# Assignment 1 and 2 Small Project

## **Chatting Between Peers**

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In this project Peer to Peer Application that runs on a Network. You will Write it in Java.

# **Project Parts (Assignments):**

## 1. **Part 1 (HW1)**

In this part, you are required to write Peer-to-peer Application Chatting Java UDP Socket Programming: Write a GUI application by using Java. Your program should have Text boxes, Buttons, Text Areas, Drop Downs etc. You should enter Source and destination IP addresses, port numbers. Also, you should display sent and received messages. See the sample for GUI Interface on Page 2. Two clients Are shown. The Buttons for Login, Logout, and the List of Online users is Not Required for This part. They are Required in Par2. Blocking Code is Not Accepted.

# Page 2 Shows Two Clients and sample GUI

#### 2. Part 2 (HW2):

In this part you are required to apply TCP Java Socket programming but we will add Two Parts:

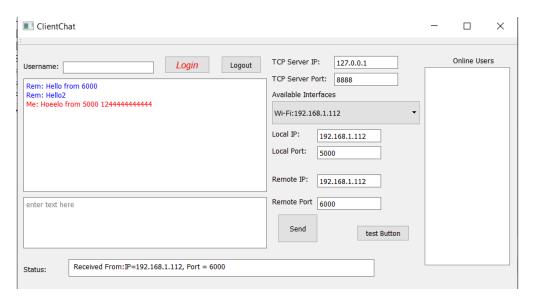
2.1 A TCP Client to the Application described in 1. This Client requires the additions of buttons to register to the TCP Server Described in 2.2. The Server will simply keep a list of UDP clients involved in the Chatting. The TCP Server will send a message to each TCP client in the Active Chatting Client described in 1 to inform it of the List of Active Clients. This is similar to Skype and other chatting Servers. The server just keeps a list of those that Active Chatting Clients. So, you will need to modify the code in 1 to accommodate this Requirement.

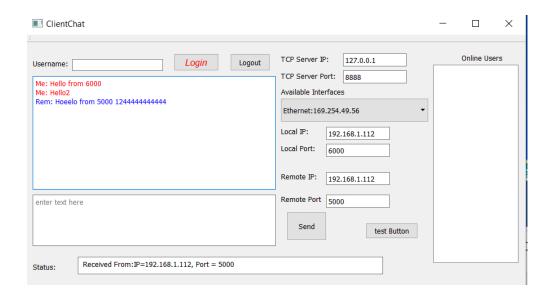
The Actual chatting will remain peer-to-peer. But the User chooses which Client to talk to from the List Provided by the Server. The login in the Clients is used for Registration to the TCP server to keep track of online Clients. You Should display the List of Active Client. See pages 3, 4

Add a TCP Server that keeps track of the Active Chatting Clients as described in 2.1. It should Show a GUI with the Active List of Clients. The login in the Clients is used for Registration. See pages 3, 4

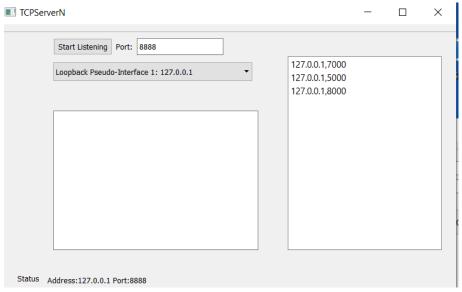
# **Blocking Code is Not Accepted.**

Part1(HW1): This Figure Shows Two Clients used in Part 1 and 2. The Login/Logout and TCP Server are not required in Part1 but will be Required in Part2.

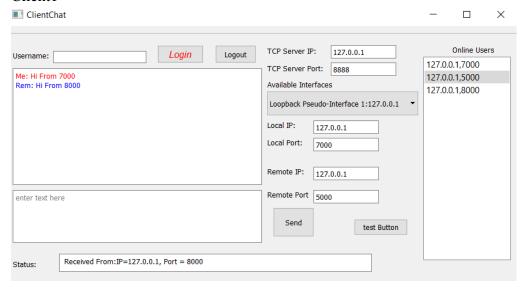




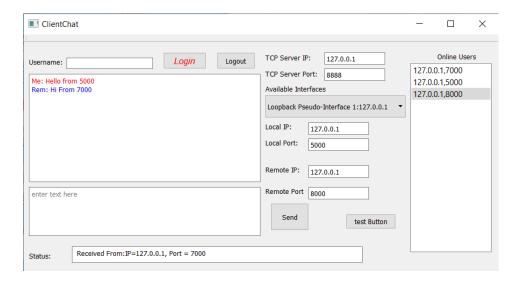
Part 2(HW2): Here we show The TCP Server and # Chatting Clients each has a UDP and a TCP Client in the Code. Same Code for the Clients



## Client1



## Client 2:



## Client 3

