EXPERIMENT - 15

Aim : Using TCP/IP sockets, write a client-server program to make client sending the file name and the server to send back the contents of the requested file if present.

Client.py

```
from socket import *
serverName = '127.0.0.1'
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_STREAM)
clientSocket.connect((serverName, serverPort))
sentence = input("\nEnter file name : ")

clientSocket.send(sentence.encode())
filecontents = clientSocket.recv(1024).decode()
print("\nFrom Server : \n")
print(filecontents)
clientSocket.close()
```

```
server.py
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket (AF_INET, SOCK_STREAM)
serverSocket.bind((serverName, serverPort))
serverSocket.listen(1)
while 1:
    print ("The server is ready to receive")
    connectionSocket, addr = serverSocket.accept();
    sentence = connectionSocket.recv(1024).decode();
    file = open(sentence, 'r')
    l = file.read(1024)
    connectionSocket.send(l.encode())
    print ("\n Sent contents " + sentence + "to " + addr)
    file.close()
    connectionSocket.close()
```
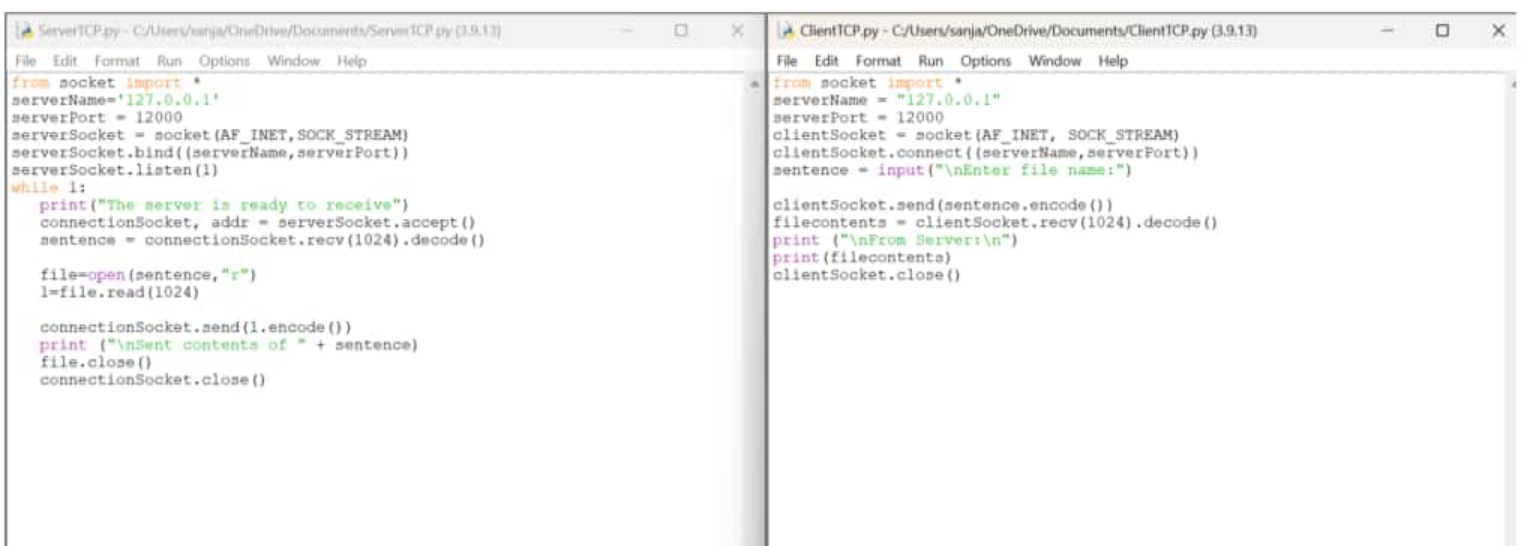
OUTPUT:

Client   Server

enter file name : server.py   Sent contents g: serve.p
Reply from server
    Contents g: server.py

ServerTCP.py - C:/Users/sanja/OneDrive/Documents/ServerTCP.py (3.9.13)

File Edit Format Run Options Window Help

```python
from socket import *
serverName='127.0.0.1'
serverPort = 12000
serverSocket = socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("The server is ready to receive")
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024).decode()

    file=open(sentence,"r")
    l=file.read(1024)

    connectionSocket.send(l.encode())
    print ("\nSent contents of " + sentence)
    file.close()
    connectionSocket.close()
```

ClientTCP.py - C:/Users/sanja/OneDrive/Documents/ClientTCP.py (3.9.13)

File Edit Format Run Options Window Help

```python
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_STREAM)
clientSocket.connect((serverName,serverPort))
sentence = input("\nEnter file name:")

clientSocket.send(sentence.encode())
filecontents = clientSocket.recv(1024).decode()
print ("\nFrom Server:\n")
print(filecontents)
clientSocket.close()
```

Left Window — IDLE Shell 3.9.13 (Server)

```
IDLE Shell 3.9.13
File  Edit  Shell  Debug  Options  Window  Help
Python 3.9.13 (tags/v3.9.13:6de2ca5, May 17 2022, 16:36:42) [MSC v.1929 64 b
it (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/sanja/OneDrive/Documents/ServerTCP.py ========
===
The server is ready to receive
The server is ready to receive
The server is ready to receive

========== RESTART: C:/Users/sanja/OneDrive/Documents/ServerTCP.py ========
===
The server is ready to receive

Sent contents of ServerTCP.py
The server is ready to receive
```

Right Window — IDLE Shell 3.9.13 (Client)

```
IDLE Shell 3.9.13
File  Edit  Shell  Debug  Options  Window  Help
the target machine actively refused it
>>>
========== RESTART: C:/Users/sanja/OneDrive/Documents/ClientTCP.py =========

Enter file name:ServerTCP.py

========== RESTART: C:/Users/sanja/OneDrive/Documents/ClientTCP.py =========

Enter file name:ServerTCP.py

========== RESTART: C:/Users/sanja/OneDrive/Documents/ClientTCP.py =========

Enter file name:
========== RESTART: C:/Users/sanja/OneDrive/Documents/ClientTCP.py =========

Enter file name:ServerTCP.py

From Server:

from socket import *
serverName='127.0.0.1'
serverPort = 12000
serverSocket = socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("The server is ready to receive")
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024).decode()

    file=open(sentence,"r")
    l=file.read(1024)

    connectionSocket.send(l.encode())
    print ("\nSent contents of " + sentence)
    file.close()
    connectionSocket.close()

>>>
```