CS2048—Homework 1

Reading

Read the following sections of the language guide

Section	Special attention to
The Basics	Constants and Variables, Type Safety and Type Inference, Optionals
Basic Operators	
Strings and Characters	Strings Are Value Types, String Interpolation, Counting Characters
Collection Types	Mutability of Collections, Arrays
Control Flow	Switch
Functions	Defining and Calling Functions, Function Parameters and Return Values, Function Types
Closures	Closure Expressions, Trailing Closures
Enumerations	Enumeration Syntax, Matching Enumeration Values with a Switch Statement, Associated Values
Classes and Structures	Comparing Classes and Structures
Properties	Stored Properties, Computed Properties

Programing Assignment (due Sep 20th)

Continue the calculator app we started in class. Add the necessary buttons **and** the logic necessary to implement the following operations: +, -, ×, ÷, +/-, %, AC, . (decimal point).

- Use color on the UI, make the operation buttons look different than the number ones.
- You might want to add a `isPartialResult` property to your code to keep track pending binary operations (+, -, ×, ÷).
- Highlight current operation button (like the iPhone calculator).

Tests

In order for your assignment to receive an "S" grade the calculator must compile and pass all the following tests:

- Prevent the user from adding multiple decimal points in a number (e.g., user shouldn't be able to enter "0.12321.121.11").
- When the calculator starts up it should display the number 0, pressing 0 multiple times should not change the display.

- The button -/+ should not change the display for the number 0.
- Your calculator should be able to re-apply the same operation multiple times. So if the user hits the following sequence of keys ~~"7", "+", "1", "+", "+",~~ the final result should be 10. The same applies to any of the binary operations. "7", "+", "1", "=","=", "="

What to Hand In

Submit, via CMS, the entire project directory. If you project is called `MyProject`, Xcode will create a directory called `MyProject`, with a file called `MyProject.xcodeproj` and a subdirectory `MyProject`, please submit the **top level** `MyProject`.

Honesty and Integrity Policy

Projects are to be done individually. You may collaborate on the whiteboard, but each student's code must be their own.