Homework Week 2

The purpose of this assignment is to demonstrate your understanding of views, view controllers, and the relationship between them; view controller containment and navigation; Interface Builder, actions, and outlets; the view loading process; and implementing delegate methods.

In addition, this assignment is designed to increase your familiarity with the process of reading and using Apple's documentation, as well as other external resources like StackOverflow. Some portions of the assignment leave implementation choices to you.

In order to successfully complete this assignment, you must successfully implement all of the Functional Requirements below. As with all apps that you submit for this class, you should also:

- Ensure that your app does not crash or behave in an unstable manner
- Make use of good design patterns (e.g. MVC) and structure your app accordingly
- Follow the Human Interface Guidelines when designing your app's UI
- Test your app on an actual device running the latest version of iOS

Functional Requirements

The app should consist of two view controllers managed by a tab bar controller. The two tabs should be named "Colors" and "Data." This assignment includes images colors.png and data.png, each with a corresponding @2x variant; the app should display these images in the appropriate tabs.

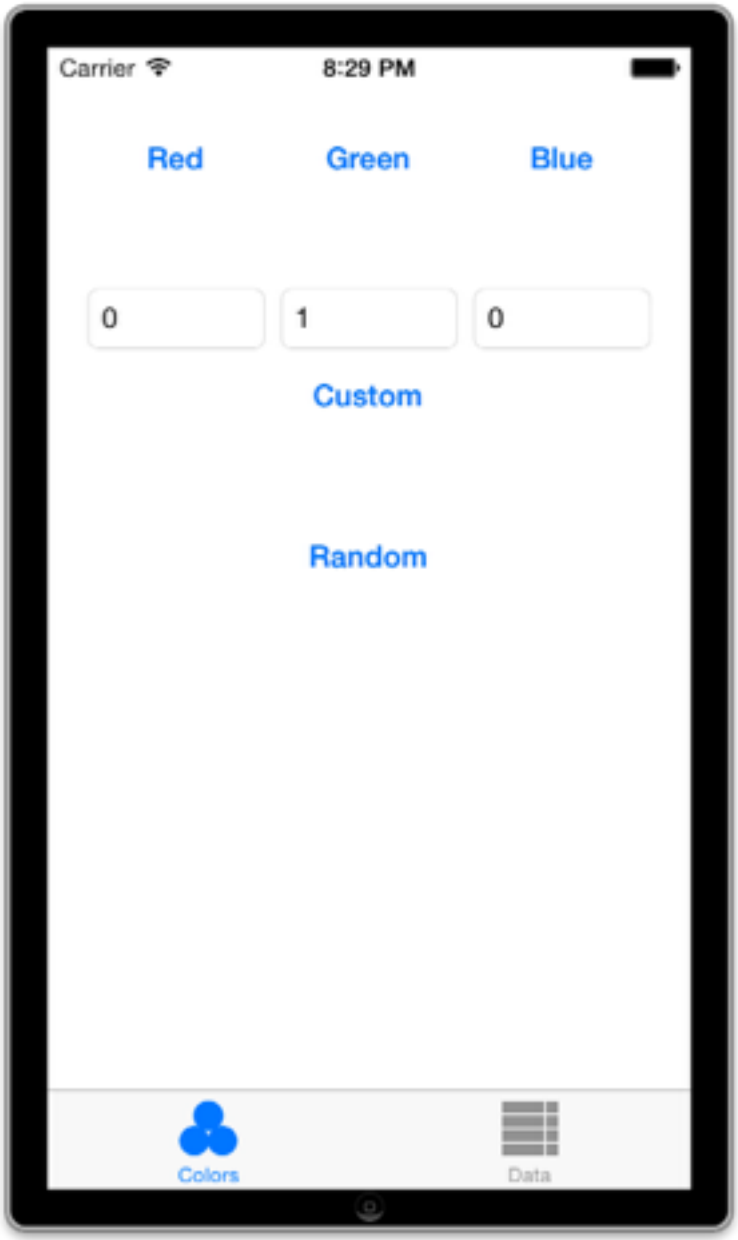
Colors tab

On the first tab, you should include five buttons and three text fields:

- Three buttons labeled "Red," "Green," and "Blue" in a row
- Three text fields in a row immediately above a "Custom" button
  - The text fields should have placeholder text of "red," "green," and "blue"
- A "Random" button

When any button is pressed, you should display a modal view controller with the appropriate background color:

- For the "Red," "Green," and "Blue" buttons, use a solid background of that color
- For the "Custom" button, interpret the text fields' text as floating-point values and create a new UIColor from those values
- For the "Random" button, use a random color[1]



The modal controller that you present should display two things:

