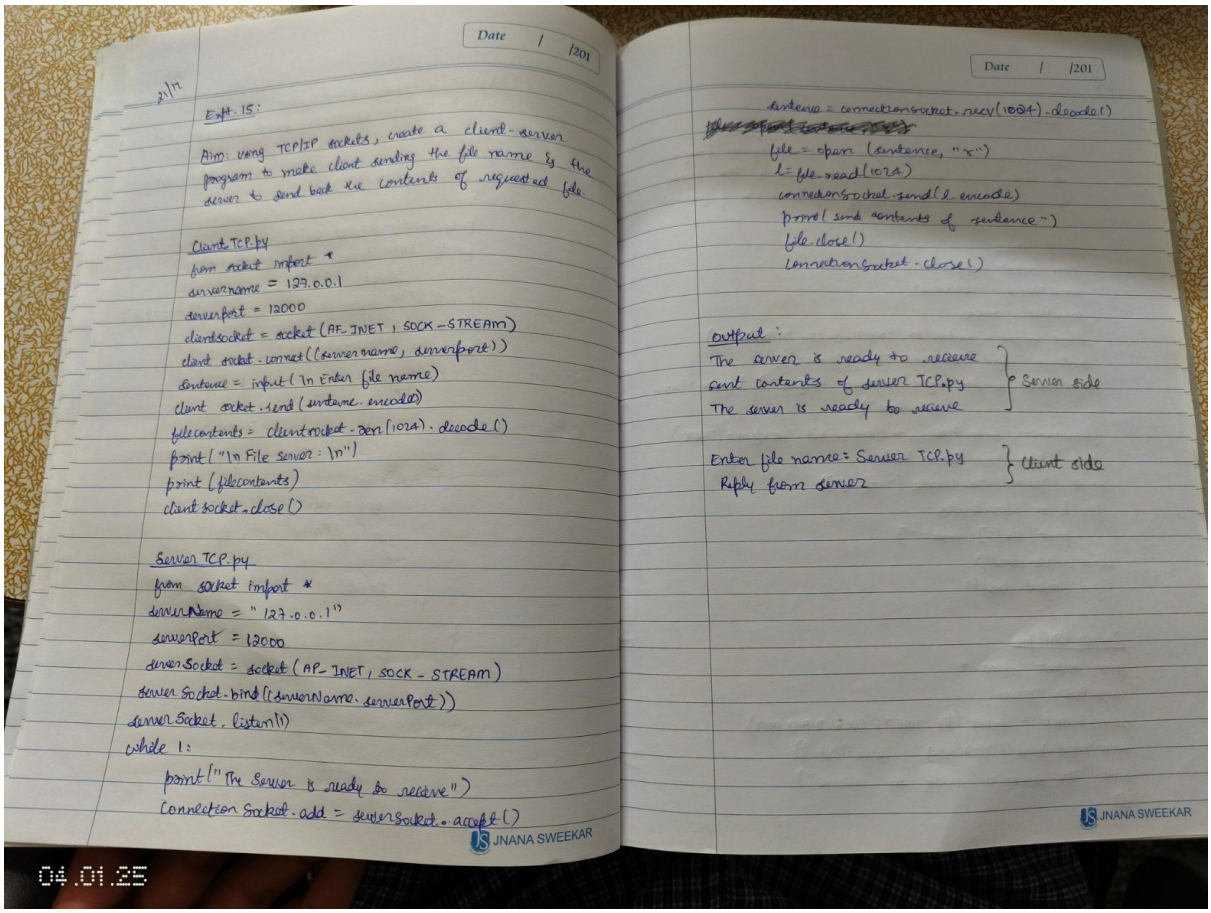
Expt. 15 – 21/12/2024



Expt. 15:

Aim: Using TCP/IP sockets, create a client-server program to make client sending the file name & the server to send back the contents of requested file.

Client TCP.py

```
from socket import *
serverName = 129.0.0.1
serverPort = 12000
clientSocket = socket (AF_INET , SOCK_STREAM)
client socket.connect ((servername, serverport))
sentence = input ( "In Enter file name")
client socket.send (sentence.encode())
filecontents = clientsocket.recv(1024).decode()
print ("In File server : In")
print (filecontents)
client socket.close()
```

Server TCP.py

```
from socket import *
serverName = "127.0.0.1"
serverPort = 12000
serverSocket = socket (AF_INET, SOCK_STREAM)
serverSocket.bind ((serverName, serverPort))
serverSocket.listen(1)
while 1:
    print ("The Server is ready to receive")
    ConnectionSocket.add = serverSocket.accept()
```

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```
sentence = connectionsocket.recv(1024).decode()
file = open (sentence, "r")
l = file.read(1024)
connectionSocket.send(l.encode)
print( sent contents of sentence")
file.close()
connectionSocket.close()
```

Output:

```
The server is ready to receive
sent contents of server TCP.py
The server is ready to receive

Enter file name: Server TCP.py
Reply from server
```

Server side

Client side

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04.01.25

Code:

ServerTCP.py

