LAB WEEK 11

3. 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.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
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 ('From Server:', filecontents)
clientSocket.close()
```

Server.py

```
from socket import *
serverName="127.0.0.1"
serverPort = 12000
serverSocket = socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
print ("The server is ready to receive")
while 1:
    connectionSocket, addr = serverSocket.accept()
    sentence = connectionSocket.recv(1024).decode()
    file=open(sentence,"r")
    l=file.read(1024)
    connectionSocket.send(l.encode())
file.close()
connectionSocket.close()
```

Output

Client.py

```
= RESTART: C:/Users/Dell/Desktop/5th sem/CN/LAB/Client.py
Enter file name: example.txt
From Server: Hello World!!
```

Figure 1: Output of Client.py

Figure 2: Output of Server.py

```
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     Using TCP/IP sockets, write a client-server program
    to make dient sending the file name and the sorver
    to send back the contents of the requested file if present
    Code
   · Client Py
    from socket impost *
    serverName = "127.0.0.1"
    serverPort = 12000 maring the Thir To
    client socket = socket (AF_INET, SOCK_STREAM)
    client Socket. connect ((sever Name, server Port))
    sentence = input ("thter file name: ")
    client Socket send (Sentence. encode ())
    filecontents = client Socket recr(1024), decode()
    print ('From Server: ', filewontents)
    clientSocket . close ()
 · Server. py
   from socket import to soil TIME IA) sobor I dad
  gerver Name = "127.0.00/2007 rarasa (1.0.0.59) bai otras
   server Port = 12000
   Serversocket = socket(AF_INET, 80CK-STREAM)
  server sock et bind (server lame, server Port)
   Server Socket. 1;sten(1)
  Print ("The server is ready to receive")
      connection Socket, addr - server Socket-accept()
       sentence = connection Socket recv (1024) .decode()
       file = open (sentence " ")
       1 = file. read (1004)
       connection Socket send (1. encode(1))
  file closers
 Connection Socket-closel)
Serveripy - The servoris ready to receive to sent tack to dient
                                                    HelloworldH
Client pay - Enter file name example tot
           From Server: Hellow World!!
```

Figure 3: Observation Book

4. Using UDP 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.

ClientUDP.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input("Enter file name")
clientSocket.sendto(bytes(sentence,"utf-8"),(serverName, serverPort))
filecontents,serverAddress = clientSocket.recvfrom(2048)
print ('From Server:', filecontents)
clientSocket.close()
```

ServerUDP.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)
    file=open(sentence,"r")
    l=file.read(2048)
    serverSocket.sendto(bytes(I,"utf-8"),clientAddress)
    print("sent back to client",I)
    file.close()
```

Output

ClientUDP.py

```
= RESTART: C:/Users/Dell/Desktop/5th sem/CN/LAB/ClientUDP.py
Enter file name: example.txt
From Server: b'Hello World!!'

Figure 4: Output of ClientUDP.py

= RESTART: C:/Users/Dell/Desktop/5th sem/CN/LAB/ServerUDP.py
The server is ready to receive
sent back to client Hello World!!
```

Figure 5: Output of ServerUDP.py

```
24/12/24
      Using UDP 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:
  · Client py UDP. py
    from socket import *
    Ser ver Name = "127.0.0.1"
    server Port = 12000
    clientsocket = socket (AF_INET SOCK_DGIRAM)
    sentence = input ("Finter file name:")
    clientsocker, send to (bytes (sentence, "utf-8"), (server Name, somer Port))
    file contents, server Address = client Socket. recv from (2048)
    print ( From Sener! , file contents)
    Client Socket close ()
   Serveru PP. py
    from socket import *
    Server Port = 12000
    somer socket = socket (AF_ INET, SOCK_DGRAM)
    Somer Sockethind (("R7.0.0.1", sorverPort))
    point (" The seneris ready to receive ")
    while 1:
       sentence, clientAddress = Server Socket-recurron (2048)
      file = open (sentence, day)
      1= file. read (2048)
      server Socket. sendto (bytes (1, "utf-8"), (Hent Address)
      print ("sent back to client", 1)
 file. close()
Output :
SenerUDP.py - The serveris ready to receive
               Sent back to client Helloworld!
Client UDP. py - Enter file name: example tot
                 From Server: Hello world!
```

Figure 6: Observation Book