### Python Practical no 7 : Client

### By Parth Gawad, Roll no : 62

import socket  
  
PORT = 5050  
#SERVER = ''  
SERVER = socket.gethostbyname (socket.gethostname ())  
ADDR = (SERVER, PORT)  
FORMAT = 'utf-8'  
HEADER = 64  
DISCONNECT\_MESSAGE = '!DISCONNECT'  
  
client = socket.socket (socket.AF\_INET, socket.SOCK\_STREAM)  
client.connect (ADDR)  
  
def send (messages):  
 message = messages.encode (FORMAT)  
 messageLength = len (message)  
 sendLength = str (messageLength).encode (FORMAT)  
 sendLength += b' ' \* (HEADER - len (sendLength))  
 client.send (sendLength)  
 client.send (message)  
 print (client.recv (2045).decode (FORMAT))  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 send ('Hello World')  
 send (DISCONNECT\_MESSAGE)

Message Recieved  
Message Recieved

### Python Practical no 7 : server

### By Parth Gawad, Roll no : 62

import socket, threading  
  
PORT = 5050  
SERVER = socket.gethostbyname (socket.gethostname ())  
ADDR = (SERVER, PORT)  
FORMAT = 'utf-8'  
HEADER = 64  
DISCONNECT\_MESSAGE = '!DISCONNECT'  
  
server = socket.socket (socket.AF\_INET, socket.SOCK\_STREAM)  
server.bind (ADDR)  
  
def clientHandling (connection, address):  
 print (f'[NEW CONNECTION] {address} connected')  
 isConnected = True  
 while isConnected:  
 messageLength = connection.recv (HEADER).decode (FORMAT)  
 if messageLength:  
 messageLength = int (messageLength)  
 message = connection.recv (messageLength).decode (FORMAT)  
 if message == DISCONNECT\_MESSAGE:  
 isConnected = False  
 print (f'[{address}] {message}')  
 connection.send ('Message Recieved'.encode (FORMAT))  
 connection.close ()  
  
def start ():  
 server.listen ()  
 print (f'[LISTENING] Server is listening on {SERVER}')  
 while True:  
 connection, address = server.accept ()  
 thread = threading.Thread (target=clientHandling, args=(connection, address))  
 thread.start ()  
 print (f'[ACTIVE CONNECTION] {threading.active\_count () - 1}')  
  
print ('[SERVER STARTING] server has been started')  
start ()

[SERVER STARTING] server has been started  
[LISTENING] Server is listening on 192.168.75.1  
[NEW CONNECTION] ('192.168.75.1', 54293) connected[ACTIVE CONNECTION] 6  
  
[('192.168.75.1', 54293)] Hello World  
[('192.168.75.1', 54293)] !DISCONNECT