Experiment - 15.

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

Solution:

Client TCP.py

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

clientSocket.send(sentence.encode())
filecontents = clientSocket.recv(1024).decode()
print('\n From server: \n')
print(filecontents)
clientSocket.close()
```

Server TCP.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_STREAM)
serverSocket.listen(1)
while 1:
    print("The server is ready to recieve")
```

```
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 of ' + sentence)
file.close()
connectionSocket.close()
```

Output:

Server side:

The server is ready to recieve

client side:

Enter file name: ServerTCP.py

From Server:

from socket import:

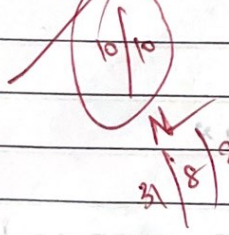
:

server side: (The code above of serverTCP.py is printed)

The server is ready to recieve

Sent contents of ServerTCP.py

The server is ready to recieve.



IDLE Shell 3.11.2

File Edit Shell Debug Options Window Help

```
Python 3.11.2 (tags/v3.11.2:878ead1, Feb  7 2023, 16:38:35) [MSC v.1934 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: F:/CN/cycle2/ServerTCP.py ==========
The server is ready to receive

Sent contents ofServerTCP.py
The server is ready to receive
```

IDLE Shell 3.11.2

File Edit Shell Debug Options Window Help

```
Python 3.11.2 (tags/v3.11.2:878ead1, Feb  7 2023, 16:38:35) [MSC v.1934 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: F:/CN/cycle2/ClientTCP.py ==========

Enter the file name: ServerTCP.py

From sever:

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()
```