

Experiment 16

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

ServerUDP.py

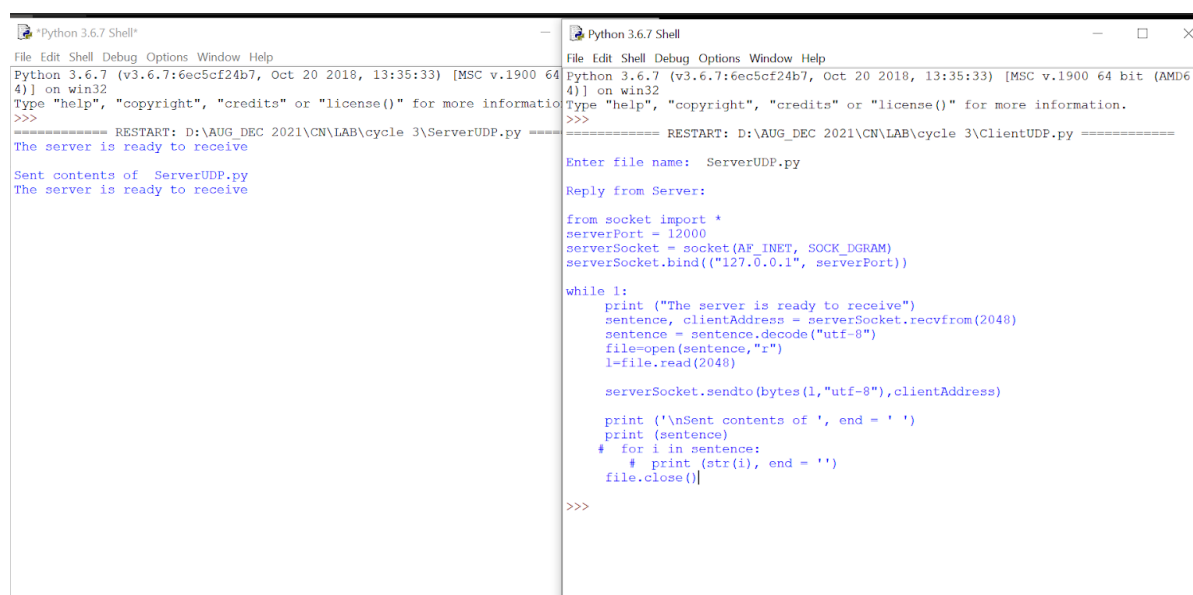
```
from socket import *
serverPort = 12000
serverSocket = socket(AF_INET, SOCK_DGRAM)
serverSocket.bind(("127.0.0.1", serverPort))
print ("The server is ready to receive")
while 1:
    sentence, clientAddress = serverSocket.recvfrom(2048)
    sentence = sentence.decode("utf-8")
    file=open(sentence,"r")
    con=file.read(2048)

    serverSocket.sendto(bytes(con,"utf-8"),clientAddress)

    print ("\nSent contents of ', end = ' ")
    print (sentence)
    # for i in sentence:
```

```
# print (str(i), end = ")
file.close()
```

Output:



The image shows two side-by-side Python 3.6.7 Shell windows. The left window is running a server script (ServerUDP.py) and the right window is running a client script (ClientUDP.py). The server window shows the output of the script, including the message 'The server is ready to receive' and the contents of the file 'ServerUDP.py'. The client window shows the code for the client script, which is designed to connect to the server and receive data.

```
Python 3.6.7 Shell
File Edit Shell Debug Options Window Help
Python 3.6.7 (v3.6.7:6ec5cf24b7, Oct 20 2018, 13:35:33) [MSC v.1900 64
4)] on win32
Type "help", "copyright", "credits" or "license()" for more informatio
>>>
===== RESTART: D:\AUG_DEC 2021\CN\LAB\cycle 3\ServerUDP.py =====
The server is ready to receive
Sent contents of ServerUDP.py
The server is ready to receive

Python 3.6.7 Shell
File Edit Shell Debug Options Window Help
Python 3.6.7 (v3.6.7:6ec5cf24b7, Oct 20 2018, 13:35:33) [MSC v.1900 64 bit (AMD6
4)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\AUG_DEC 2021\CN\LAB\cycle 3\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))

while 1:
    print ("The server is ready to receive")
    sentence, clientAddress = serverSocket.recvfrom(2048)
    sentence = sentence.decode("utf-8")
    file=open(sentence,"r")
    l=file.read(2048)

    serverSocket.sendto(bytes(l,"utf-8"),clientAddress)

    print ('\nSent contents of ', end = ' ')
    print (sentence)
    # for i in sentence:
    #     print (str(i), end = '')
    file.close()

>>>
```