Test 1 1/24/14 Mobile App Development

1. Start Xcode
2. Create a new project from the **Single View Template**. Call it **test1pgm1**. Leave “**Use Core Data**” unchecked. Device type should be **iPhone**. Let Xcode create the git directory for you when creating the project.
3. Run the program and see a blank screen on the simulator.
4. Create a button called “Swap”
5. Create a label called “Color Swap” (the text says Color Swap)
6. Create an action for the button called **swap**:
7. Create a reference (Outlet) for the label and call it **myLabel**.

At this point, you should have a stub for the action that you need to fill. Our goal is to change the text color of the label from red to green and back to red each time the button is pressed. One press gives you red, the next press gives you green and so on.

There are two methods you need to know; one is the method to change the color of the text, and the other is how to specify the color. Colors are created with a class called UIColor. UIColor has class methods that return a particular color.

Using Xcode help, bring up the class definition for UIColor and find the two class methods that return preset component values, one for red and one for green. To use them you send the message to the class and get the return value. For instance if you wanted brown, you would say [UIColor brownColor].

The property for the text color of a UILabel is **textColor** and that property is shown below:

@property(nonatomic,retain) UIColor \*textColor;

We wrote our own accessors in class. Properties save you from needing to do this. They use the same syntax that we used when creating our accessors. Since you know the property you know the accessor or ‘setter’. Write that here.

\_myLabel.textColor = [UIColor color]

You should know enough now to write a statement which sets the color of the text in the label you created to red or green. Write the two statements below. One statement turns the text red, and the other statement turns the text green.

\_myLabel.textColor = [UIColor redColor];

\_myLabel.textColor = [UIColor greenColor];

1. Now *inside the method* called **swap**, create a static integer called **color**. Use this variable to help toggle the color between red and green (i.e. color=1 means green perhaps) and use an **if** statement to choose between the two statements you wrote in the previous step. (Extra credit: why a static variable?)

A static variable does not get destroyed after the method returns. If it wasn’t static, you could not use it to remember the last state.

1. When the program starts, it should set the color to green. That should be done in the function that gets called upon loading. Which method is called when the view controller is loaded? Write that here.

-(void) viewDidLoad{

1. Run the program and verify the color of the text alternates between red and green as the button is pressed repeatedly.
2. Create a repository called test1pgm1 on github and put your project there.