

WEEK 16

Using UDP sockets, write a client-server program to make the client send 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 windows of the Python IDLE Shell 3.11.4 running on Windows 10. Both windows have identical menus: File, Edit, Shell, Debug, Options, Window, Help.

Left Window (Client Side):

- Output: Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
- Type "help", "copyright", "credits" or "license()" for more information.
- >>> = RESTART: C:\Users\Admin\Desktop\lhm2lcs065\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()
- >>>

Right Window (Server Side):

- Output: Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit (AMD64)] on win32
- Type "help", "copyright", "credits" or "license()" for more information.
- >>> = RESTART: C:\Users\Admin\Desktop\lhm2lcs065\ServerUDP.py
- The server is ready to receive
- Sent contents of ServerUDP.py

OBSERVATION:

- * 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("\nEnter file name : ")
```

```
clientSocket.sendto(Sentence.encode("utf-8"), (ServerName, ServerPort))
```

```
S  
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("\n Sent contents of", end = ' ')  
print(sentence)  
# for i in sentence:  
#     print (str(i), end = '')  
file.close()
```

Output

The server is ready to receive

Sent contents of ServerUDP.py

The server is ready to receive

Enter file name : ServerUDP.py

Reply from Server)

whole ServerUDP contents