

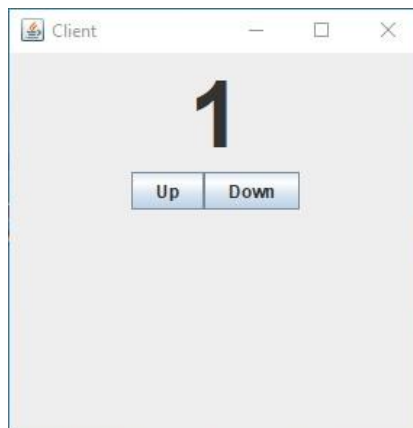
COMP2396B Tutorial 8

Java Web Socket server/clients communication and Multithreading.

In this tutorial, we are going to create a system that supports one server and multiple clients. This system contains an integer counter in the server and allows clients to increment and decrement the counter. When the counter is updated by one client, the value displayed on all client programs will be updated accordingly.

User-Interface

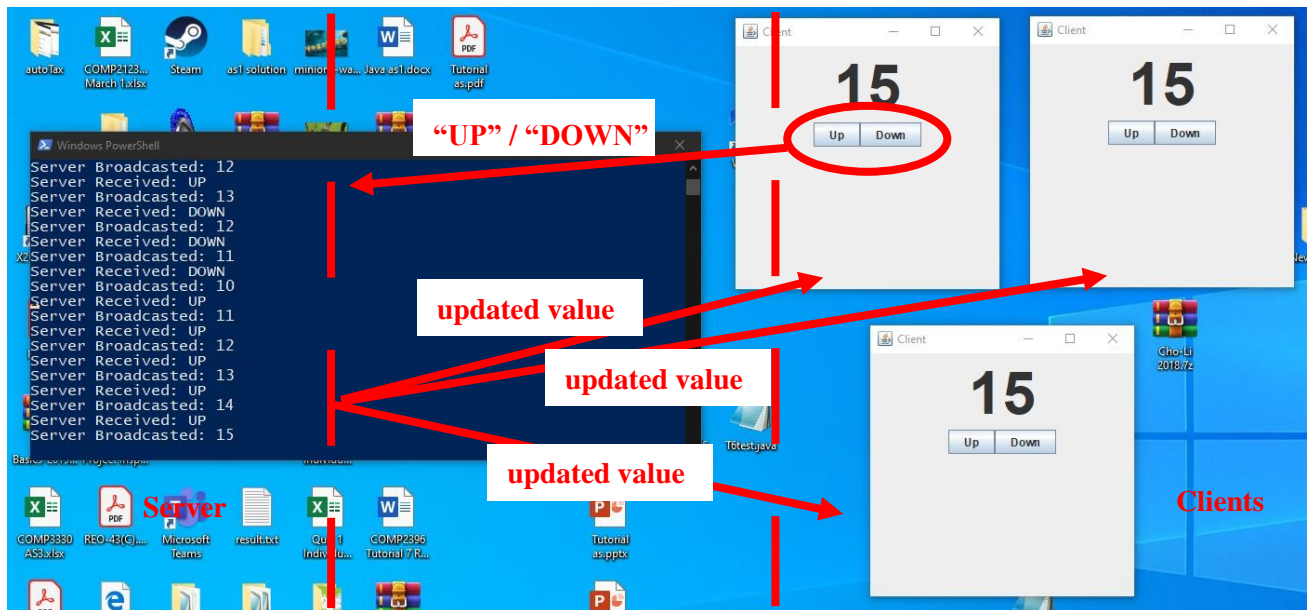
This is how the client program looks like. A label displays the value of the counter, which is received from the server. The “Up”/ “Down” buttons are used to send the “UP” command and the “DOWN” command to the server.



Server and client communication protocol

When the server received the “UP” / “DOWN” command. The server will increment/decrement the value accordingly and send the updated value to all connected clients.

1. One client sends the “UP” or “DOWN” command to the server.
2. The server updates the counter accordingly.
3. The server sends the updated value to all connected clients.



The server and client programs are given but with some code missing. Please fill in the missing code to make them work.