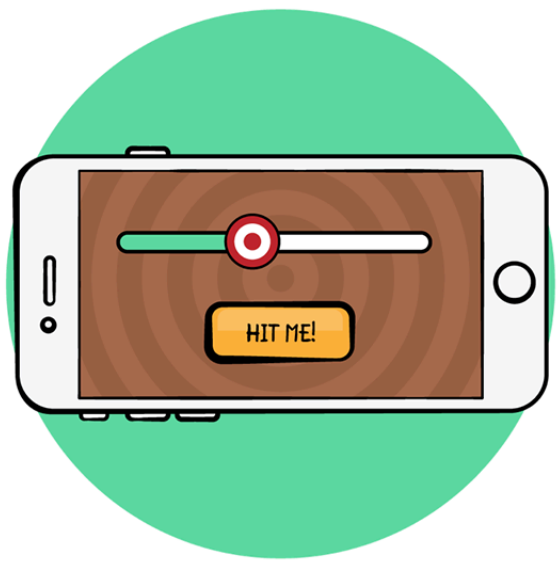


BEGINNING iOS 10

PART 1

GETTING STARTED



HANDS-ON CHALLENGES

Beginning iOS 10 Part 1: Getting Started

Brian Moakley

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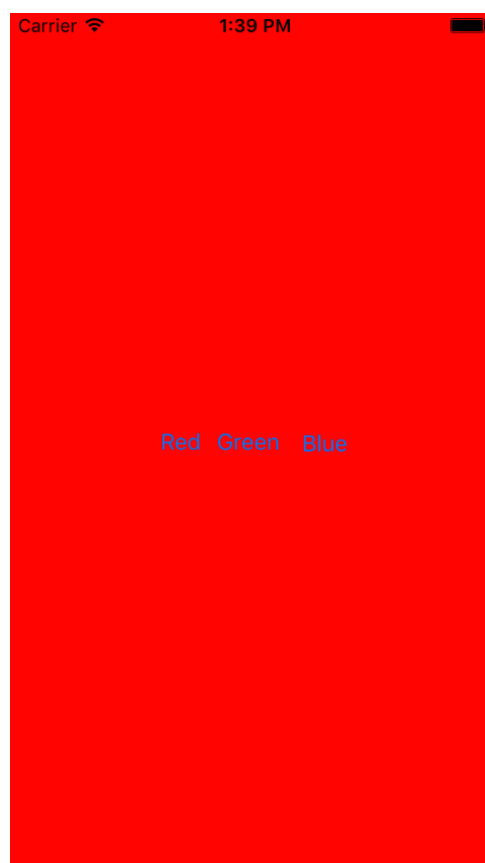
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Challenge #2: View Controllers