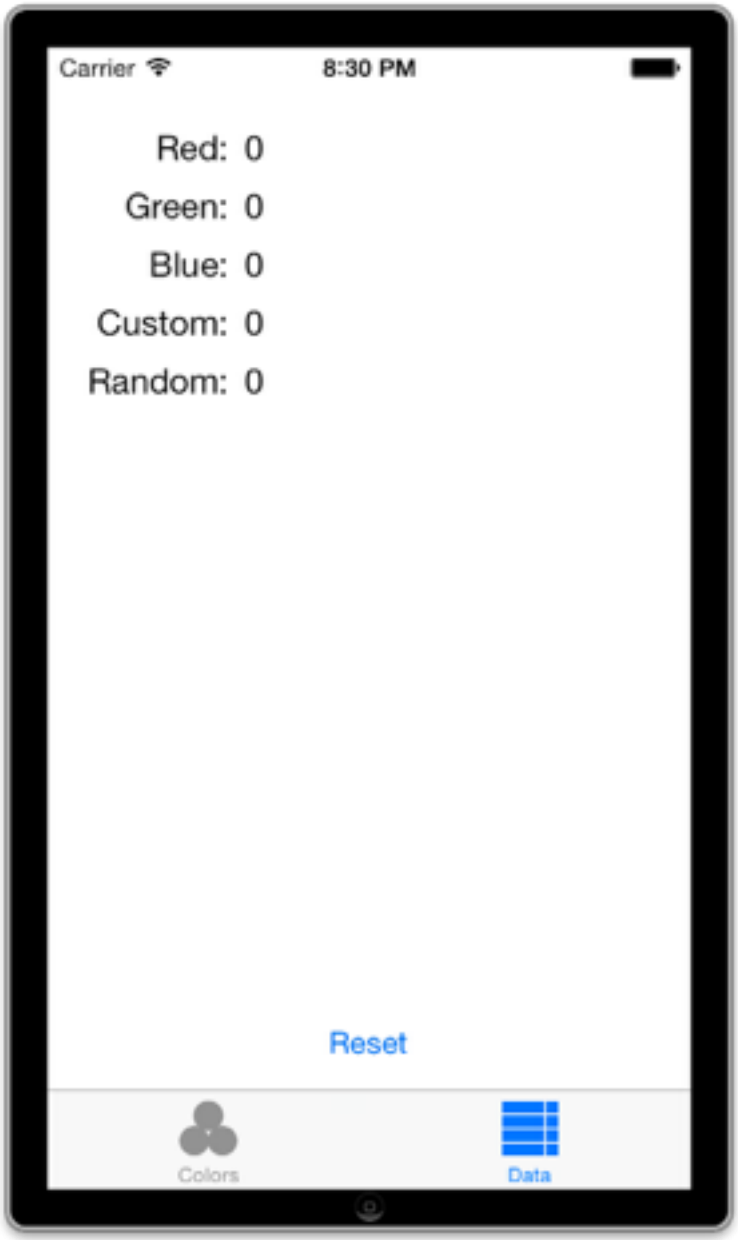
- A "Dismiss" button that, when pressed, dismisses the modal controller
- A label that indicates how many times the original button was pressed

[1] This assignment includes a category UIColor(UWExtensions) to help you create a random color.

Data tab

On the second tab, you should include five rows of two labels each. Every row should have:

- One label that names a modal controller color (“Red,” “Green,” “Blue,” “Custom,” or “Random”) from the first tab
- One label that gives how many times that color has been presented



Carrier 8:30 PM

Red: 0

Green: 0

Blue: 0

Custom: 0

Random: 0

These counts should update as often as necessary so that they never appear inaccurate.

In addition, the second tab should have a large button labeled “Reset”. When pressed, the Reset button should present an action sheet prompting the user to reset the counts shown on the Data tab. This sheet should have two buttons:

- A “Reset” button; if pressed, all counts should reset to 0
- A “Cancel” button; if pressed, the counts should remain unchanged

Your action sheet should follow the button placement and color guidelines specified in Apple’s documentation. Most importantly:

- The Reset button is the “dangerous” action and should therefore be red
- The Reset button should appear above the Cancel button

Submitting Your Work

This assignment is due by 11:59pm Pacific Time on Wednesday, January 29. To submit your work, upload a .zip file to the appropriate drop box that contains your entire Xcode project directory, including:

- Your .xcodeproj bundle and all its contents
- All your source files, including code, .xib files, and any image resources
- Any additional files that your app requires to run

Name this zip file "UW_HW2_<*UW NetID*>.zip", where <*UW NetID*> is the username assigned to you by UW. (For example, the instructor's submission would be named UW_HW1_cartej.zip.)

Your submission should compile cleanly on the first try, throwing absolutely no errors, warnings, or static analyzer problems. You may lose points if your solution does not compile cleanly.

Your submission should, once compiled, run well on an actual device running the latest version of iOS. You may choose to support past versions of iOS, but all testing will be done on the newest version available on the due date.