

COMPUTER NETWORKS

LAB OBSERVATION Shashank M S – 1BM21CS201

Question: 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.

Code:

Server.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)

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

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()
```

Output:

```
file:///C:/Users/Admin/Desktop/IBM21C5047/clienttop.py [3.10.8]
File Edit Formate Run Options Window Help
from socket import *
serverName="127.0.0.1"
serverPort=1024
clientSocket = socket(AF_INET,SOCK_STREAM)
clientSocket.connect((serverName,serverPort))
print("Connected to Server")
sentence="Python 3.10.8 ([tags:v3.10.8:main:f517, Oct 11 2022, 16:50:30] [MSC v.1933 64 bit | AMD64]) on win32"
clientSocket.send(sentence.encode())
clientSocket.close()

Enter file name: servertop.py
From Server:
from socket import *
serverName="127.0.0.1"
serverPort=1024
serverSocket=socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("The Server is ready to receive")
    connectionSocket,address=serverSocket.accept()
    sentence=connectionSocket.recv(1024).decode()
    file=open(sentence,"w")
    file.write(sentence)
    file.close()
    connectionSocket.send(sentence.encode())
    print("Content of "+sentence)
    file.close()
    connectionSocket.close()

>>> |
```

```
file:///C:/Users/Admin/Desktop/IBM21C5047/servertop.py [3.10.8]
File Edit Formate Run Options Window Help
from socket import *
serverName="127.0.0.1"
serverPort=1024
serverSocket=socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("The Server is ready to receive")
    connectionSocket,address=serverSocket.accept()
    sentence=connectionSocket.recv(1024).decode()
    file=open(sentence,"w")
    file.write(sentence)
    file.close()
    connectionSocket.close()

>>> |
```