Lab 5

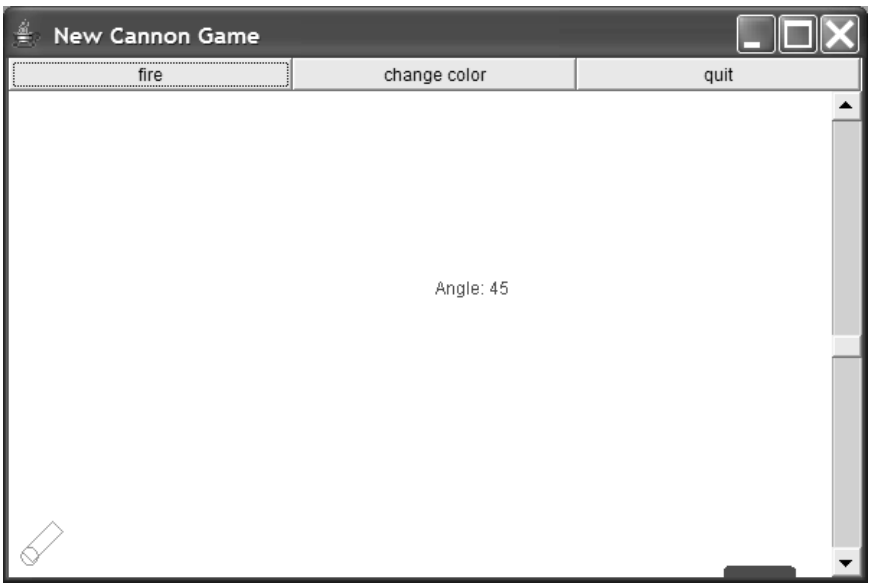
Goals:

- Learn about BorderLayout and GridLayout managers
- Learn about the event-driven programming by using AWT Buttons and sliders
- Explore and experiment with the Cannon Game code

Part A: Download and Cannon World

Using the Konqueror browser, go to the course web-page: http://www.cs.uni.edu/~fienup/cs062s06 and click on the Lab5.zip link and "Save to disk" in the cs2 subdirectory created in lab 1. In a shell window, change to the cs2 subdirectory. Use the "ls" command to list the files in the directory and look for the file "Lab5.zip". Decompress the "Lab5.zip" using the command "unzip Lab5.zip", then change to the Lab5/changingColorCannonWorld subdirectory. Compile and run CannonGameDriver.java. (You might need to modify the `Thread.sleep( 40 )` line in the drawCannonBall method.)

Modify the CannonWorld so that there are three buttons in a panel along the North side of the frame: the "fire," "change color", and "quit" buttons.



To achieve this you'll need to make the following modifications to the CannonWorld.java file:

1. Create a QuitButtonListener inner-class that implements ActionListener. The QuitButtonListener should have an actionPerformed method that contains a single statement: "System.exit(0);" This will cause the application to terminate.
2. Create a ButtonPanel inner-class that extends Panel. The ButtonPanel should consist of only a constructor method that performs the following:

   * set the layout manager for the Panel to GridLayout(1, 3) (*see MemoPad for an example*)

   * for each button, it will need to construct the button, connect up the button with the appropriate ActionListener, and add the button to the panel.
3. Modify the drawing of the cannon back to its original position along the left side of the frame.
4. Finally, try to fix the angle-slider so that down changes the angle to smaller values instead of larger.

When finished, turn in a print-out of your modified CannonWorld.java file. (include you name on it)