By Brian Moakley

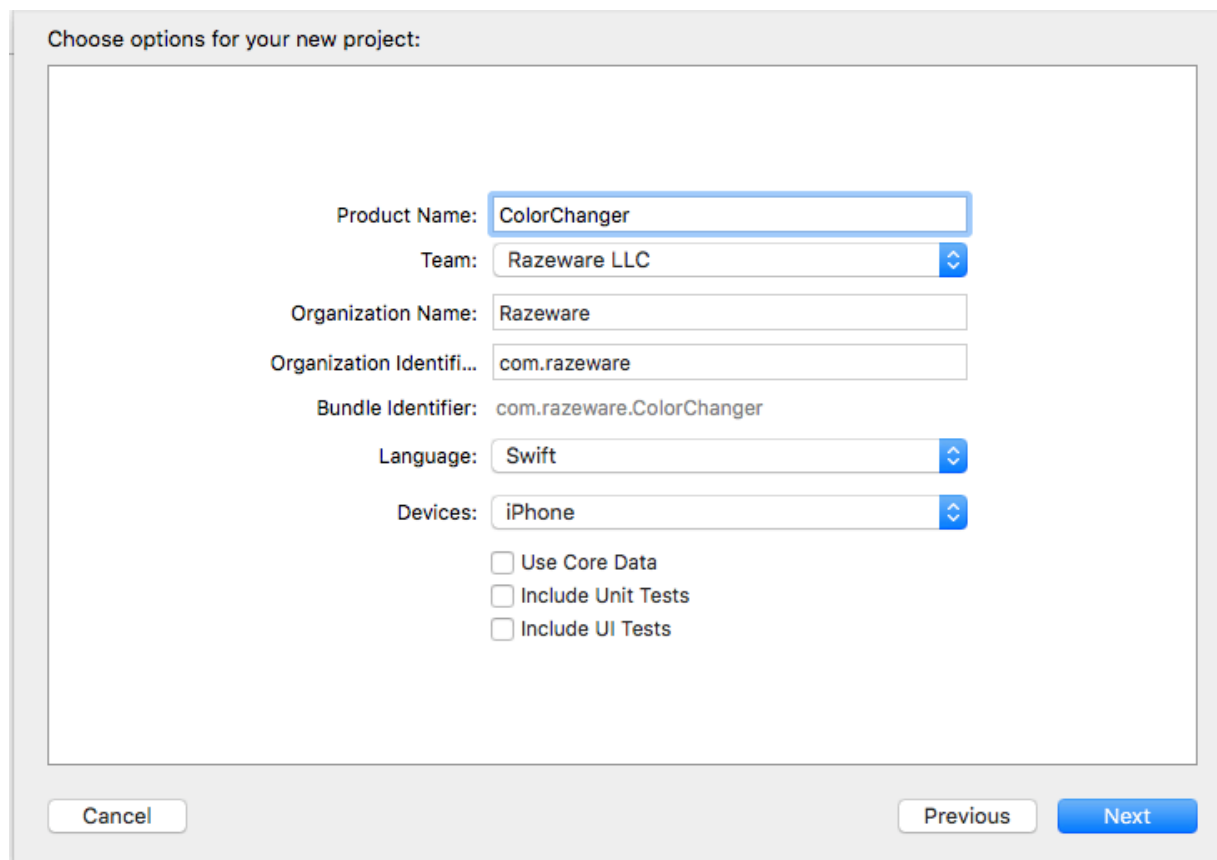
In this challenge, your job is to create a view controller that has three buttons: **red green blue**. When the user taps on the button, the background view will change to that color.



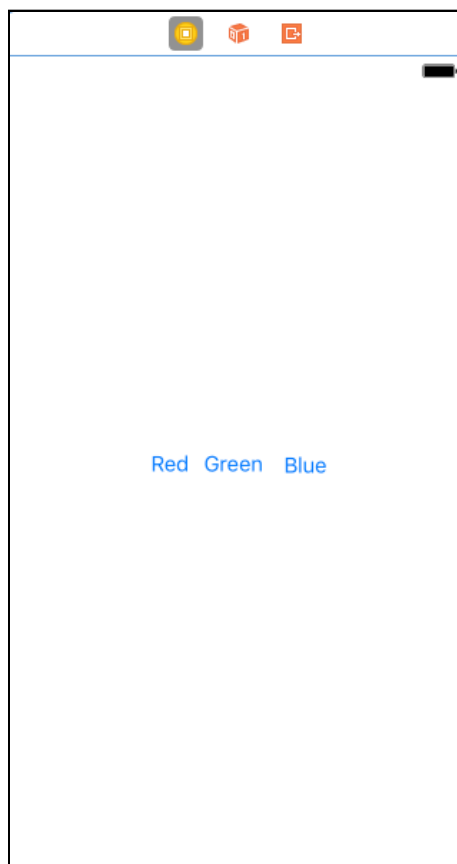
This challenge document will provide the code to color of the background. Your first task is to get setup.

Setting up the Project.

Start Xcode, and from the menu, select **File\New\Project**. From the template listing, make sure **Single View Application** is selected and click **Next**. Give it the name **ColorChanger**, making sure the **Language** is set to **Swift** and **Devices** are **iPhone**. Save this new project to your desktop.

The image shows the 'Choose options for your new project' dialog box in Xcode. The dialog has a title bar and a main content area. The content area contains several fields and checkboxes. The 'Product Name' field is highlighted with a blue border and contains the text 'ColorChanger'. The 'Team' field is a dropdown menu showing 'Razeware LLC'. The 'Organization Name' field contains 'Razeware'. The 'Organization Identifier' field contains 'com.razeware'. The 'Bundle Identifier' field contains 'com.razeware.ColorChanger'. The 'Language' field is a dropdown menu showing 'Swift'. The 'Devices' field is a dropdown menu showing 'iPhone'. Below these fields are three unchecked checkboxes: 'Use Core Data', 'Include Unit Tests', and 'Include UI Tests'. At the bottom of the dialog are three buttons: 'Cancel', 'Previous', and 'Next'. The 'Next' button is highlighted in blue.

