

This screenshot shows the Visual Studio Code editor with the file `ClientUDP.py` open. The code is a Python script that acts as a client, sending data to a server. The terminal window at the bottom shows the command to run the script and its output.

```
1 from socket import *
2 serverPort = 12000
3 serverSocket = socket(AF_INET, SOCK_DGRAM)
4 serverSocket.bind(('127.0.0.1', serverPort))
5 print ("The server is ready to receive")
6 while 1:
7     sentence, clientAddress = serverSocket.recvfrom(2048)
8     sentence = sentence.decode("utf-8")
9     file=open(sentence,"r")
10    con=file.read(2048)
11    serverSocket.sendto(bytes(con,"utf-8"),clientAddress)
12    print ('\nSent contents of', end='')
13    print (sentence)
14    # for i in sentence:
15    |   # print (str(i), end = "")
16    file.close()
```

Terminal Output:

```
PS C:\Users\del1\Desktop\CN_LAB> & C:/Users/dell/AppData/Local/Programs/Python/Python312/python.exe c:/Users/dell/Desktop/CN_LAB/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")
```

This screenshot shows the Visual Studio Code editor with the file `ServerUDP.py` open. The code is a Python script that acts as a server, receiving data from a client. The terminal window at the bottom shows the command to run the script and its output.

```
1 from socket import *
2 serverPort = 12000
3 serverSocket = socket(AF_INET, SOCK_DGRAM)
4 serverSocket.bind(('127.0.0.1', serverPort))
5 print ("The server is ready to receive")
6 while 1:
7     sentence, clientAddress = serverSocket.recvfrom(2048)
8     sentence = sentence.decode("utf-8")
9     file=open(sentence,"r")
10    con=file.read(2048)
11    serverSocket.sendto(bytes(con,"utf-8"),clientAddress)
12    print ('\nSent contents of', end='')
13    print (sentence)
14    # for i in sentence:
15    |   # print (str(i), end = "")
16    file.close()
```

Terminal Output:

```
PS C:\Users\del1\Desktop\CN_LAB> & C:/Users/dell/AppData/Local/Programs/Python/Python312/python.exe c:/Users/dell/Desktop/CN_LAB/ServerUDP.py

The server is ready to receive

Sent contents ofServerUDP.py
[]
```

EXPERIMENT-16

Using UDP sockets with 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.

clientUDP.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
clientSocket = socket(AF_INET, SOCK_DGRAM)
sentence = input("Enter file name:")
clientSocket.sendto(bytes(sentence, "utf-8"), (serverName,
serverPort))

fileContents, serverAddress = clientSocket.recvfrom(2048)
print("In Reply 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("In Sent contents of", end=" ")
    print(sentence)
    file.close()
```