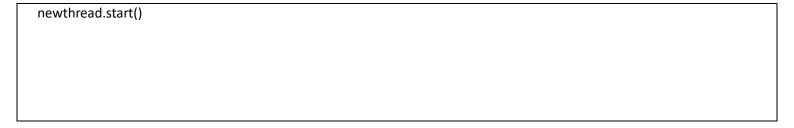## Server Code

```python
import socket, threading
class ClientThread(threading.Thread):
    def _init_(self,clientAddress,clientsocket):
        threading.Thread._init_(self)
        self.csocket = clientsocket
        print ("New connection added: ", clientAddress)
    def run(self):
        print ("Connection from : ", clientAddress)
        #self.csocket.send(bytes("Hi, This is from Server..",'utf-8'))
        msg = ''
        while True:
            data = self.csocket.recv(2048)
            msg = data.decode()
            if msg=='bye from clientA':
                break
            print (msg)
            self.csocket.send(bytes(msg,'UTF-8'))
        print ("Client at ", clientAddress , " disconnected...")
LOCALHOST = "127.0.0.1"
PORT = 8080
server = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
server.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
server.bind((LOCALHOST, PORT))
print("Server started")
print("Waiting for client request..")
while True:
    server.listen(1)
    clientsock, clientAddress = server.accept()
    newthread = ClientThread(clientAddress, clientsock)
```

```
  newthread.start()
```

## Client A

```
import socket
SERVER = "127.0.0.1"
PORT = 8080
client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
client.connect((SERVER, PORT))
client.sendall(bytes("This is from Client",'UTF-8'))
while True:
  in_data =  client.recv(1024)
  print("From Server :" ,in_data.decode())
  out_data = input()
  out_data += " from clientA"
  client.sendall(bytes(out_data,'UTF-8'))
  if out_data=='bye':
          break
client.close()
```

## Client B

```
import socket
SERVER = "127.0.0.1"
PORT = 8080
client = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
```

```
client.connect((SERVER, PORT))

client.sendall(bytes("This is from Client",'UTF-8'))

while True:

  in_data =  client.recv(1024)

  print("From Server :" ,in_data.decode())

  out_data = input()

  out_data += " from clientB"

  client.sendall(bytes(out_data,'UTF-8'))

  if out_data=='bye':

        break

client.close()
```

**Output:**

```
cnlab@cnlab-Precision-Tower-3420:~/DC/prac3$ python3 server.py

Server started

Waiting for client request..

New connection added:  ('127.0.0.1', 41954)

Connection from :  ('127.0.0.1', 41954)

This is from Client

New connection added:  ('127.0.0.1', 51368)

Connection from :  ('127.0.0.1', 51368)

This is from Client

New connection added:  ('127.0.0.1', 60472)

Connection from :  ('127.0.0.1', 60472)

This is from Client

Hiii from clientA

Hello from clientB

How are you?  from client
```

**Client A:**

cnlab@cnlab-Precision-Tower-3420:~/DC/prac3$ python3 clientA.py

From Server : This is from Client

Hiii

From Server : Hiii from clientA


**Client B:**

cnlab@cnlab-Precision-Tower-3420:~/DC/prac3$ python3 clientB.py

From Server : This is from Client

Hello

From Server : Hello from clientB