Experiment - 13

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.

Client program:

clientTCP.py

```
from socket import *
serverName = '127.0.0.1'
serverport = 12000
clientSocket = socket (AF_INET, SOCK_STREAM)
clientSocket.connect ((serverName, serverPort))
sentence = input ("\n Enter file name : ")

clientSocket.send (sentence.encode())
filecontents = clientSocket.recv (1024).decode()
print ("\n From Server : \n").

print (filecontents)
clientSocket.close ()
```

Server program :

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 ("\n Sent Contents of ' + sentence)
   file.close ()
   connectionSocket.close()
```

Output

Server side:

```
The server is ready to receive
```

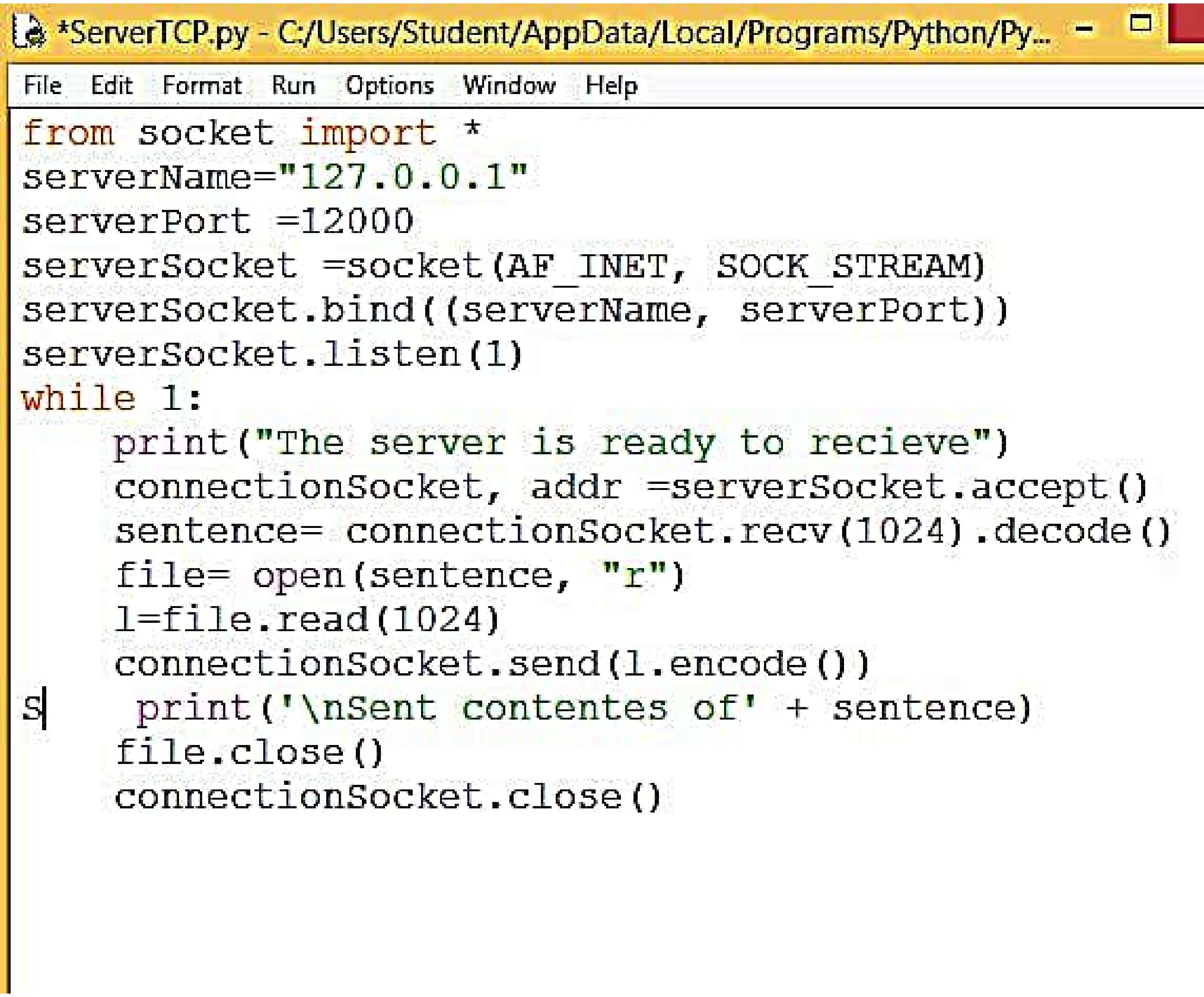
client side:

```
Enter file name: ServerTCP.py
From server:
from Socket import*
:
```

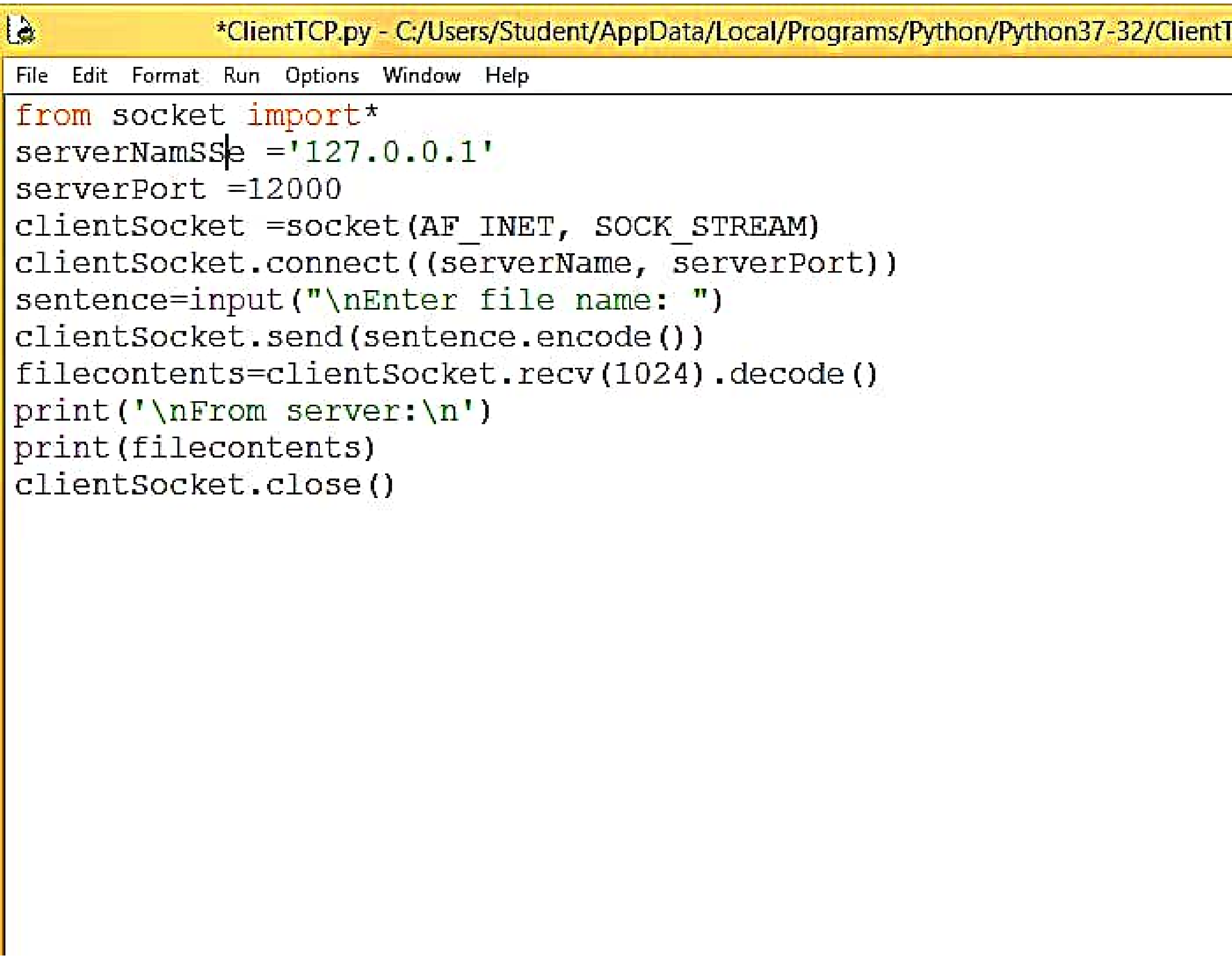
(serverTCP.py is printed)

server side:

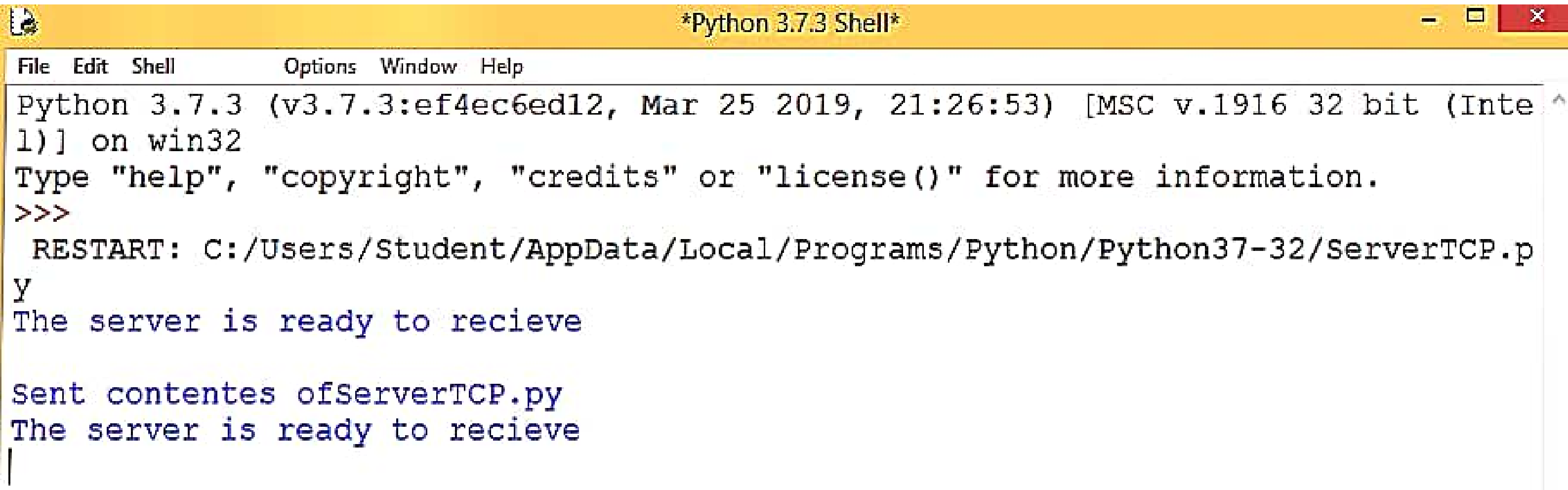
```
The server is ready to receive
sent contents of serverTCP.py
The server is ready to receive.
```


*ServerTCP.py - C:/Users/Student/AppData/Local/Programs/Python/Py...
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 1:
    print("The server is ready to recieve")
    connectionSocket, addr =serverSocket.accept()
    sentence= connectionSocket.recv(1024).decode()
    file= open(sentence, "r")
    l=file.read(1024)
    connectionSocket.send(l.encode())
S    print('\nSent contentes of' + sentence)
    file.close()
    connectionSocket.close()
```

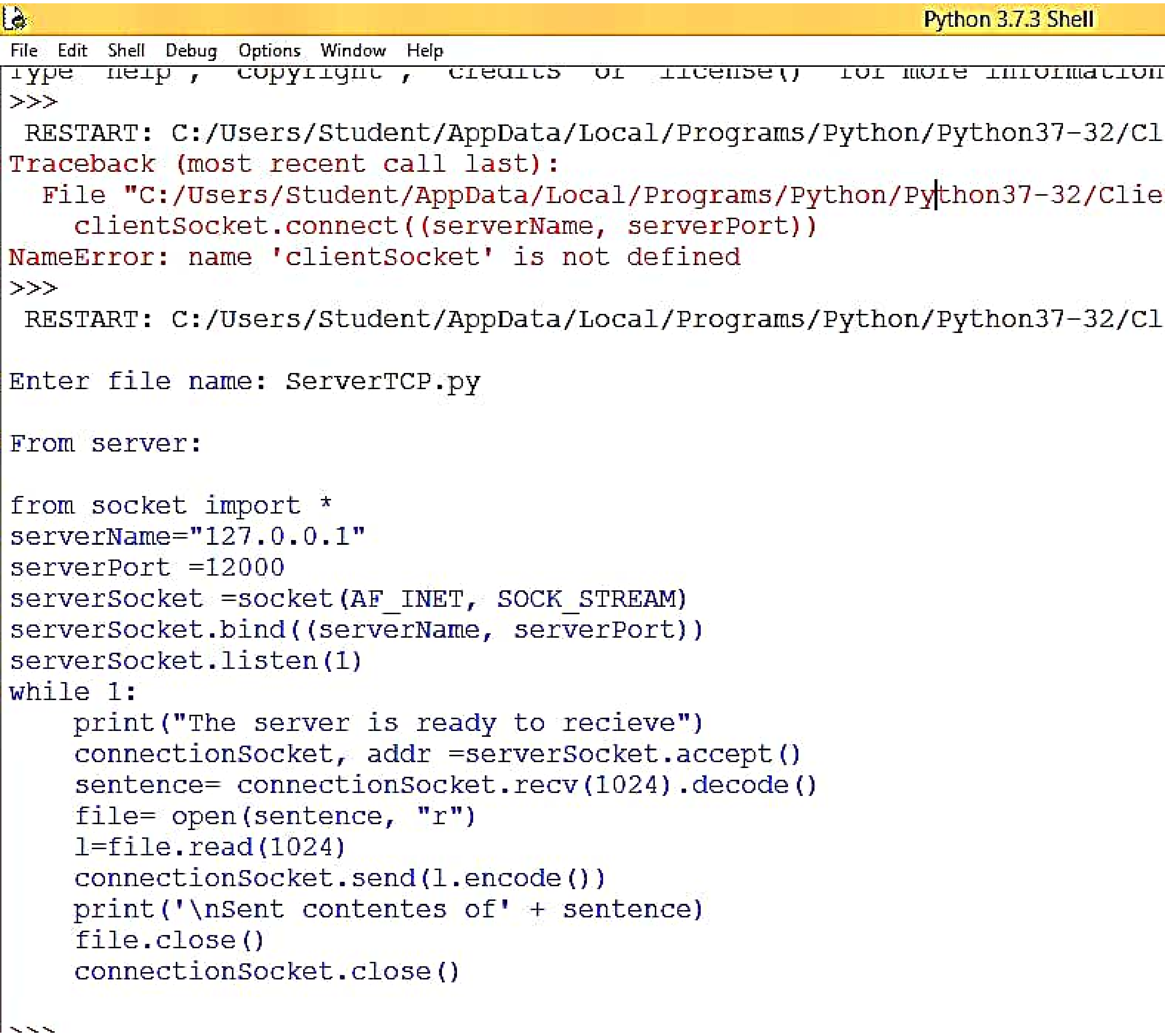

*ClientTCP.py - C:/Users/Student/AppData/Local/Programs/Python/Python37-32/ClientT
File Edit Format Run Options Window Help

```
from socket import*
serverNamSSe ='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()
```



```
Python 3.7.3 (v3.7.3:ef4ec6ed12, Mar 25 2019, 21:26:53) [MSC v.1916 32 bit (Inte
l)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
 RESTART: C:/Users/Student/AppData/Local/Programs/Python/Python37-32/ServerTCP.p
y
The server is ready to recieve

Sent contentes ofServerTCP.py
The server is ready to recieve
```



```
Type "help", "copyright", "credits" or "license()" for more information
>>>
 RESTART: C:/Users/Student/AppData/Local/Programs/Python/Python37-32/Cl
Traceback (most recent call last):
  File "C:/Users/Student/AppData/Local/Programs/Python/Python37-32/Clie
    clientSocket.connect((serverName, serverPort))
NameError: name 'clientSocket' is not defined
>>>
 RESTART: C:/Users/Student/AppData/Local/Programs/Python/Python37-32/Cl

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 recieve")
    connectionSocket, addr =serverSocket.accept()
    sentence= connectionSocket.recv(1024).decode()
    file= open(sentence, "r")
    l=file.read(1024)
    connectionSocket.send(l.encode())
    print('\nSent contentes of' + sentence)
    file.close()
    connectionSocket.close()

>>>
```