COMPUTER NETWORKS

LAB OBSERVATION
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Question: 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:

Server.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:
```

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

Client.py

```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'))clientSocket.close()
clientSocket.close()
```

Output:

clientupd.py - C:/Users/Admin/Desktop/1BM21CS047/CN/clientupd.py (3.10.8)

```python
from socket import *
serverName = '127.0.0.1'

serverPort = 12000
clientSocket = socket(AF...
sentence = input('\nEnte...
clientSocket.sendto(byte...
filecontents,serverAddre...
print ('\nReply from Ser...
print (filecontents.deco...
# for i in filecontents:...
# print(str(i), end = &#...
clientSocket.close()
clientSocket.close()
```

IDLE Shell 3.10.8

```
Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30) [MSC v.1933 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
========================= RESTART: C:/Users/Admin/Desktop/1BM21CS047/CN/clientu
pd.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()

>>>
```

serverudp.py - C:/Users/Admin/AppData/Local/Programs/Python/Python310/serverudp.py (3.10.8)

```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:
    sent...
    sent...
    file...
    con=...

    serv...

    print...
    print...
    # fo...

    file...
```

IDLE Shell 3.10.8

```
Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30) [MSC v.1933 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
================== RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python31
0/serverudp.py ==================
The server is ready to receive

Sent contents of serverudp.py
```