EXPERIMENT 16

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

Client UDP. py

```
from socket import *
serverName = '127.0.0.1'
server Port = 12000
clientSocket = Socket (AF_INET, SOCK_DGRAM)
sentence = input ("\n Enter file name");
clientSocket. sendto (bytes (sentence, "utf-8"), (serverName, serverPort))
file contents, serverAddress = clientSocket. recvfrom (2048)
print ("\n Reply from server");
print ( file contents. decode ("UTF-8"))
for i in file contents:
        print (str (i), end '')
clientSocket. done ()
clientSocket. done ()
```
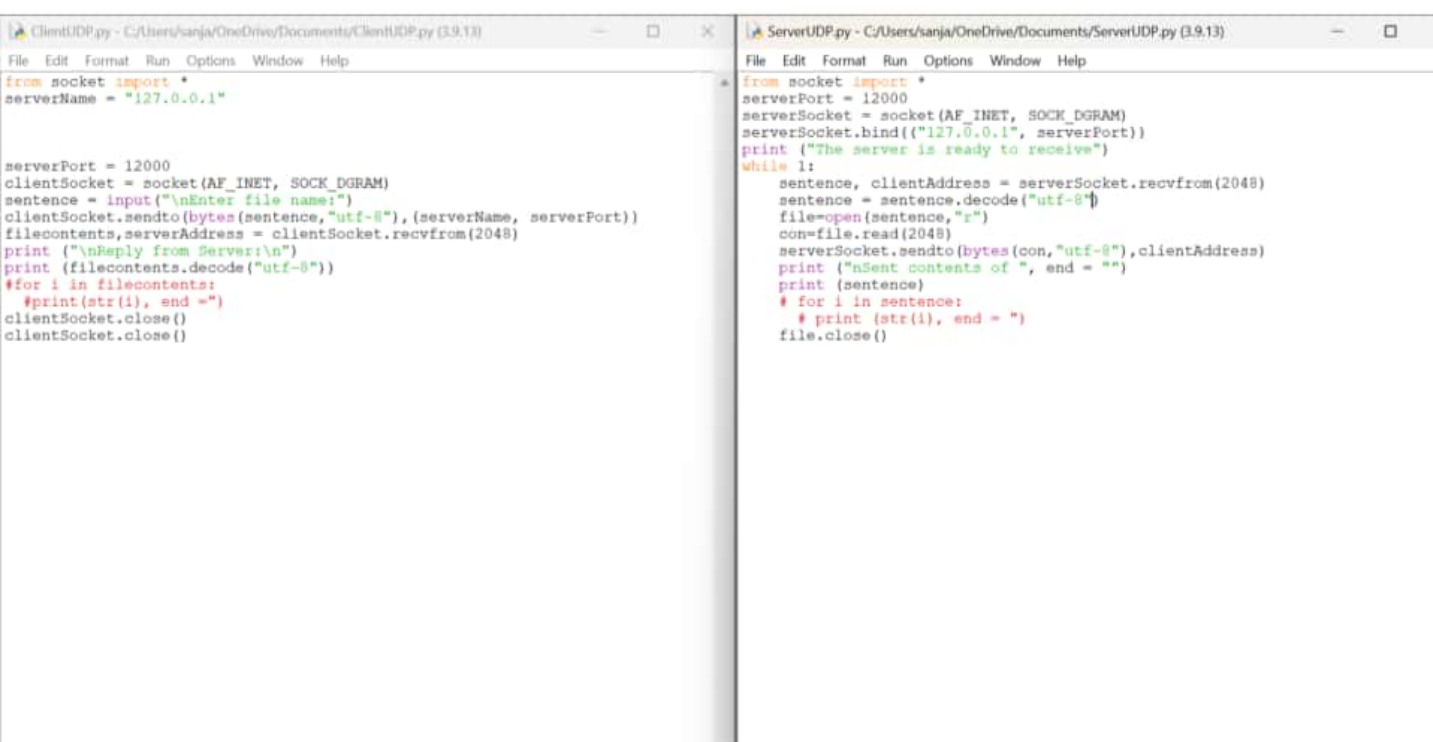
→ Server UDP. py
```
from socket import *
server Port = 12000
serverSocket = socket (AF_INET, SOCK_DGRAM)
serverSocket.bind (('127.0.0.1', serverPort))
print ("The server is ready to receive")
while 1:
    sentence, clientAddress = serverSocket.recvfrom(2048)
    sentence = sentence.decode ("utf-8")
    file = open (sentence, "r")
    con = file.read (2048)
    serverSocket.sendto (bytes (con, "utf-8"), clientAddress)
    print ('\n Sent Contents of ', end= '')
    print (sentence)
    for i in sentence
        print (shr(i), end= '')
        file.done ()
```

OUTPUT:

Server Side.   client Side

Server ready to receive   Enter file name: server UDP.py

Sent contents of server.UDP.py

The server is ready to receive   Reply from server:

                                     from socket import *
                                     ;

                                     (Code of server UDP.py written

```python
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"))
#for i in filecontents:
  #print(str(i), end ="")
clientSocket.close()
clientSocket.close()
```

```python
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()
```

Left window — IDLE Shell 3.9.13

```
File  Edit  Shell  Debug  Options  Window  Help
Python 3.9.13 (tags/v3.9.13:6de2ca5, May 17 2022, 16:36:42) [MSC v.1929 64 b
it (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============ RESTART: C:/Users/sanja/OneDrive/Documents/ClientUDP.py =======
====

Enter file name:
============ RESTART: C:/Users/sanja/OneDrive/Documents/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=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()

>>>
```
Ln: 30 Col: 4

Right window — *IDLE Shell 3.9.13*

```
File  Edit  Shell  Debug  Options  Window  Help
Python 3.9.13 (tags/v3.9.13:6de2ca5, May 17 2022, 16:36:42) [MSC v.1929 64 b
it (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============ RESTART: C:/Users/sanja/OneDrive/Documents/ServerUDP.py =======
====
The server is ready to receive
nSent contents of ServerUDP.py
```
Ln: 7 Co