

SYSC 2004 Object-Oriented Software Development

Lab 11

Lab 11:

Background Reading

- *Objects First with Java*, Chapter 13.

Objective

The objective of this lab is to gain further experience with Java GUIs.

Getting Started

1. Download file `counter-v3-upd.zip` from cuLearn. Save the file to the desktop.
2. Right-click on the `counter-v3-upd.zip` folder and select **Extract All...** to extract all the files into a folder called `counter-v3-upd`.
3. Launch BlueJ and open the `counter-v3-upd` project.

Part 1 - Changing the GUI Layout

1. Update the constructor of the `Counter` class as follows:
 - a. The top level layout is a vertical box layout with three components:
 - i. The top sub-component is a horizontal box layout with three components:
 1. Up button
 2. Down button
 3. Reset button
 - ii. The middle sub-component is a border layout with two components:
 1. The label (west)
 2. The count (east)
 - iii. The bottom sub-component is the scroll pane containing the history text area.
 - b. Update the code so that the user may **not** resize the window.
2. Ensure that you have explained your changes in your comments.
3. Get Part 1 checked by a TA.

Part 2 - Adding Another Button

1. Add a fourth button to the top sub-component. This button is to be labelled "Random". It will change the count to a random number in the range of MINIMUM to MAXIMUM. This button is always enabled.
2. Ensure that you add comments explaining this change.
3. Get Part 2 checked by a TA.

Part 3 - Adding Another Menu Item

1. Add a third option to the menu. The new menu option is "Clear" (also activated by entering Ctrl-C). When it is selected, the history text area is cleared.
 2. Ensure that you add comments explaining this change.
 3. Get Part 3 checked by a TA.
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