Ex: 12 (b)

# 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(1)
    print("server is waiting for
connections ... conn, addr = server.accept()
    print(f"Connected to padding}")
    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
     conn.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()
     printf(f" server: {reply}")
      if reply.lower() == bye" :
          break
     client close()
```

Server side :-

```
   server waiting for connection
   Connected to ('127.0.0.1', 59010)
   client : Hi server !
    you : Helloo client!
   client : How are you?
    You : I'm fine Thanks!
   client : Bye
   client disconnected
```

cliet side :

You : Hi server !

server : Hello cliet

You : How are you?

server : I'm fine thanks !

You : bye !

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Result :- Hence the equipment on implementing chat on cliet server using TCP / UDP server.