Exp 226 Implementation of chat client server using TCP/UDP sockets

Aim:-
To implement chat client server using the TCP and UDP sockets.

Server side Algorithm:-

```
import socket
server = socket.socket(socket.AF_INET,
                       socket.SOCK_STREAM)
server.bind(("localhost", 12346))
server.listen()
print("Server is waiting for connection...")
conn, addr = server.accept()
print(f"connected to {addr}")
while true:
    msg = conn.recv(1024).decode()
    if msg.lower() == 'bye':
        print("client disconnected.")
        break
    print(f"client: {msg}")
    reply = input("You")
    conn.send(reply.encode())
    if reply.lower() == 'bye':
        break
```

client close()

client side Algorithm:

import socket

client = socket.socket(socket.AF_INET,
socket.SOCK_STREAM)

client.connect(('localhost', 12346))

While True:

message = input("You : ")

client.send(message.encode())

if message.lower() == 'bye':

break

reply = client.recv(1024).decode()

print("Server: {reply}")

if reply.lower() == 'bye':

break

client.close()

Sample Input and Output :-

Server side :-

Server waiting for connection.

Connected to ('127.0.0.1', 59010)

client: Hi Server!

You : Hello client!

client: How a

You : I'm fi

client: bye

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you: Oh, s

Server: Hel

you: How

Server: I

you: bye

Result

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client : How are you?
You : I'm fine. thanks!
client : bye
client disconnected.
client side :-
you : Oh server!
server : Hellow client!
you : How are you?
server : I'm fine? thanks!
you : bye!

Result :-

Implementation of Chat client server using TCP/IP sockets have been completed successfully.