Program 4

Aim of the program:

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.

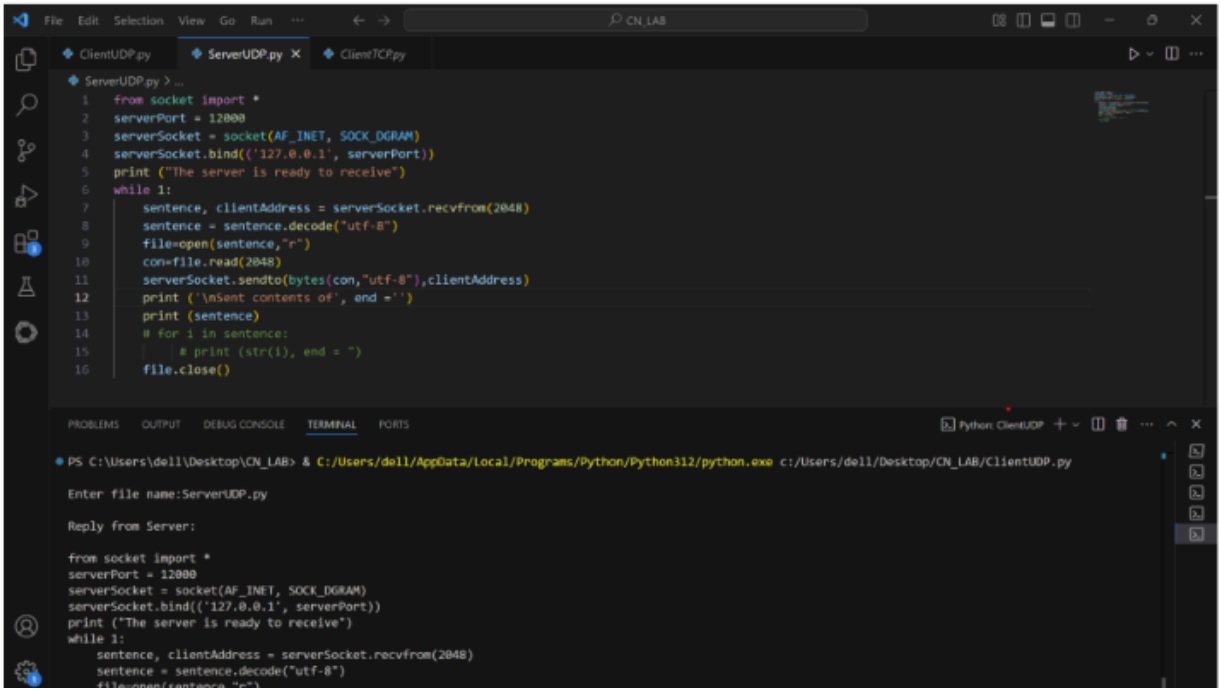
Code:

