

LAB PROGRAM – 15

Q) 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.

Procedure :

COMPASS
Date: 21/02/23

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Experiment - 15

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:

clientTCP.py

```
from socket import *  
serverName = '127.0.0.1'  
serverPort = 12003  
clientSocket = socket(AF_INET, SOCK_STREAM)  
clientSocket.connect((serverName, serverPort))  
sentence = input("Enter file name: ")  
  
clientSocket.send(sentence.encode())  
filecontents = clientSocket.recv(1024).decode()  
print("\n From Server :\n")  
print(filecontents)  
clientSocket.close()
```

ServerTCP.py

```
from socket import *  
serverName = '127.0.0.1'  
serverPort = 12003  
serverSocket = socket(AF_INET, SOCK_STREAM)  
serverSocket.bind((serverName, serverPort))  
serverSocket.listen(4)
```

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

OUTPUT:

Server Side:

The Server is Ready to receive

client Side:

Enter file name: ServerTCP.py

From Server:

from socket import *

:

(Code under ServerTCP.py is printed as written above)

Server Side:

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()
```

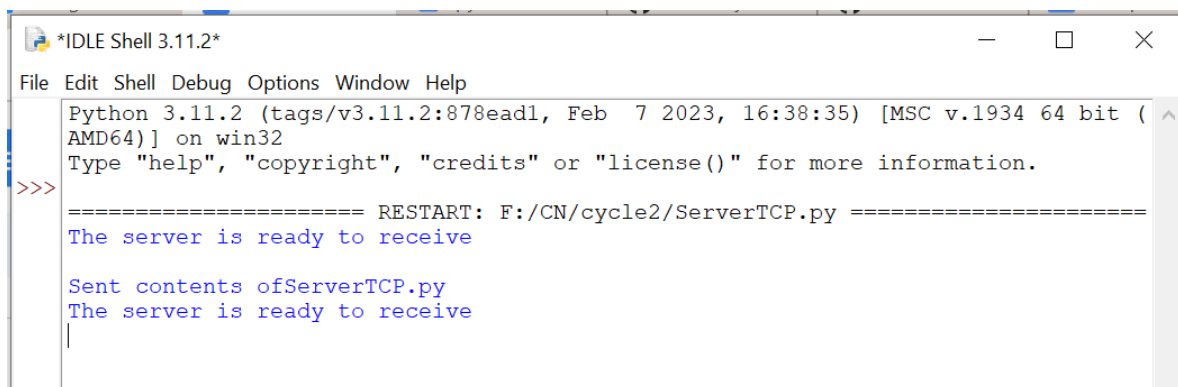
ServerTCP.py

```
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("Server is ready to recieve")  
connectionSocket , address = 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()
```

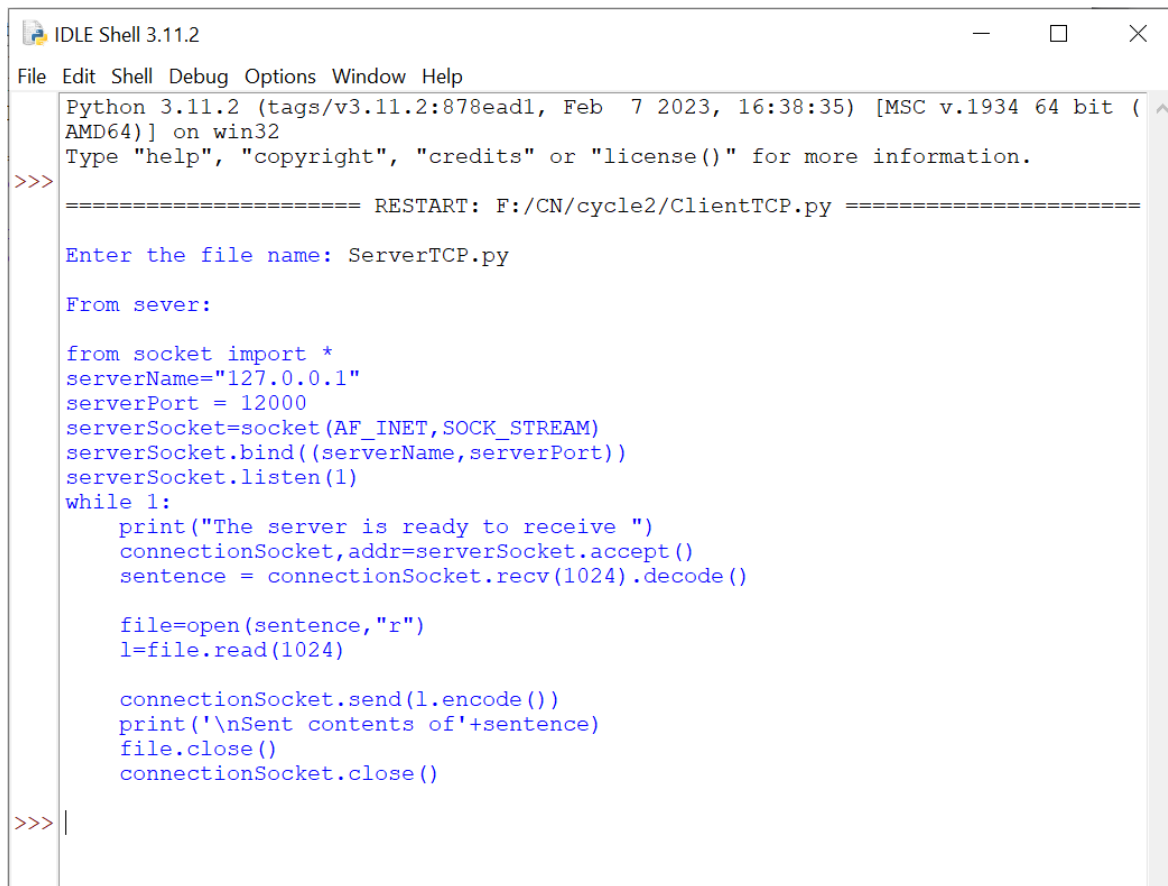
Output :

Server Instance :



```
*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  
|
```

Client Instance :



```
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()
>>> |
```