

LAB OBSERVATION

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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)

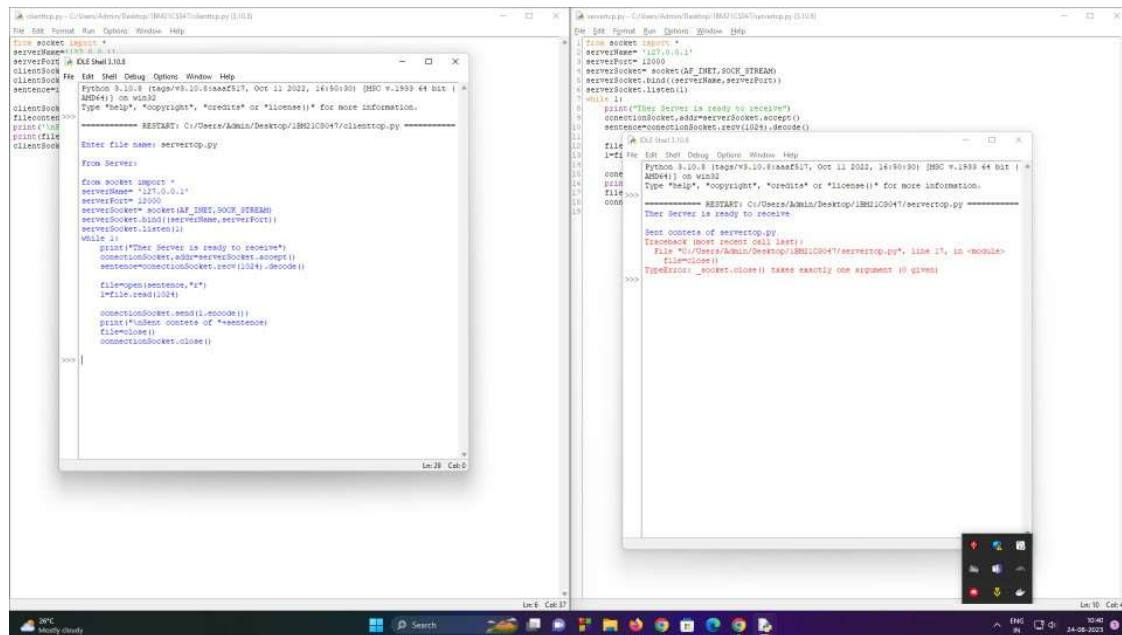
connectionSocket.send(l.encode()
) print("\nSent contents of
"+sentence)file=close()
connectionSocket.close()
```

Client.py

```
from socket import *
serverName='127.0.0.
1'serverPort=12000
clientSocket=socket(AF_INET,
SOCK_STREAM)
clientSocket.connect((serverName,serverPo
rt)
) sentence=input("\nEnter file name: ")

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

Output:



The image shows two side-by-side Python IDE windows. The left window, titled 'server.py', contains the code for a simple socket server. The right window, titled 'client.py', contains the code for a simple socket client. Both windows show the execution output in a separate pane at the bottom.

```
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('This Server is ready to receive')
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024).decode()

    file = open(sentence, 'r')
    i = file.read(1024)

    connectionSocket.send(i.encode())
    print('***** contents of ' + sentence)
    file.close()
    connectionSocket.close()

client.py
from socket import *
clientName = '127.0.0.1'
clientPort = 12000
clientSocket = socket(AF_INET, SOCK_STREAM)
clientSocket.connect((serverName, serverPort))

while 1:
    print('This Client is ready to receive')
    sentence = clientSocket.recv(1024).decode()

    file = open(sentence, 'w')
    i = file.read(1024)

    file.close()
    clientSocket.close()
```

The output of the server.py window shows the server starting and receiving a connection from the client. The output of the client.py window shows the client sending a file named 'server.py' to the server.