CSE 438: Mobile Application Development
Studio: Xcode

Overview

In this studio, you will create a working iOS app! The majority of the work will be done using Xcode's visual layout editor — storyboards. The goal is to create a simple app that displays a label, image, and slider. Adjusting the slider should change the opacity of the image.

Details

Due date: Friday September 15 at 11:59 PM.
Grading: Complete as much of the studio as you can to get credit.
Submission: Zip the entire project folder and submit it on Canvas. Please name the file "FirstNameLastName-Studio1.zip".

Activities

The Project

The majority of this lab can be done without any code. Using Xcode and Storyboard can be tricky the first time you use them, so if you need help, please ask! At the end, you should have an app that displays an image, some text, and has a slider that adjusts the opacity of the image. The image should be centered horizontally on the screen when the device is in portrait mode.

Getting Started

First, launch Xcode and create a new project. Select the single view app template and fill in the information on the next page. Name your project, and make sure the language is set to Swift and the Interface is set to Storyboards (**not SwiftUI**). The next screen will let you choose a location for your project, and determine if you want to use git. I recommend using git and committing to the local repository occasionally so you can reset to a previous point if something goes horribly wrong.

Navigating Xcode

Xcode, like any professional application, may seem intimidating at first and will take time to learn. Luckily for you, I have a screenshot below to help you out. Use this studio as a chance to
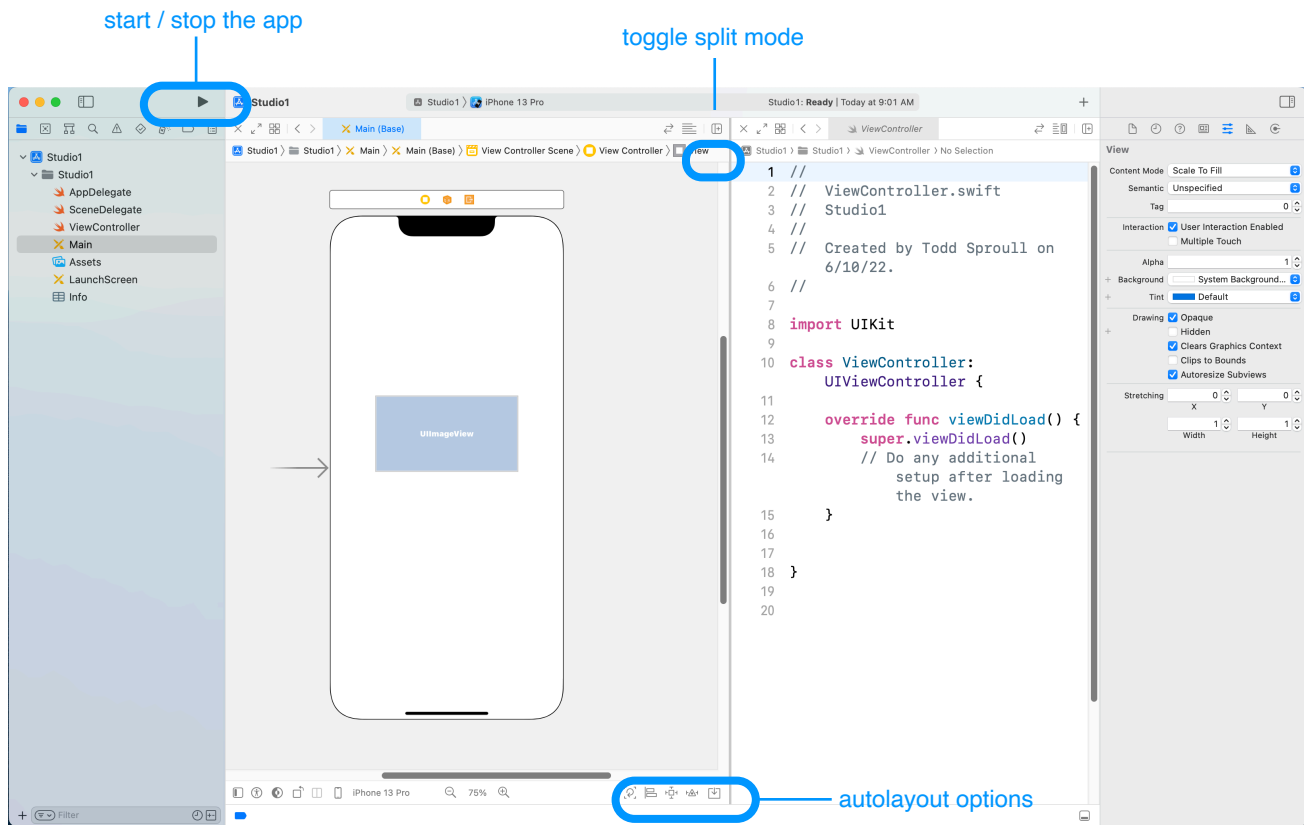
Some key (and easily missed) features of the Xcode IDE.

