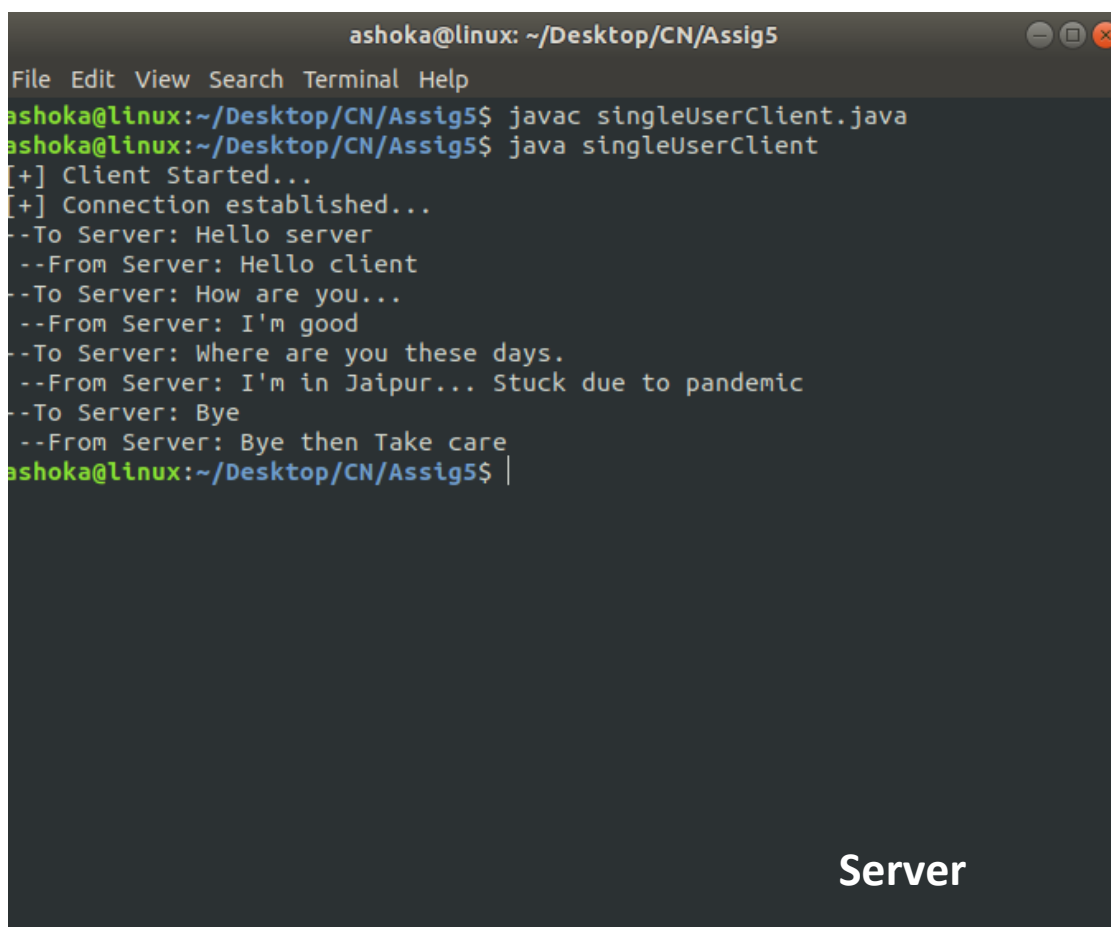**Department of Computer Engineering**
TE Computer-A (2020-21 Sem I)
Computer Networks
Practical Assignment B1

Q1. Write a program using TCP sockets for wired network to implement
      a. Peer to Peer Chat
      b. Multiuser Chat.

a. Peer to Peer Chat
Terminal output window


```
ashoka@linux: ~/Desktop/CN/Assig5

File  Edit  View  Search  Terminal  Help
ashoka@linux:~/Desktop/CN/Assig5$ javac singleUserClient.java
ashoka@linux:~/Desktop/CN/Assig5$ java singleUserClient
[+] Client Started...
[+] Connection established...
--To Server: Hello server
 --From Server: Hello client
--To Server: How are you...
 --From Server: I'm good
--To Server: Where are you these days.
 --From Server: I'm in Jaipur... Stuck due to pandemic
--To Server: Bye
 --From Server: Bye then Take care
ashoka@linux:~/Desktop/CN/Assig5$ |
```

Server

File Edit View Search Terminal Help

```
ashoka@linux:~/Desktop/CN/Assig5$ javac singleUserServer.java
ashoka@linux:~/Desktop/CN/Assig5$ java singleUserServer
Waiting for clients...
--From Client: Hello server
 --To Client: Hello client
--From Client: How are you...
 --To Client: I'm good
--From Client: Where are you these days.
 --To Client: I'm in Jaipur... Stuck due to pandemic
--From Client: Bye
 --To Client: Bye then Take care
ashoka@linux:~/Desktop/CN/Assig5$ |
```

Client

Wireshark windows

TCP STREAM

a. Multiuser Chat

Server

User1(Ashok)

```
                    ashoka@linux: ~/Desktop/CN/Assig5                    ⊖ ⊡ ⊗

 File  Edit  View  Search  Terminal  Help
ashoka@linux:~/Desktop/CN/Assig5$ javac Client_3317.java
ashoka@linux:~/Desktop/CN/Assig5$ java Client_3317
[+] Client Started...
[+] Connection established...
Enter username: Ram
Ashok is already online
Ashok
  --> Hello Ram
Ashok
  --> How are you
I'm good
Everything is fine
Syam is online
Syam
  --> How are you Ashok and Ram
Syam Left the chat
Ashok Left the chat
Leave                                              User2(Ram)
ashoka@linux:~/Desktop/CN/Assig5$ |
```

```
                    ashoka@linux: ~/Desktop/CN/Assig5                    ⊖ ⊡ ⊗

 File  Edit  View  Search  Terminal  Help
ashoka@linux:~/Desktop/CN/Assig5$ javac Client_3317.java
ashoka@linux:~/Desktop/CN/Assig5$ java Client_3317
[+] Client Started...
[+] Connection established...
Enter username: Syam
Ashok is already online
Ram is already online
How are you Ashok and Ram
Leave
ashoka@linux:~/Desktop/CN/Assig5$ |




                                                   User3(Syam)
```

Wireshark windows

TCP STREAM

Ram
Ashok is already online
Ashok: Hello Ram
Ashok: How are you
I'm good
Everything is fine
Syam is online
Syam: How are you Ashok and Ram
Syam Left the chat
Ashok Left the chat
Leave

4 client pkts, 7 server pkts, 4 turns.