

Homework 1

Buttons and Callbacks

due before class on **September 7th**

Outline

In this assignment, students will create a GUI that allows us to keep track of “submissions”. Users will make selections among several groups of radio-buttons, and will be able to “submit” a selection, and to print a history of the submissions that have been made.

Students will turn in their submissions using iCollege. Students should submit a zip-file containing their project directory. Students should ensure that their code is submitted in a buildable form.

Interface

Students should create a GUI containing the following elements:

- a check-box and a group of three radio-buttons; these should be arranged in a column on the left edge
- another check-box, with another group of three radio-buttons beneath it, next to the first column
- two buttons, a “submit” button and a “print” button, in a third column along the right edge.

Each component should maintain its positioning as the window is resized – that is, the two check-and-radio-columns should stay aligned against the left edge, and the two buttons should stay close to the right edge.

Events

When the “submit” button is clicked, a message should be added to the widget’s internal message history. The message should be determined as follows: if the first-column check-box is selected, then the text of the radio-button in the first column should be included in the message; then, if the second-column check-box is selected, then the text of the radio-button in the second column should be appended to the message. (You may include more information and formatting in the messages.)

When the “print” button is clicked, all of the messages that have been submitted should be printed to the console, one per line.

(Note that the message history is not a graphical element of this GUI; the only time we should see it is when it is printed to the console.)

Graduate Students

Additionally, graduate students should arrange it so that, when each check-box is *unchecked*, the radio-buttons beneath it are *disabled*, and when they are *checked*, the radio-buttons are *enabled*.