learn about all the options in Xcode! You will spend a lot of time in Xcode this semester and it's worthwhile to learn as much as you can now.
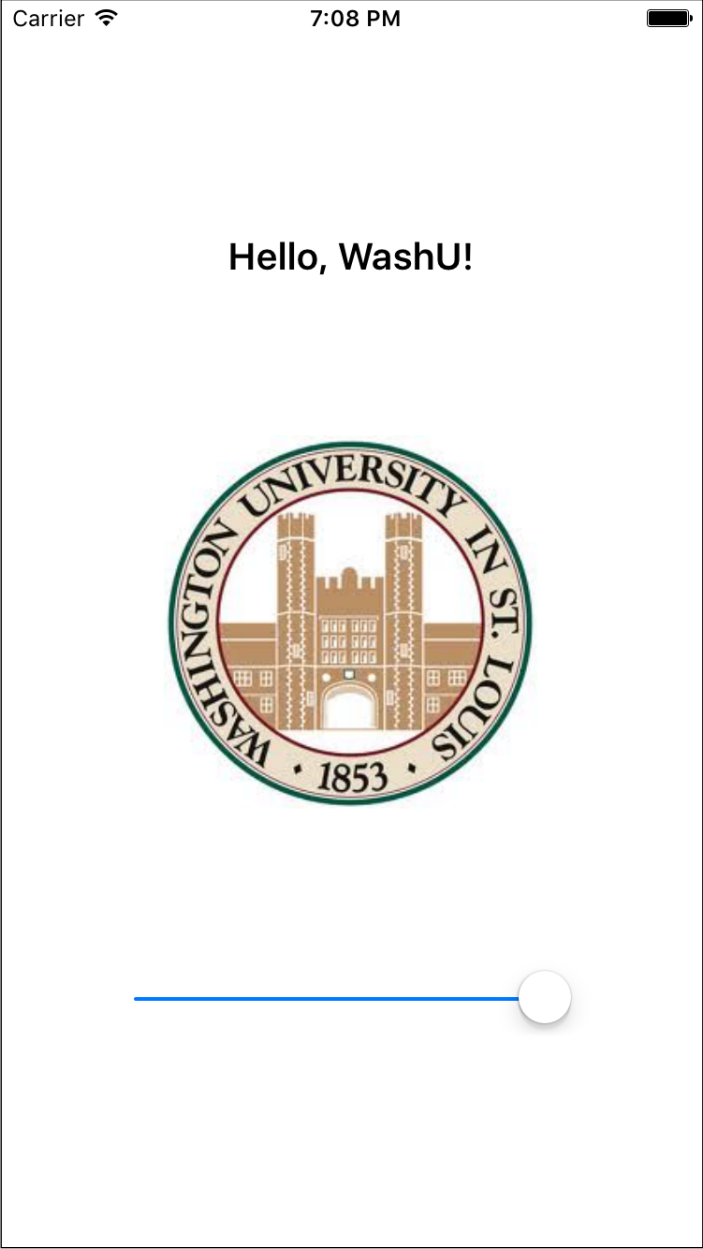
Creating UI Objects

User interface objects can be dragged and dropped from the object library accessed by clicking the + button in the top right. These objects can be configured in the menus on the right side.

Outlets and Actions

To connect the objects in the storyboard to your code, control-drag from the item to your code. To view both the storyboard and code at the same time, enable split mode using the small Venn diagram button in the top right. An outlet is a reference to the object accessible by your code, and an action is a function that is called when a certain event occurs (the user presses the button, or slides a slider, for example).

Feel free to work with those around you and ask questions. Good luck!

An example of the final app.