CIS195 Homework 01.c

Calculator: Putting it all together

Due: ***Monday, February 11th at 11:59PM***

Goal: To bring your calculator to a fully working state.
What you will submit: The link to your calculator repository. Please do this even if you've already submitted the same link for your previous assignments. (This makes our lives a lot easier.)

This week, you will extend your project so that you can actually perform computations through the user interface.

1. **Go back to your calculator plan** and lay out your plan more concretely. Think about what we've talked about in class this week, like particular data structures that might help, and object oriented design. This might seem like a lot since it's your first big iOS project, but the best way to learn is to dive right in and try it out.

2. **Before you start coding** make sure you've got exception breakpoints enabled in your project to make debugging easier. Go to our lecture notes from this week for instructions on how to set them up.

3. **Start playing around.** Connect some buttons to actions. Create an outlet for the label or text field that you are using to show the computation.

4. **Dive in.**

Below are the minimum requirements for your app:

Basic calculator specs:
- Supports *infix* notation (see **git.to/infix**).
- Supports addition, subtraction, multiplication, and division.
- Supports decimal numbers.
- Supports negative numbers.
- Abides by correct order of operations.
- Handles divide by zero elegantly (e.g. ∞, NaN).
- Allows user to clear their input.

In general, we give generous amounts of extra credit for optional features and any features that you think would be useful and decide to implement (we like creativity!).

Optional (Extra Credit)
- Supports parentheses for changing order of operations.
- Supports exponentiation.
- Supports input like **π**, **e**, etc.
- ... and whatever else you think would be useful!

5. You are encouraged to keep tweaking your UI if you think of new ideas or want to make small modifications.

6. If you get stuck, you are welcome to post on Piazza or come to office hours. We're here to help!

7. Have a few friends try and use it. They might find design or logic related issues that you haven't thought of. Plus, why wouldn't you want to show off your new iOS app? :)

8. When you are done, submit your repo link at **git.to/hw01c**. (Make sure you've pushed your latest commits.)

   If you used any outside resources, please note them in the comments section of the submission form or add them to your README.

9. Congrats, you've built your first significant iOS app!

What you will be graded on:
You will be graded on the requirements that we've listed out on the assignment. We'll give you feedback on coding style, but won't explicitly dock points off for style issues. However, we will start grading on style after this assignment, so please try to follow good object-oriented principles and basic style rules (like consistent indentation and spacing, etc.).