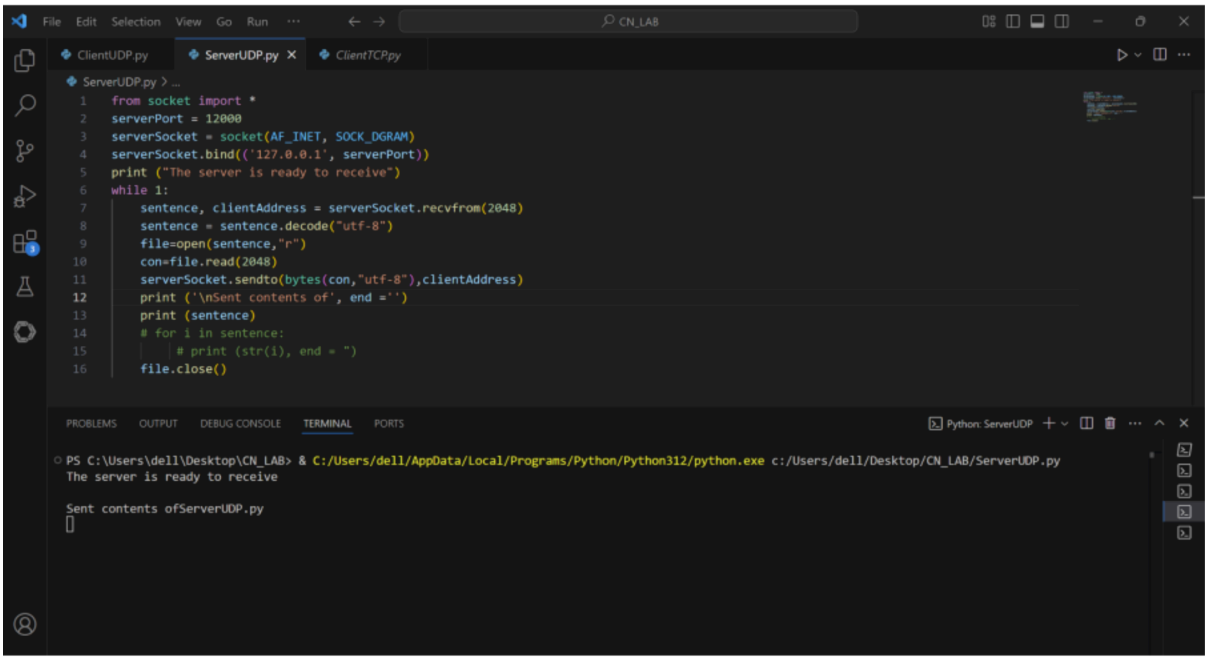
ClientUDP.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input("\nEnter file name: ")
clientSocket.sendto(bytes(sentence, "utf-8"), (serverName, serverPort))
filecontents, serverAddress = clientSocket.recvfrom(2048)
print('\nReply from Server:\n')
print(filecontents.decode("utf-8"))
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)
sentence = sentence.decode("utf-8")
file = open(sentence, "r")
con = file.read(2048)
serverSocket.sendto(bytes(con, "utf-8"), clientAddress)
print('\nSent contents of ', end=' ')
print(sentence)
file.close()
```


File Edit Selection View Go Run
CN_LAB
ClientUDP.py
ServerUDP.py
ClientTCP.py
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)
sentence = sentence.decode("utf-8")
file=open(sentence,"r")
con=file.read(2048)
serverSocket.sendto(bytes(con,"utf-8"),clientAddress)
print ('\nSent contents of', end ='')
print (sentence)
# for i in sentence:
# print (str(i), end = '')
file.close()
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python: ClientUDP
PS C:\Users\dell\Desktop\CN_LAB> & C:/Users/dell/AppData/Local/Programs/Python/Python312/python.exe c:/Users/dell/Desktop/CN_LAB/ClientUDP.py
Enter file name:ServerUDP.py
Reply from Server:
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 Edit Selection View Go Run
CN_LAB
ClientUDP.py
ServerUDP.py
