24/8/23

Experiment 3

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

Solution:

① clientTCP.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()
```

② ServerTCP.py

```
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('\n Sent contents of ' + sentence)
file.close()
connectionSocket.close()
```

Output:

* when you run serverTCP.py

The server is ready to receive

when you run clientTCP.py

Enter file name: serverTCP.py

from server:

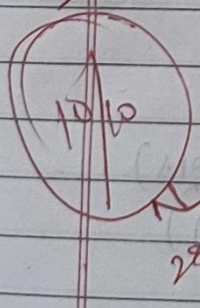
(The files from serverTCP.py will be copied and displayed here)

* In serverTCP.py

The server is ready to receive

Sent contents of serverTCP.py

The server is ready to receive.



CODE:

ClientTCP.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()

ServerTCP.py 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()

OUTPUT: