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.

Code:

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()
```

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()
```

Output:

ClientTCP.py ServerTCP.py

TCP > ServerTCP.py > ...

```
1  from socket import *
2  serverName="127.0.0.1"
3  serverPort = 12000
4  serverSocket = socket(AF_INET,SOCK_STREAM)
5  serverSocket.bind((serverName,serverPort))
6  serverSocket.listen(1)
7  while 1:
8      print ("The server is ready to receive")
9      connectionSocket, addr = serverSocket.accept()
10     sentence = connectionSocket.recv(1024).decode()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\jyothika\CN> & C:/Users/Jyothika/AppData/Local/Programs/Python/Python311/python.exe d:/jyothika/CN/TCP/ServerTCP.py
The server is ready to receive
```

ClientTCP.py

TCP > ClientTCP.py > ...

```
1  from socket import *
2  serverName = "127.0.0.1"
3  serverPort = 12000
4
5  clientSocket = socket(AF_INET, SOCK_STREAM)
6  clientSocket.connect((serverName,serverPort))
7  sentence = input("\nEnter file name: ")
8  clientSocket.send(sentence.encode())
9  filecontents = clientSocket.recv(1024).decode()
10 print ('\nFrom Server:\n')
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\jyothika\CN> & C:/Users/Jyothika/AppData/Local/Programs/Python/Python311/python.exe d:/jyothika/CN/TCP/ClientTCP.py

Enter file name: d:\jyothika\CN\TCP\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()
```

ClientTCP.py ServerTCP.py

TCP > ClientTCP.py > ...

```python
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')
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS D:\jyothika\CN> & C:/Users/Jyothika/AppData/Local/Programs/Python/Python311/python.exe d:/jyothika/CN/TCP/ServerTCP.py
The server is ready to receive

Sent contents of d:\jyothika\CN\TCP\ClientTCP.py
The server is ready to receive
```