Aim : 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.

Solution

Client side program:

ClientUDP. py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket (AF_INET, SOCK_DGRAM)
sentence = input ("\n Enter file name:")
clientSocket. send to (bytes (sentence, "utf-8"),
    (serverName, serverPort)
file contents, serverAddress = clientSocket. recvfrom (204
print ("\n Reply from server:\n")
print (filecontents. decode ("UTF-8"))
```

```python
    for i in filecontents:
        print (str (i), end = ' ')

    clientSocket . close()

    clientSocket . close ()
```

server side program:

ServerUDP. py

```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 (" In sent contents of ,end = 1)

    print (sentence)

    for i in sentence:

        print (shr(i), end : " )

    file. close ()
```

Output:

Server side:

The server is ready to receive
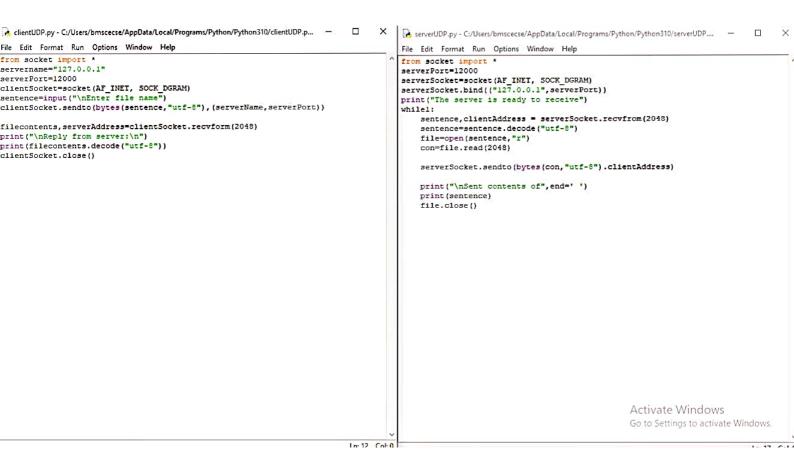
Client side:

Enter the file name: serverUDP.py

Reply from server:

from socket import *
:

(serverUDP.py program)

Server side:

sent contents of serverUDP.py

The server is ready to receive.

clientUDP.py - C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/clientUDP.p...

File Edit Format Run Options Window Help

```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.recvform(2048)
print("\nReply from server:\n")
print(filecontents.decode("utf-8"))
clientSocket.close()
```

serverUDP.py - C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/serverUDP....

File Edit Format Run Options Window Help

```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")
while1:
    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()
```

Activate Windows
Go to Settings to activate Windows.

IDLE Shell 3.10.0 (left window)

```
    line 6, in <module>
        clientSocket.sendto(bytes(sentence,"utf-8"),(serverName,serverPort))
NameError: name 'serverName' is not defined. Did you mean: 'servername'?

= RESTART: C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/clientUDP
y

Enter file nameclientTCP.py
Traceback (most recent call last):
  File "C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/clientUDP.py
  line 8, in <module>
    filecontents,serverAddress=clientSocket.recvform(2048)
AttributeError: 'socket' object has no attribute 'recvform'. Did you mean: 're
from'?

= RESTART: C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/clientUDP
y

Enter file nameclientTCP.py

= RESTART: C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/clientUDP
y

Enter file nameclientTCP.py

Reply from server:

from socket import*
serverName="127.0.0.1"
serverPort=12000
clientSocket=socket(AF_INET, SOCK_STREAM)
clientSocket.connect((serverName,serverPort))
sentence=input("\nEnter the file name:")
clientSocket.send(sentence.encode())
filecontents=clientSocket.recv(1024).decode()
print("\nFrom server:\n")
print(filecontents)
clientSocket.close()
```

Ln: 42

IDLE Shell 3.10.0 (right window)

```
Python 3.10.0 (tags/v3.10.0:b494f59, Oct  4 2021, 19:00:18) [MSC v.1929 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

= RESTART: C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/serverUDP.p
y
The server is ready to receive
Traceback (most recent call last):
  File "C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/serverUDP.py",
  line 12, in <module>
    serverSocket.sendto(bytes(con,"utf-8").clientAddress)
AttributeError: 'bytes' object has no attribute 'clientAddress'

= RESTART: C:/Users/bmscecse/AppData/Local/Programs/Python/Python310/serverUDP.p
y
The server is ready to receive

Sent contents of clientTCP.py
```

Ln: 15 Col: 0