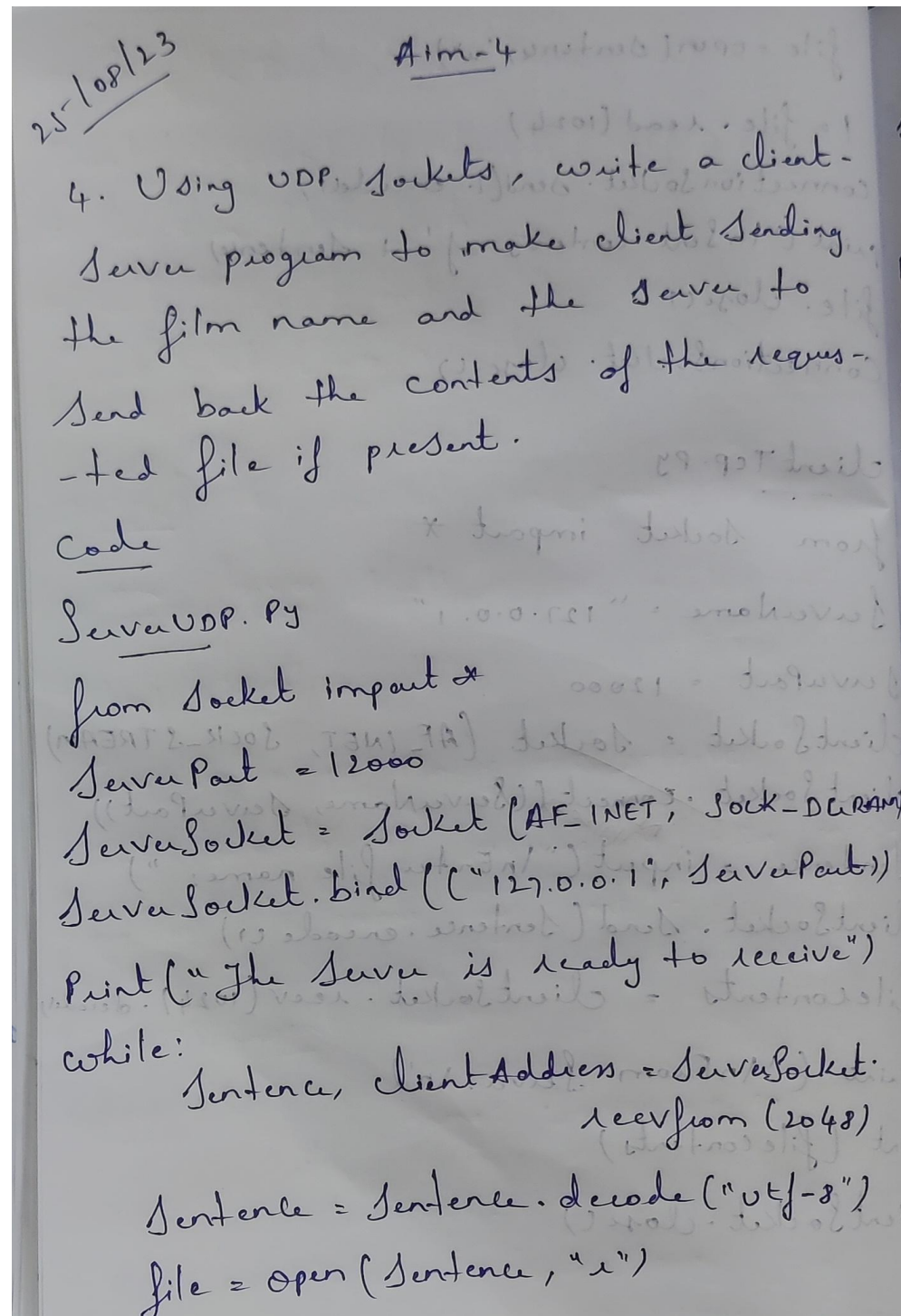


## Aim-16

16. 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:



The image shows a handwritten code snippet for a UDP server in Python. The code is written on a piece of paper with a date '25/08/23' in the top left corner and 'Aim-4' written above the code. The code defines a server port, creates a UDP socket, binds it to the local address '127.0.0.1', and enters a loop to receive data from clients. It decodes the received data and attempts to open a file with that name.

```
25/08/23  
Aim-4  
4. 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  
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:  
    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)
```

```
# for i in sentence:
```

```
# print(str(i), end = ' ')
```

```
file.close()
```

clientUDP.py

from import

from Socket import \*

serverName = "127.0.0.1"

serverPort = 12000

clientSocket = Socket(AF\_INET, SOCK\_DGRAM)

sentence = input("In Enter file name: ")

clientSocket.sendto(bytes(sentence, "utf-8"),

(serverName, serverPort))

filecontents, serverAddress = clientSocket.recvfrom(2048)

```
print ('\n Reply from Server: \n')
Print (filecontents.decode("utf-8"))
# for i in filecontents:
# print (str(i), end = '')
clientSocket.close()
```

### Output

from Server shell

Enter file name:

The server is ready to receive  
Sent contents of "Serverudp.py (after sending)"  
entering the file name by client):

from client shell

Enter the file name: Serverudp.py

Reply from Server:

(The contents of Serverudp.py will be  
displayed/shown as per request).

## Output:

```
Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)]
on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: D:\even-sem-re-registration-2023\computer networks\socket_udp_tcp\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()
```

```
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 - D:\even-sem-re-registration-2023\computer networks\socket_udp_tcp\serverUdp.py (3.10.5)
File Edit Format Run Options Window Help
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()
```

```
IDLE Shell 3.10.5*
File Edit Shell Debug Options Window Help
Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)]
on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: D:\even-sem-re-registration-2023\computer networks\socket_udp_tcp\serverUdp.py
The server is ready to receive
Sent contents of serverUdp.py
```