CST 8221 – JAP - Assignment #2, Part 1

Demonstration Date: week 13 of the semester **during your Lab period**

Earnings: 5% of your total course mark

Purpose: Building a Client GUI

The purpose of Assignment #2 is to build a simple socket based client/server application. In Part 1 of the assignment you are to build the client GUI. In Part 2 of the assignment you are to write the client and the server code. The server will be a multithreaded TUI type application.

Problem Specification:

In this part of Assignment #2 you are to build a relatively simple GUI for the Client Application. Your GUI must have exactly the same appearance as the one shown in Fig. 1 and Fig. 2 below:
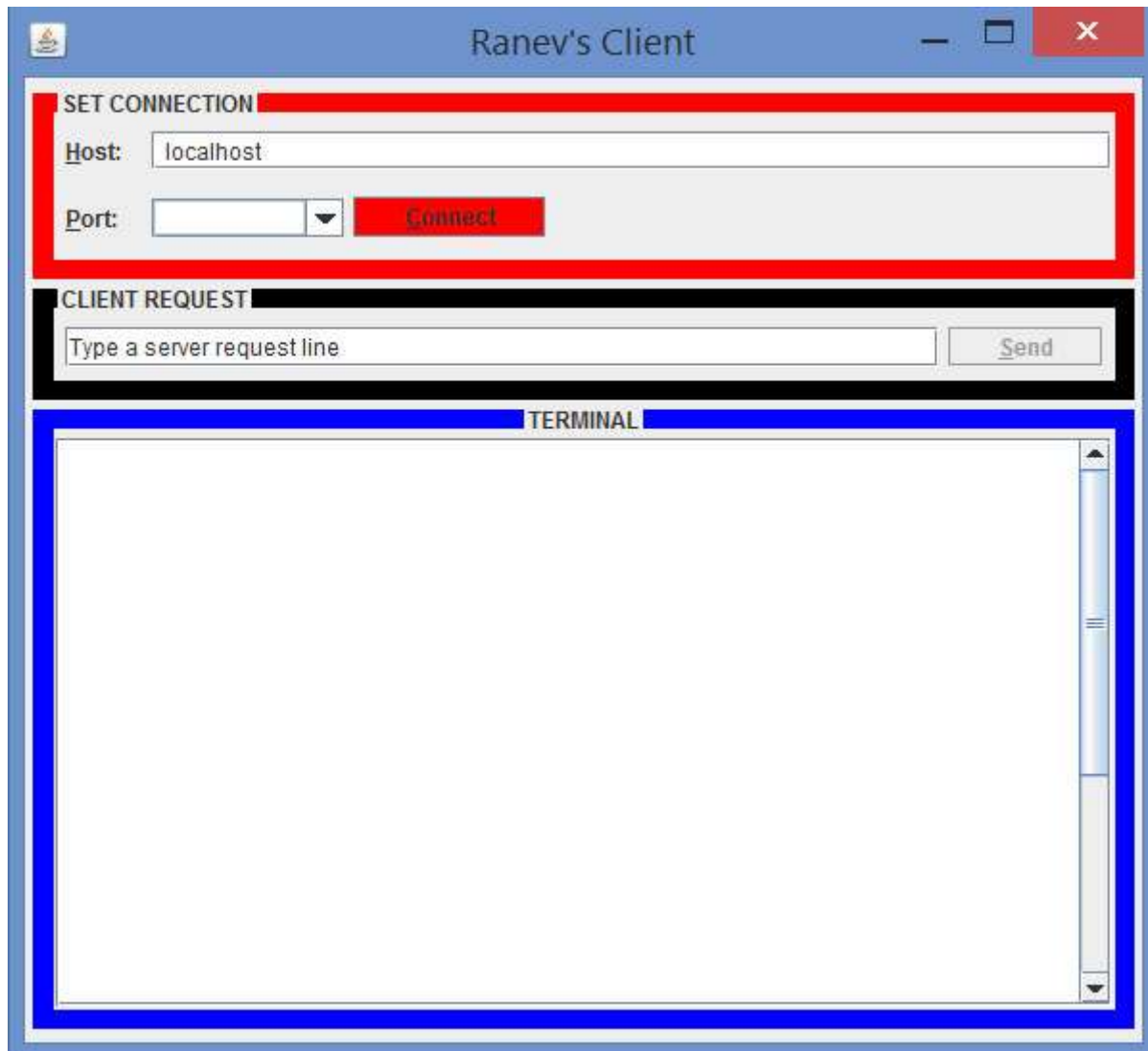
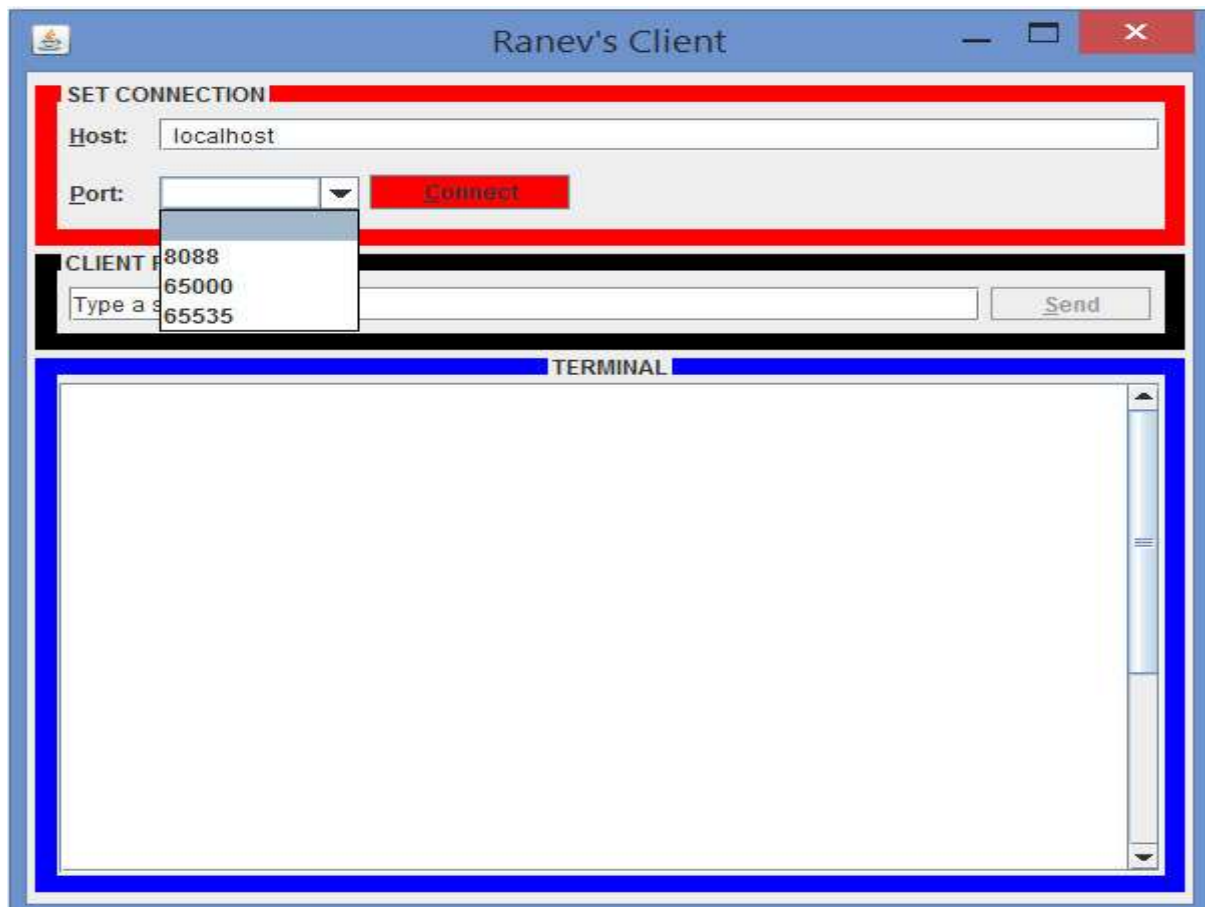**Fig. 1.** The Client GUI at launch.