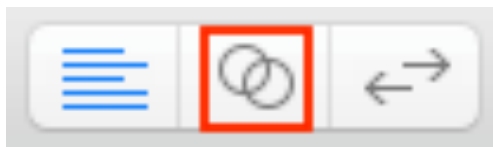
Select the **Main.storyboard** file and drag **three** buttons to the middle of the existing view controller (they should snap into place as you drag them). Double-click each button to change the text and name them: **Red Green Blue**. It should look as follows:



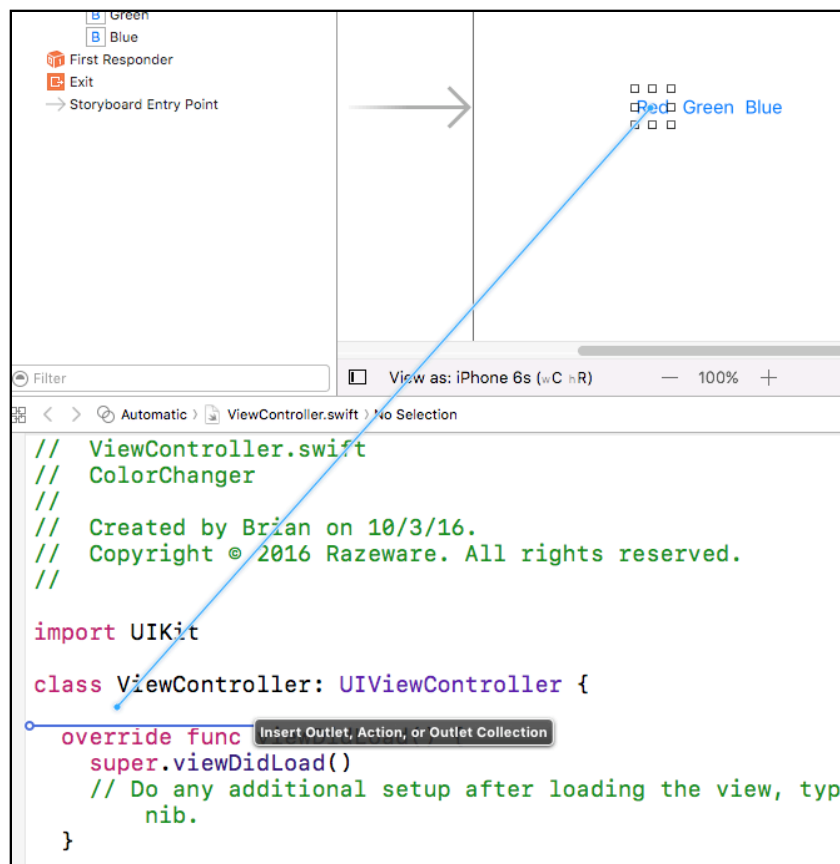
Congrats ... you have your project setup!

Changing the Color

Now comes the time to change the color of the buttons. The easiest way to do this is with the Assistant Editor. In the toolbar, select the icon with two circles intersecting:



You should see the ViewController code appear beneath the storyboard. Now select the red button and **control drag** from the button to the code like so:



When you release it, you'll be presented with a small dialog box. Set the **Connection** to **Action**, **Name** to **tappedRed**, and **click** the **Connect** button. This will create a new IBAction which allow you run code.

In **ViewController.swift**, update the new method to look like the following:

```
@IBAction func tappedRed(_ sender: AnyObject) {
    view.backgroundColor = .red
}
```

This changes the color of the backing view to red. You'll learn the difference between views and viewcontrollers as you progress in iOS. For now, think of the view is a drawing surface whereas the view controller is the object that manages the drawing surface.

At this point, the rest is up to you. Create IBActions for **tappedGreen** and **tappedBlue**. Here's the code to change the colors for the other buttons.

```
view.backgroundColor = .green
view.backgroundColor = .blue
```