

2.10.25
2024
Implementation of echo client server.
using TCP/UDP sockets.

Aim! -

To implement an echo client server by
using TCP/UDP sockets.

Server-side Algorithm:

```
import socket
server_socket = socket.socket(socket.AF_INET,
                              socket.SOCK_STREAM)
server_socket.bind(('localhost', 12345))
server_socket.listen(1)
print("server is waiting for connection")
conn, addr = server_socket.accept()
print(f"connected to {addr}")
while True:
    data = conn.recv(1024).decode()
    if not data or data.lower() == 'bye':
        print("connection closed")
        break
    print(f"received from client: {data}")
    conn.send(data.encode())
conn.close()
```

Client-side Algorithm:

```
import socket
client_socket = socket.socket(socket.AF_INET,
                              socket.SOCK_STREAM)
client_socket.connect(('localhost', 12345))
while True:
```

```
    message = input("Enter message: ")
```


Client -> socket.send(message.encode())
if message.lower() == "bye":

break

data = client_socket.recv(1024).decode()
print(f'Echo from server: {data}')
client_socket.close()

Sample inputs and outputs:

client side

Enter message: Hello server

Echo from server: Hello server

Enter message: How are you?

Echo from server: How are you?

Enter message: Bye

Server side:

Server is waiting for connection.

connected to (127.0.0.1: 58944)

Received from client: Hello server.

Received from client: How are you?

connection closed.

Result:-

Hence the experimentation implementing
Echo on client server using the TCP/UDP

(Sockets)