```
from socket import *
serverName="127.0.0.1"
serverPort=12000
serverSocket=socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
print("The server is ready to receive")
connectionSocket,addr=serverSocket.accept()
sentence=connectionSocket.recv(1024).decode()
file=open(sentence,"r")
l=file.read(1024)
connectionSocket.send(l.encode())
print("\n Sent contents of"+sentence)
file.close()
connectionSocket.close()
```

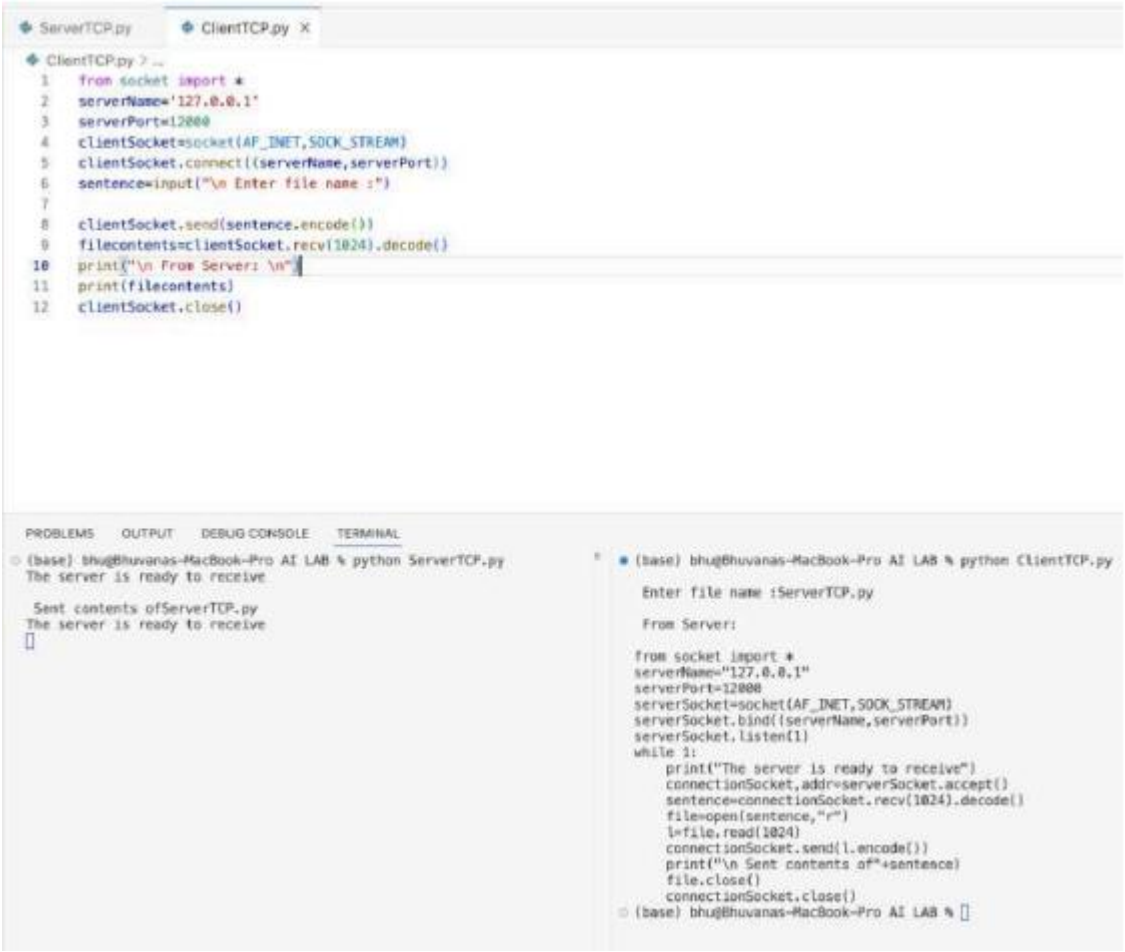
ClientTCP.py

```
from socket import *
serverName='127.0.0.1'
serverPort=12000
clientSocket=socket(AF_INET,SOCK_STREAM)
clientSocket.connect((serverName,serverPort))
sentence=input("\n Enter file name :")
clientSocket.send(sentence.encode())
filecontents=clientSocket.recv(1024).decode()
print("\n From Server: \n")
```

print(filecontents)

clientSocket.close()

Output:



ServerTCP.py ClientTCP.py

ServerTCP.py > ...

```python
from socket import *
serverName="127.0.0.1"
serverPort=12000
serverSocket=socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("The server is ready to receive")
    connectionSocket,addr=serverSocket.accept()
    sentence=connectionSocket.recv(1024).decode()
    file=open(sentence,"r")
    l=file.read(1024)
    connectionSocket.send(l.encode())
    print("\n Sent contents of"+sentence)
    file.close()
    connectionSocket.close()
```

(variable) serverSocket: socket

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
(base) bhu@Bhuvanas-MacBook-Pro AI LAB % python ServerTCP.py
The server is ready to receive

 Sent contents ofServerTCP.py
The server is ready to receive
```

```
(base) bhu@Bhuvanas-MacBook-Pro AI LAB % python ClientTCP.py

 Enter file name :ServerTCP.py

 From Server:

from socket import *
serverName="127.0.0.1"
serverPort=12000
serverSocket=socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("The server is ready to receive")
    connectionSocket,addr=serverSocket.accept()
    sentence=connectionSocket.recv(1024).decode()
    file=open(sentence,"r")
    l=file.read(1024)
    connectionSocket.send(l.encode())
    print("\n Sent contents of"+sentence)
    file.close()
    connectionSocket.close()
(base) bhu@Bhuvanas-MacBook-Pro AI LAB %
```