

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.

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.

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")
    d = file.read(1024)
    connectionSocket.send(d.encode())
    print("\nSend contents of " + sentence)
    file.close()
    connectionSocket.close()
```

Sender output:

The server is ready to receive
Sent contents of servertcp.py
The server is ready to receive

Client output:

Enter file name: servertcp.py

From server:

```
from socket import *
serverName = '127.0.0.1'
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_STREAM)
serverSocket.bind((serverName, serverPort))
serverSocket.listen(1)

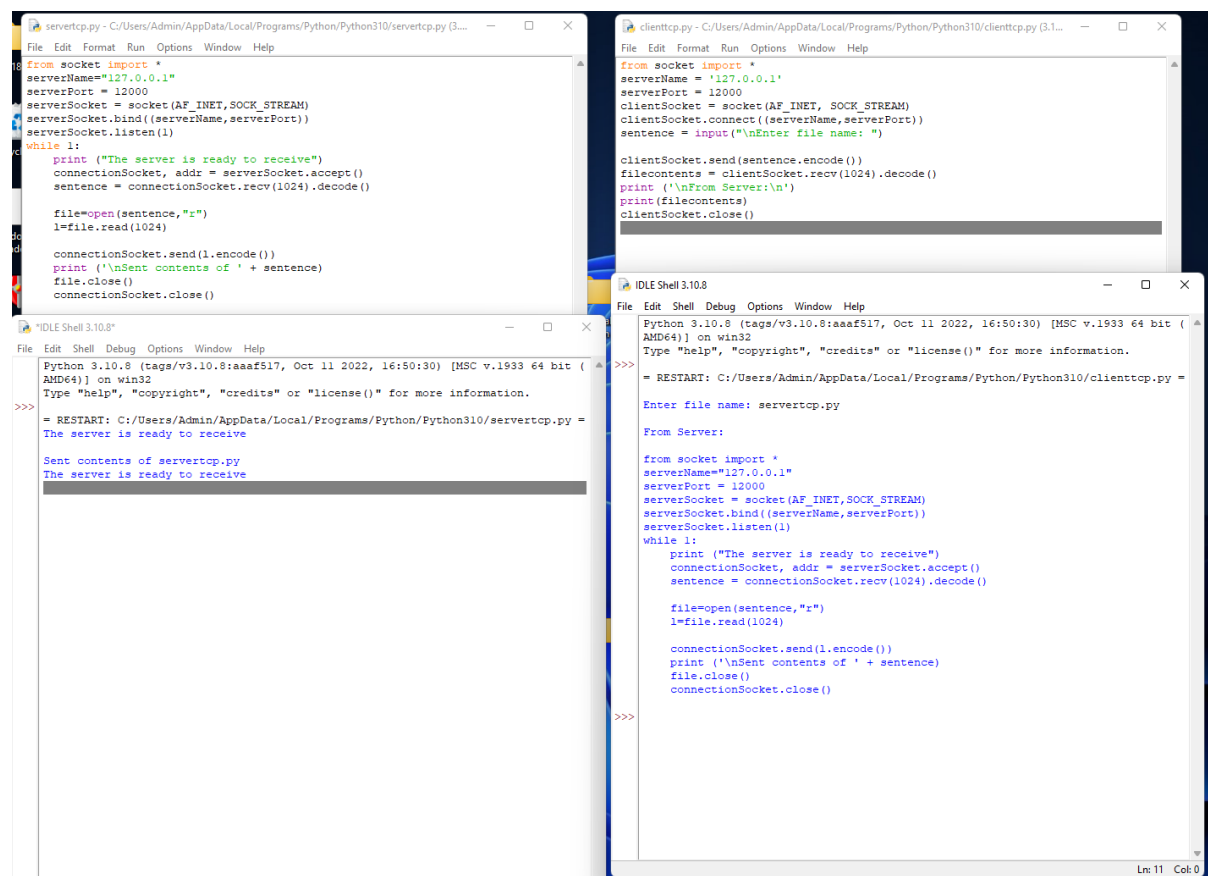
while 1:
    print("The server is ready to receive")
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024).decode()
    file = open(sentence, 'r')
    d = file.read(1024)
    connectionSocket.send(d.encode())
    print("In sent contents of " + sentence)
    file.close()
    connectionSocket.close()
```

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Procedure:

- Run the servertcp.py
- Then run the clienttcp.py
- enter the file name of server
- Server file contents will be displayed.

Output:



The image displays three windows from a Python IDE (Python 3.10.8) showing the implementation and execution of a simple TCP server and client.

Top Left Window: 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()
```

Top Right Window: 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()
```

Bottom Left Window: IDLE Shell 3.10.8

```
>>>
= RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python310/servertcp.py =
The server is ready to receive
Sent contents of servertcp.py
The server is ready to receive
```

Bottom Right Window: IDLE Shell 3.10.8

```
>>>
= RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python310/clienttcp.py =
Enter file name: servertcp.py

From Server:

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()

>>>
```