LAB 10

Aim: Using TCP/IP sockets, to write a client-server program to make the client send the file name and the server to send back the contents of the requested file if present.

Code: servertcp.py from socket import * serverName='LAPTOP-HATRKFO6 ' serverPort = 12530 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() clienttcp.py from socket import * serverName = 'LAPTOPHATRKFO6' serverPort = 12530 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()

Output Screenshot

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

```
Enter file nameservertcp.py
From Server: from socket import *
serverName='LAPTOP-HATRKFO6'
serverPort = 12530
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()
```

Aim: Using UDP sockets, write a client-server program to make the client send the file name and the server to send back the contents of the requested file if present.

Code: 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(l,"utf-8"),clientAddress) print("sent back to client",l) file.close() 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()

Output Screenshot

```
The server is ready to receive
sent back to client 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(l,"utf-8"),clientAddress)
     print("sent back to client",l)
     file.close()
```

```
Enter file nameserverudp.py
From Server: b'from socket import *\nserverPort = 12000\nserverSocket = socket(AF_INET, SOCK_DGRAM)\nserverSocket.bind(("127.0.0.1",
serverPort))\nprint ("The server is ready to receive")\nwhile 1:\n     sentence,clientAddress = serverSocket.recvfrom(2048)\n     \n
   file=open(sentence,"r")\n     l=file.read(2048)\n  \n     serverSocket.sendto(bytes(l,"utf-8"),clientAddress)\n     print("sent ba
ck to client",l)\n     file.close()'
```