

Practical 12

AIM:

b) Implement chat client server using TCP/UDP sockets.

ALGORITHM:

Chat Server

1. Start the Server:

- Create a socket (like a phone line).
- Bind it to a specific address and port (set your phone number).
- Listen for incoming connections (wait for calls).

2. Accept Connections:

- When a new client connects:
 - Add the client to a list of connected clients.
 - Start a new process to talk to this client (like talking on a different line).

3. Receive Messages:

- For each connected client:
 - Keep checking for new messages.
 - When a message is received, show it on the server screen.
 - Send this message to all other clients (share the message with everyone).

4. Handle Disconnections:

- If a client disconnects:
 - Remove that client from the list.
 - Stop talking to that client.

5. Keep Running:

- Repeat the process until you stop the server.

Chat Client

1. Connect to the Server:

- Create a socket (your phone).
- Connect it to the server's address and port (call the server).

2. Receive Messages:

- Start a process to listen for messages from the server:
 - Whenever a message arrives, show it on your screen.

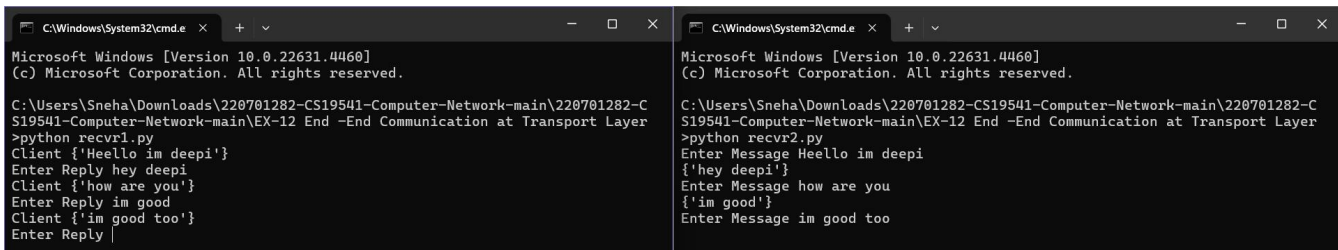
3. Send Messages:

- Keep asking the user for new messages:
 - If the user types a message, send it to the server.
 - If the user types 'exit', disconnect from the server and close the client.

4. Keep Running:

- Repeat the process until the user decides to exit.

OUTPUT:



```
C:\Windows\System32\cmd.exe x + v
Microsoft Windows [Version 10.0.22631.4460]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Sneha\Downloads\220701282-CS19541-Computer-Network-main\220701282-C
S19541-Computer-Network-main\EX-12 End -End Communication at Transport Layer
>python recvr1.py
Client {'Heello im deepi'}
Enter Reply hey deepi
Client {'how are you'}
Enter Reply im good
Client {'im good too'}
Enter Reply |

C:\Windows\System32\cmd.exe x + v
Microsoft Windows [Version 10.0.22631.4460]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Sneha\Downloads\220701282-CS19541-Computer-Network-main\220701282-C
S19541-Computer-Network-main\EX-12 End -End Communication at Transport Layer
>python recvr2.py
Enter Message Heello im deepi
{'hey deepi'}
Enter Message how are you
{'im good'}
Enter Message im good too
```