

Lab 5 - Calculator with JavaFx

Introduction

This project is about designing a calculator using the JavaFx. This will illustrate the principles of object oriented programming, GUI design, and event-driven programming.

Classes

There will be one class in this project called Calculator, and it will be under the package calculator. The Calculator class will extend javafx.application.Application.

The calculator will be designed in a BorderPane, the top will be an HBox pane that holds a textfield that displays our results.

- Textfield
- Font will be Arial, Bold, 20 px

The center pane will hold a GridPane (4x4) that has all our buttons defined. Each button will be handled by the same method **handleButtonAction()**; This method will perform all calculations and modify the display of our calculator, the result of our calculations will be a double.

Scenario example:

- If 1 is clicked, "1" will display in the text field.
- If then 2 is clicked "12" will display in the text field.
- If then + is click "" will display in the text field (display is cleared, and 12 will need to be stored in memory)
- If then 3 is clicked, "3" will display in the text field.
- If then 6 is clicked "36" will display in the text field.
- If then = is clicked "48.0" will display in the text field. (12 and 36 are added together as doubles)

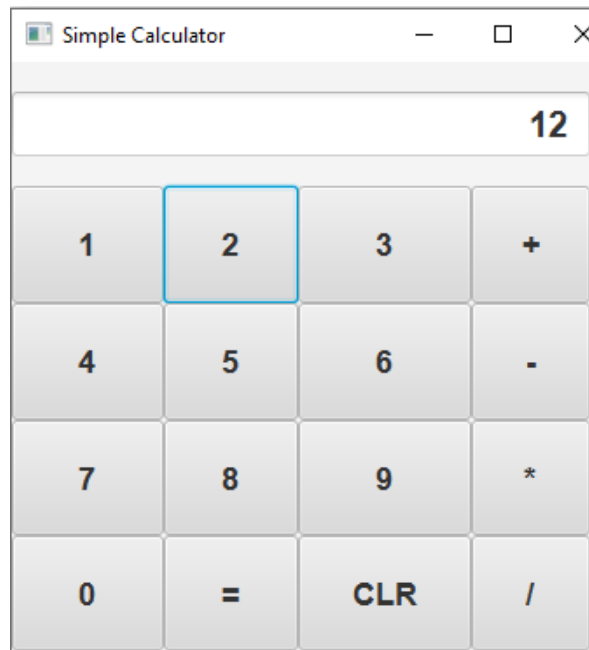
Scenario example:

- If 1 is clicked, "1" will display in the text field.
- If then 2 is clicked "12" will display in the text field.
- If then CLR is click "" will display in the text field (all values are and operations are wiped)
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Scenario example:

- If + is clicked, "" will display "NumberFormatException"

Sample display:



Submission

After completing this lab, the submit the **COP3809_LAB5_SYY_XXXX.zip** (YY = 01, 02 or 03, XXXX = Student Id) file on canvas.