

Text and GUIs

Purpose

to become familiar with the operation of JAVA Swing text components.

Due Date

The completed lab assignment is due Friday, 2018-04-06 *by the beginning of lecture*.

Text Boxes

- ⇒ Using the Oracle documentation, determine what the parent class of `JTextArea` is, and what all of the subclasses of that class are. Put this information in a plain text file called `Swing-Text-Components.txt` and include it in your submission with this lab.
- ⇒ Create a simple GUI for calculating travel expenses that looks something like the illustration shown in Figure 1. Each of the fields to the right of “Food”, “Hotel Cost”, “Transportation”, and “Incidental”, should be editable text fields (perhaps `JTextFields`).
These fields should be large enough to contain a number like 375.42.
When the `Calculate` button is pressed, the value in the “Total Cost” field should be set to the (textual representation of the) sum of the numeric values in the fields above.
If one of the fields above contains a value that cannot be converted to a number when the `Calculate` button is pressed, the text in that field should be displayed in bright red, and the total cost field should be grayed out.
Use `.setToolTipText` on various components, to supply “helpful” information like “Enter hotel costs in Canadian dollars here”.
- ⇒ [BONUS.] Try changing the text field components to use `JFormattedTextFields`. These components are designed for the task at hand, and have a notion that the text field has an associated value that can be set and queried. They also support noticing change in focus.
- ⇒ [BONUS.] If you can, eliminate the `Calculate` button, so that the form auto-updates.

Food	<input type="text"/>
Hotel Cost	<input type="text"/>
Transportation	<input type="text"/>
Incidentals	<input type="text"/>

Total Cost	<input type="text"/>
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Calculate

Figure 1: A simple expense form