TCP_UDP Writeup

Shitha N
1BM18CS149

1) TCP/IP:

a) Server side:

```
import socket
serverName = '127.0.0.1'
serverPort = 54321
serverSocket = socket.socket(socket.AF_INET,
                             socket.SOCK_STREAM)
serverSocket.bind((serverName, serverPort))
serverSocket.listen(1)
while True:
    print("Server waiting for connection...")
    clientsock, addr = serverSocket.accept()
    print("Client connected from", addr)
    while True:
        data = clientsock.recv(1024)
        if not data:
            break
        f1 = data.decode('utf-8')
        print(f'Recieved fname: {f1}')
        try:
            with open(f1, 'r') as f:
                data = f.read()
                data = bytes(data, 'utf-8')
                f.close()
        except:
            data = bytes(f'File not found', 'utf-8')
        clientsock.sendall(data)
    clientsock.close()
```


shitha

Shikha. N
1BM18CS149

b) Client side

```
import socket
ServerName = '127.0.0.1'
ServerPort = 54321
clientSock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
clientSock.connect((ServerName, ServerPORT))

while True:
    f1 = input('Enter filename:')
    if not f1:
        break
    clientSock.sendall(bytes(f1, 'UTF-8'))
    data = clientSock.recv(1024).decode('UTF-8')
    print(f'Recieved from server: {data}')

clientSock.close()
```

2) UDP

a) Serverside

```
import socket
serverName = '127.0.0.1'
port = 34567
Sock = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
Sock.bind((serverName, port))
```

```
while True
    data, addr = sock.recvfrom(1024)
    if not data:
        break
    fl = data.decode('utf-8')
    try:
        with open(fl,'r') as f:
            data = f.read()
            data = bytes(data, 'utf-8')
            f.close()
    except:
        data = bytes(f'File not found', 'utf-8')
    sock.sendto(data, addr)
    sock.close()
```

*) client side

```
import socket
Name = '127.0.0.1'
PORT = 34567
UDPSock = socket.socket(socket.AF_INET,
                        socket.SOCK_DGRAM)
UDPSock.connect((Name, PORT))
while True:
    filename = input('Enter filename')
    if not filename:
        break
    UDPSock.sendall(bytes(filename,'utf-8'))
    data = UDPSock.recv(1024).decode('utf-8')
    print(f'Recived from server: {data}')
UDPSock.close()
```


Shikha