24-8-23

Q) Using TCP/IP sockets, write a client-server program to make a client making a client sending a file name and the server to send back the content of the requested file if present

ClientTCP.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()
        sentense = connectionSocket.recv(1024).decode()
```

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()
        sentense = connectionSocket.recv(1024).decode()
```

```
file = open (sentence, "r")
l = file.read(1024)
connectionSocket.send(l.encode())
print ("\n Sent content of " + sentence)
    file().close()
connectionSocket.close()
```

Output

```
Python 3.7.3 (v3.7.3:ef4ec6ed12, Mar 25 2019, 21:26:53)
Type "help", "copyright", "credits" or "license()" for more info
```

The server is ready to receive

When we run client TCP.py

```
Enter file name: serverTCP.py
From server:
(The files from serverTCP.py will be
 and displayed ~~at~~ here)
```

In serverTCP.py

```
The server is ready to receive
Sent content of serverTCP.py
```

10:30

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Q) Using UDP sockets write client-server program to make client sending the file name and server to send back the contents of the requested file if present.

A) client UDP.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input("\n Enter file name:")
clientSocket.sendto(bytes(sentence,"utf-8"),
                    (serverName, serverPort))
fileContent, serverAddress = clientSocket.recvfrom(2048)
print("\n Reply from server:\n")
print(fileContent.decode("utf-8"))
# for i in fileContents:
    print(str(i), end="")
clientSocket.close()
clientSocket.close()
```

2. server UDP.py

```
from socket import *
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_DGRAM)
serverSocket.bind(("127.0.0.1", serverPort))
print("The server is ready to receive")
while 1:
```

```
sentence. clientAddress = serverSocket.recvfrom(2048)
sentence = sentence.decode("utf-8")
file = open(sentence "r")
con = file.read(2048)

serverSocket.sendto(bytes.(con, "utf"),
                    clientAddress)

printf("\n sent content of', end = '')
print(sentence)
file.close()
```

Output:

Run serverUDP.y
The Server is ready to receive

Run clientUPP.py : Enter file name: serverUDP.py
Reply from server

In serverUDP.py

The server is ready to receive.

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