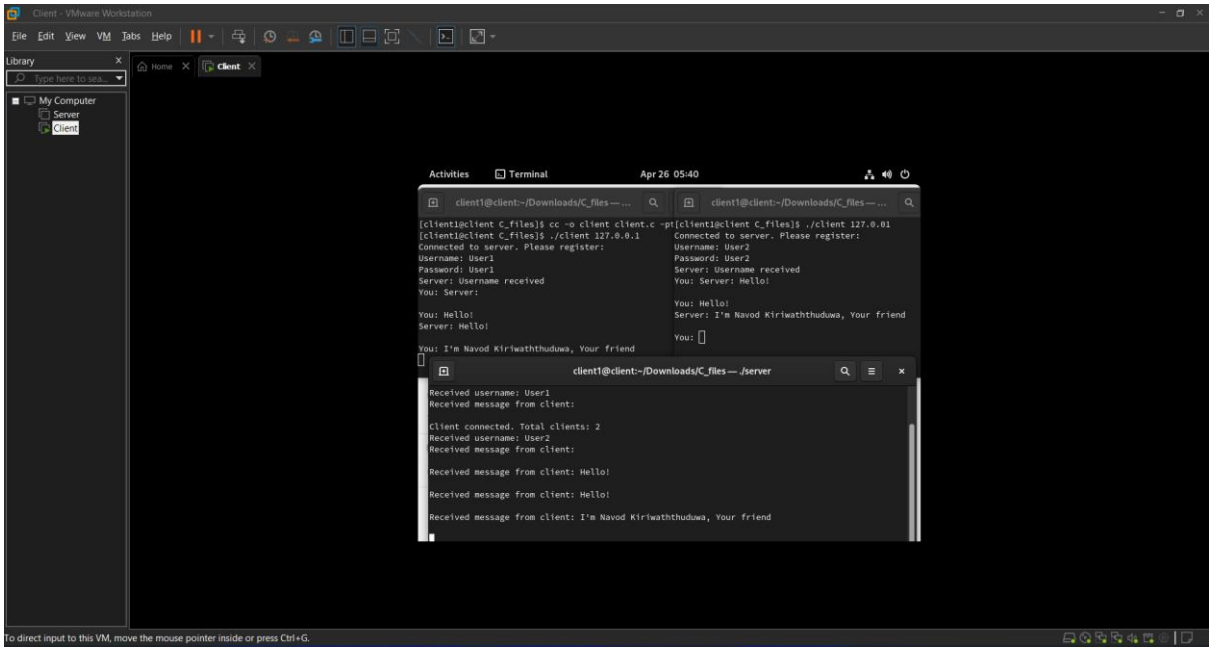

Figure 14:Start chat between users

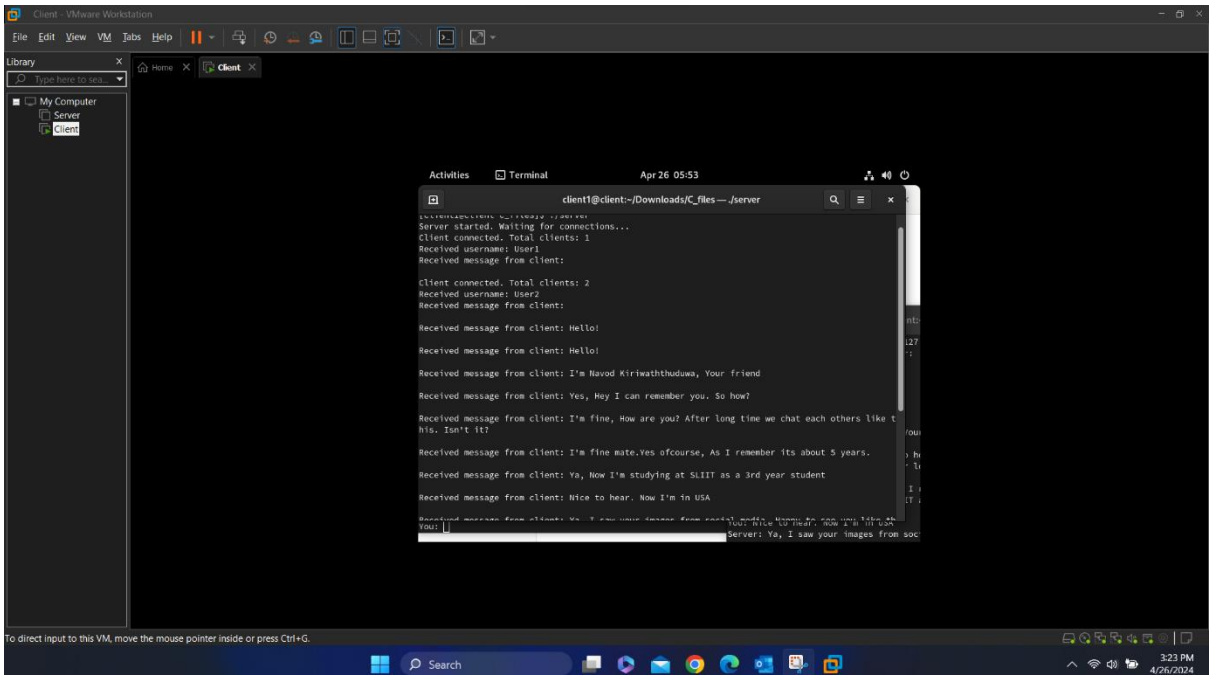

Figure 15:Chat between Users