Simple Calculator

1 Objectives

Upon completion of this assignment, you will be able to:

- Develop a simple GUI to input and display application data.
- Apply OOP principles to your GUI code.

2 Description

It is required to implement a simple calculator that supports the following:

- Addition, subtraction, multiplication and division of two real numbers.
- An example of the input: 5+3 OR 2.654/69 with no more than one operation and no brackets.
- Use double to hold the resultant real numbers.
- GUI The input to calculator is done using buttons or by writing the full operation in a text-area.
- GUI The output should be displayed on a label.
- Handle different special cases and show error dialogs when necessary.
- You should save history of the last 5 operations and allow the user to view or repeat any of these operations.
- Navigation through next/previous will update current.
- User can save history in file and load it.
- The best design is to implement the interface and make sure all the logic is working, then create a new class for the GUI. The GUI class shall work with the interface and not with the concrete class directly.
- Download the project from bitbucket.
- Organize your code under package with name eg.edu.alexu.csd.oop.calculator.cs<your-two-digits-class-number>

3 Deliverables

- The implementation of the given interface.
- This assignment is individual.
- Develop this assignment in Java.

- You should deliver your source code and program executable jar using your git repository.
- You are allowed to use any graphics libraries (e.g. Swing or SWT), but text-mode user interface is not allowed.
- Delivering a copy will be severely penalized for both parties, so delivering nothing is so much better than delivering a copy.

4 Hints

- It is highly recommended to use Regex for parsing operands and operator.
- For GUI you can use WindowsBuilder GUI plugin in eclipse/netbeans for building the GUI by drag & drop.

Good Luck