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ServerUDP.py > ...
from socket import *
serverPort = 12000
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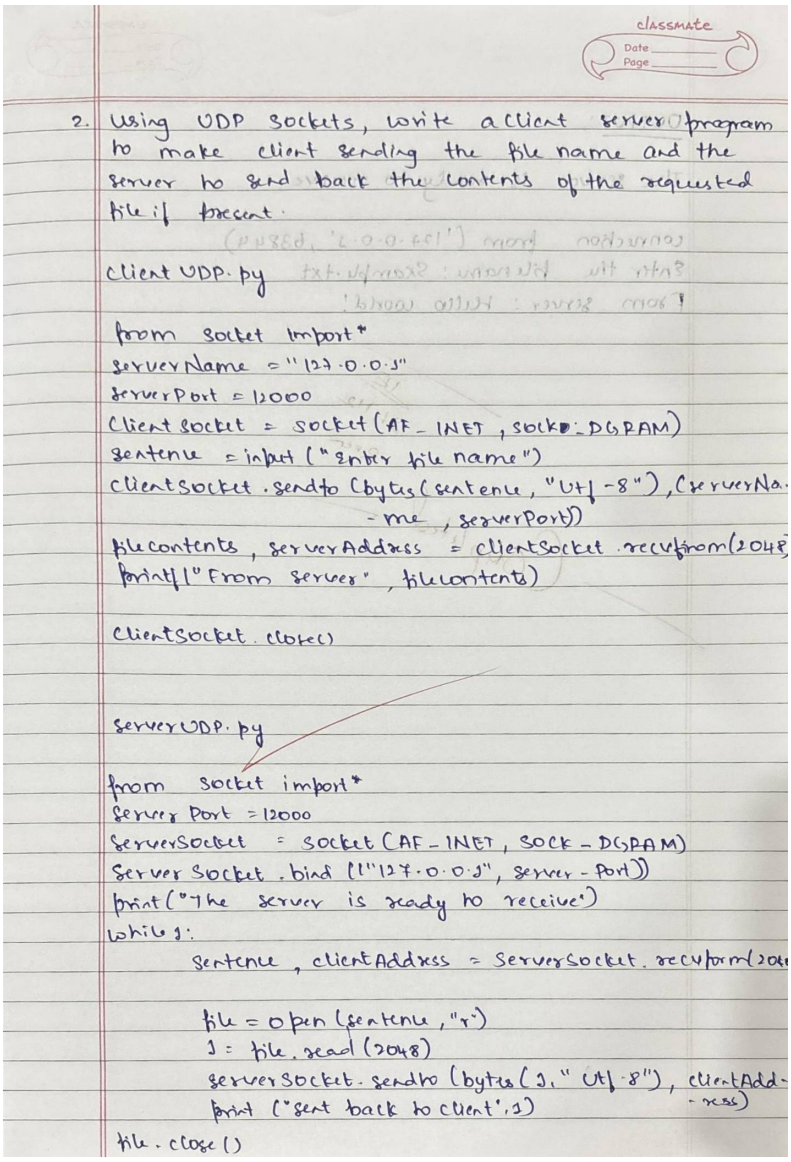
sentence = sentence.decode("utf-8")
file=open(sentence,"r")
con=file.read(2048)
serverSocket.sendto(bytes(con,"utf-8"),clientAddress)
print ('\nSent contents of', end ='')
print (sentence)
# for i in sentence:
# print (str(i), end = '')
file.close()
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python: ServerUDP
PS C:\Users\dell\Desktop\CN_LAB> & C:/Users/dell/AppData/Local/Programs/Python/Python312/python.exe c:/Users/dell/Desktop/CN_LAB/ServerUDP.py
The server is ready to receive
Sent contents ofServerUDP.py

Observation:



2. 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.

Client UDP.py

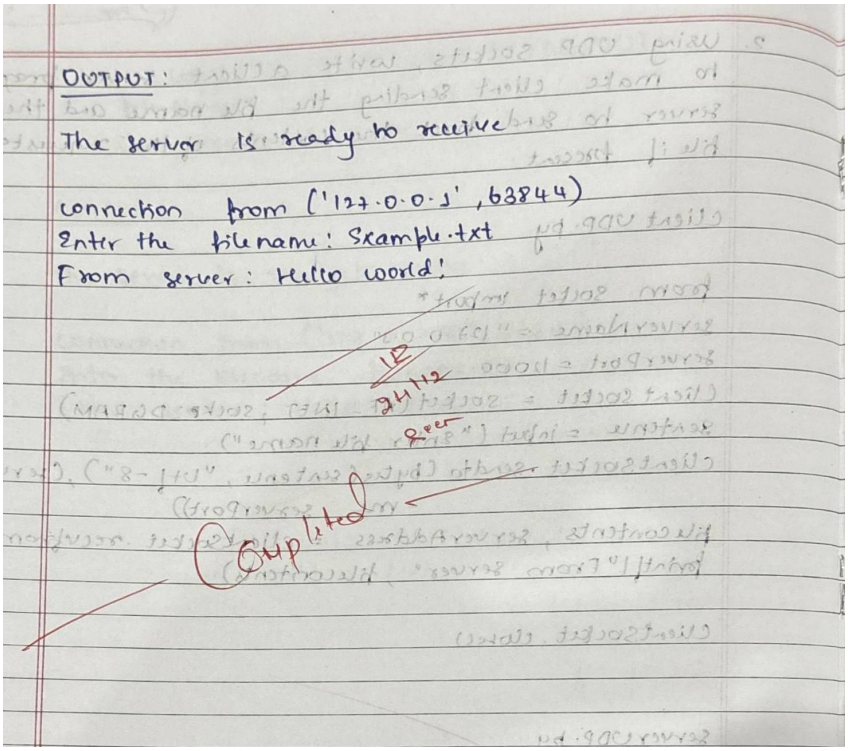
```
from socket import*
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input("Enter file name")
clientSocket.sendto(bytes(sentence, "utf-8"), (serverName, serverPort))
fileContents, serverAddress = clientSocket.recvfrom(2048)
print("From Server", fileContents)

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



OUTPUT:

The server is ready to receive

connection from ('127.0.0.1', 63844)
Enter the filename: Sxample.txt
From server: Hello world!

IP
24112
Port
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