Fig. 2. The Client GUI with Combo Box selected.

Requirements:

- ❖ The initial and the minimum size of the resizable frame is (600,550).
- ❖ The combo box and the **Connect** button have the same size.
- ❖ The text fields and the combo box must have white backgrounds and must be editable. The displayed text must be left aligned.
- ❖ The text area must not be editable.
- ❖ The preferred size of the **Host:** and **Port:** labels is (40,40)
- ❖ All buttons must have mnemonic.
- ❖ The **Send** button must be disabled at launch and must have the same height as the adjacent text area. The text area must display the specified text at launch.
- ❖ The labels must have mnemonic and when the corresponding Alt-Key is pressed the focus must be transferred to the corresponding test field or combo box.
- ❖ At launch the host text field must has the focus (the insertion caret (cursor) must be blinking at the beginning of the text field before in front of the latter l).
- ❖ The CONNECTION panel must have a red titled line border.
- ❖ The CLIENT REQUEST panel must have a black titled line border.
- ❖ The TERMINAL panel must have a blue titled line border with centered title.
- ❖ The frame title must contain your name.
- ❖ No event handling is required for this part of the assignment but for the second part you will need an event handler implementing the *ActionListener* interface.
- ❖ The GUI creation code must be placed in a class named ***ClientView.java***. The GUI must be instantiated and made visible in a class named ***Client.java*** (this class must contain only a main method).

Tasks:

Build the Client GUI. It must look exactly the same as the GUI shown in Fig. 1 and 2 above. The GUI screenshots have been taken under Windows 7 with the default "look and feel." If you are using some other operating platform, you may have a different "look and feel" but the properties of all of the components and their relative locations must be the same.

What to Submit:

No electronic submission is required for this part of Assignment #2 but you have to demonstrate you working Client GUI during the first 90 minutes of your Lab period during week 13 (Nov. 30th – Dec. 4th) of the semester.

Marking Scheme:

5 marks – The Client GUI must meet all requirements and must look exactly the same as the one shown in Fig. 1 and 2.

4 marks – The Client GUI looks exactly the same as the one shown in Fig. 1 and 2 but does not meet any two of the requirements.

3 marks – The Client GUI has all of the required components but they are not properly aligned and sized, or the GUI does not meet three or more requirements.

0 marks – The Client GUI is missing a component.

1 mark – Bonus: Make the host text field resizable so that when the GUI is resized its size changes as well. All other components (except the text area) must keep their original size.

Enjoy the assignment. And do not forget that☹

"To have a server you ought to have a client first."   Business Rule #1