Lab 0B: Java — GUI Programming

CS 205

Lab objectives:

- Use Java Swing components and layouts.

- Use event-driven programming.

- Use test cases to ensure that your code behaves as required.

Follow the steps in this lab carefully and complete the assignments.

1. Download the lab0bStarter zip file from the course web site. Import it into Eclipse, try it out, and verify that you understand all the code.

2. Modify the class to include a second JTextField (as well as a JLabel for it) that serves as an input box. When the user types a number in the box and hits enter, that number will overwrite the value in the counter JTextField. (Add an ActionListener to handle this event.) You should use a GridLayout to make everything looks nice in the JFrame. You will also want to use the Integer.parseInt method to convert the text in the box into an integer. What could go wrong here? Test that!

3. Modify the class so that when you click on the "Counter" label it changes to "Decrementer" and changes the text of the button to "Decrement" as well. If you click on the label again, it will change back to "Counter" and the text of the button changes back to "Count." The button in decrement mode will subtract from the count, rather than add. To accomplish this, you will add a MouseListener to the label. What could go wrong here? Test that!

4. When you are satisfied with your project and documentation, export the project and submit the project in Canvas.