Cornell App Development September 15, 2014

# PROJECT #1

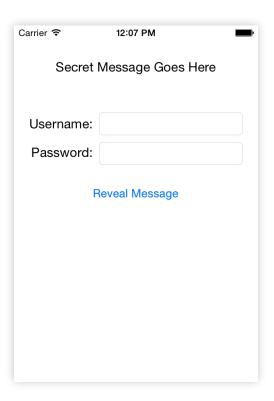
#### Welcome

Each week we'll be giving you a project that will solidify and expand on the concepts learned in lecture. The projects will present you with a problem that you need to solve by designing your own application. At the end of each project are challenge problems, which are *highly* recommended in

order to develop a strong understanding of the concepts each week. Every project will also have reading materials, some will be required for next week while others are there to help you with the task at hand. If you get stuck, these reference materials will be invaluable.

#### The Problem

Your task is to complete a simple username and password app so that when the text in the username textfield is "username" and text in the password textfield is "password", the secret message label will display: "You unlocked the secret message" when the *Reveal Message* button is tapped. If anything else is in the text fields, the text should display, "Keep trying" when that same button is tapped. The app should follow the same style as the figure on the right.



## **Challenge Problems**

Below are a set of extra features you could add to your app. They are given in order of ascending difficulty.

- 1. Liven the place up a bit. Try changing the background color. Change some fonts, colors and shadows on the labels. Go CRAZY!
- 2. If you enter the incorrect password or username and hit the *Reveal Message* button, set the message label to say "Incorrect username or password" in red text with a different font.
- 3. Introduce a *UISwitch* object into the app (search for "switch" in the object library) and only if the switch is turned on should the password be displayed. If the switch is off, then the app should behave as if the incorrect username and password were entered. Fair warning, the word *switch*

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is a keyword in Swift, so you'll have to call your switch object something else, perhaps "enableSwitch."

- 4. You might notice when testing the app that the keyboard in iOS does not behave as you may expect it to. In particular, it never hides itself. See if you can find a way to get rid of the keyboard in one way or another.
- 5. The app has many flaws, but one of the biggest is that for an app that keeps your deepest darkest secret, it doesn't give you a way to enter that secret anywhere in the user interface. Perhaps you can add a way to store this information, only after you have entered the correct username and password of course;)

### Reference

For this project, you'll need to figure out a few things on your own. One of the best ways to do this is to be able to lookup the *class references* of any class you need to learn more about. Some that may be particularly useful:

- · Lesson #1
- · UITextField Class Reference
- · UILabel Class Reference
- · UISwitch Class Reference
- The Swift Programming Language (available on the iBooks Store)