TCP_SERVER

```
import socket
 # Defining Socket
host = '127.0.0.1'
port = 8888
totalclient = int(input('Enter number of clients: '))
sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
sock.bind((host, port))
sock.listen(totalclient)
# Establishing Connections
connections = []
print('Initiating clients')
for i in range(totalclient):
    conn, addr = sock.accept()
    connections.append(conn)
    print('Connected with client', i+1)


fileno = 0
for idx, conn in enumerate(connections, 1):
    # Receiving File Data
    data = conn.recv(1024)
    if not data:
        continue
    # Creating a new file at server end and writing the data
    filename = 'output' + str(fileno) + '.txt'
    fileno += 1
    with open(filename, "wb") as fo:
        fo.write(data)
```

```
    print()
    print('Receiving file from client', idx)
    print()
    print('Received successfully! New filename is:', filename)

# Closing all Connections
for conn in connections:
    conn.close()
```

TCP_Client

```
import socket


host = '127.0.0.1'
port = 8888
sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
# Connecting with Server
sock.connect((host, port))


while True:
    filename = input('Input filename you want to send: ')
    try:
        # Reading file and sending data to server
        with open(filename, "rb") as fi:
            data = fi.read()
            if not data:
                break
            sock.sendall(data)
            print("File sent successfully!")
            break  # Assuming one file transfer per client connection


    except FileNotFoundError:
        print('File not found! Please enter a valid filename')
    except Exception as e:
        print("Error:", e)
    finally:
        sock.close()
```

OUTPUT:

Enter number of clients: 1

Initiating clients

Connected with client 1

Receiving file from client 1

Received successfully! New filename is: output0.txt

ln[1]: runfile('D:/MC/tcp_client.py', wdir='D:/MC')

Input filename you want to send: first_file.txt

File sent successfully!

Enter number of clients: 2

Initiating clients

Connected with client 1

Connected with client 2

Receiving file from client 1

Received successfully! New filename is: output0.txt

Receiving file from client 2

Received successfully! New filename is: output1.txt

ln[1]: runfile('D:/MC/tcp_client.py', wdir='D:/MC')

Input filename you want to send: first_file.txt

File sent successfully!

ln[2]: runfile('D:/MC/tcp_client.py', wdir='D:/MC')

Input filename you want to send: second_file.txt

File sent successfully!