

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

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```
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
```