

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:

```
client.py - C:\Users\Admin\Desktop\IBM1C8047\client.py (3.10.8)
File Edit Format Run Options Window Help
from socket import *
serverName='127.0.0.1'
serverPort=12000
clientSocket=socket(AF_INET,SOCK_STREAM)
clientSocket.connect((serverName,serverPort))
sentence=b''
while True:
    data=clientSocket.recv(1024)
    if not data:
        break
    sentence+=data
    print('Received: ',sentence)
    clientSocket.close()

server.py - C:\Users\Admin\Desktop\IBM1C8047\server.py (3.10.8)
File Edit Format Run Options Window Help
from socket import *
serverName='127.0.0.1'
serverPort=12000
serverSocket=socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while True:
    print('This Server is ready to receive')
    connectionSocket,addr=serverSocket.accept()
    sentence=connectionSocket.recv(1024).decode()
    file=open(sentence,'r')
    if file.read(1024):
        connectionSocket.sendall(sentence)
        print('Sent contents of ' +sentence)
        file.close()
        connectionSocket.close()

Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> python client.py
Restart: C:\Users\Admin\Desktop\IBM1C8047\client.py
>>>

Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> python server.py
Restart: C:\Users\Admin\Desktop\IBM1C8047\server.py
>>>

Sent contents of server.py
Traceback (most recent call last):
  File "C:\Users\Admin\Desktop\IBM1C8047\server.py", line 17, in <module>
    file.close()
TypeError: _socket.close() takes exactly one argument (0 given)
>>>
```