

Exp 4A)

```
# client.py
import socket

ip = "127.0.0.1"
port = 1234

server = socket.socket(socket.AF_INET,
socket.SOCK_STREAM)
server.connect((ip, port))

while True:
    string = input("Enter a message: ")
    server.send(bytes(string, "utf-8"))
    print("Server:", server.recv(1024).decode("utf-8"))

# server.py
import socket

ip = "127.0.0.1"
port = 1234

server = socket.socket(socket.AF_INET,
socket.SOCK_STREAM)
server.bind((ip, port))
server.listen(2)

while True:
    client, address = server.accept()
    print(f"Connected to {address}")

    string = client.recv(1024).decode("utf-8")
    print(f"Client: {string}")
    msg = input("Enter message: ")
    client.send(msg.encode("utf-8"))
```

How to execute?

- 1) Open windows, and create file client.py and copy code
- 2) Create another file server.py and copy code
- 3) From the folder where you stored these two files, open command prompt
- 4) Type command "python server.py" and click enter. this will start server
- 5) Open another command prompt from same location, and type "python client.py"
- 6) Now you can send messages. To send messages, type your message and click enter.
- 7) If any error comes, solve it on your own, you are in CSE 😊

Exp 4B)

```
# client.py
import socket

ip = "127.0.0.1"
port = 1234

server = socket.socket(socket.AF_INET,
socket.SOCK_STREAM)
server.connect((ip, port))

while True:
    string = input("Enter a message: ")
    server.send(bytes(string, "utf-8"))
    print("Server:", server.recv(1024).decode("utf-8"))

# server.py
import socket

ip = "127.0.0.1"
port = 1234

server = socket.socket(socket.AF_INET,
socket.SOCK_STREAM)
server.bind((ip, port))
server.listen(2)

while True:
    client, address = server.accept()
    print(f"Connected to {address}")

    string = client.recv(1024).decode("utf-8")
    print(f"Client: {string}")
    msg = input("Enter message: ")
    client.send(msg.encode("utf-8"))
```

How to execute?

- 1) You have to run client.py on your friend's computer
- 2) In client.py, enter the value of "ip" as ip of your computer
- 3) In server.py also, enter the value of "ip" as ip of your computer
- 4) 127.0.0.1 is localhost, so don't use it for exp 4b