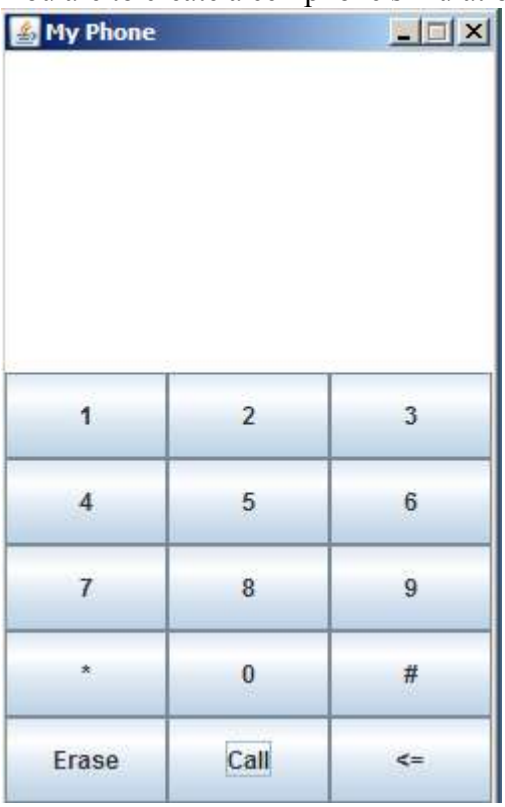
CECS 575 Program 1 Due Sep 15, no later than start of class in the Dropbox created for this assignment on Beachboard.

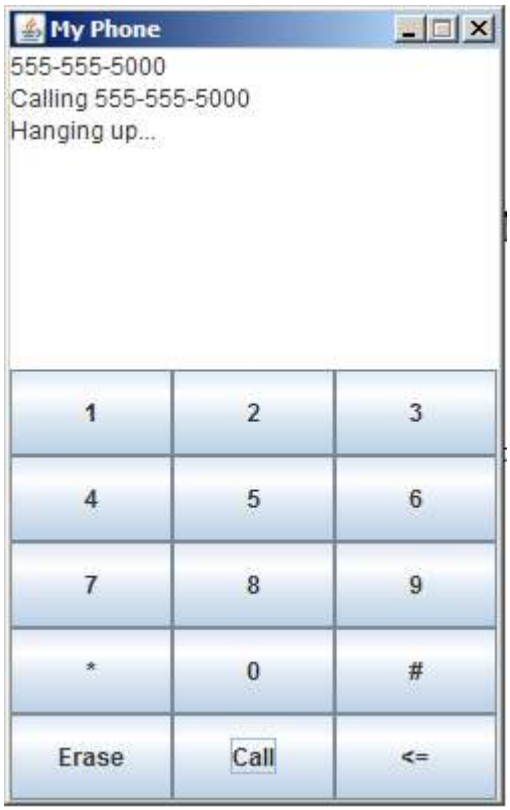
You are to create a cell phone simulation. The phone looks like:



The buttons function as follows:

1. **Erase** clears the screen content and erases the phone number.
2. **<=** back spaces and erases the last character on the screen if entering a phone number. <= does nothing while a call is taking place.
3. **Call** attempts to "call" the entered number. The phone number must be either of format ###-#### or ###-###-####. Pressing **Call** with any other number print "Ill formed number" on the screen.
4. Pressing any digit key adds that digit to the phone number. As the number grows, it must be formatted correctly.
    a. After the first three digits a '-' must be inserted at position 4.
    b. If the number grows beyond seven digits and a dash, a second dash must be inserted at position 8.
    c. In no case may more than 10 digits be entered.
    d. Pressing <= has no affect on the format - just erase whatever the last character is be it digit or -.
5. The * and # have no function - yet. You may create behavior for them.

When making a call, all buttons but the Call button are disabled. Pressing Call while calling results in the call hanging up. A **THREAD** is started when the call is hung up. The **thread** counts for **5 seconds** then erases the display.



Don't implement the phone in main or the main class - create a separate phone class and make that class a thread. Thread can't be launched from the action listener so you'll need to call a method of the phone class to start the thread.

The phone dimensions are phone frame 250 x 400 pixels.

About 220 lines with comments.

In the console output, trace the commands as they are entered - even the ignored commands.

I did this in Java. If you can meet all the requirements you may use C++, C#, or any OO language provided all the "phone" state and behavior reside in a class.