



# WEEK 3 ASSIGNMENT

## OO, UI ELEMENTS AND VIEW CONTROLLERS

Complete all TODOs in the provided app. The provided app contains the scaffolding of a functional app, and a series of TODOs each prompting for the construction of various view controllers and views. These exercises will give you experience with several different types of view controllers and views, and will give you practical experience in creating and laying out basic views using code and interface builder.

### GOALS OF PROJECT

- Understand the basic principles of OO programming (encapsulation, polymorphism, inheritance).
- Understand how views are laid out, on a very basic level, and what views and controls are commonly used in iOS applications.
- Be able to use common view controllers in iOS.
- Know how to use methods in views and view controllers inherited from superclasses.
- Understand how to interact with common interactable UI elements, and how to add custom gestures to one's own UI elements.

### PROJECT REQUIREMENTS

#### Your app must:

- Successfully meet all tasks outlined in the given app.
- Format: Sample app has all view and view controller TODOs filled out and functioning.
- TODO one asks the user to hook up a swipeable area on the home screen that must present a modal dialog when swiped.
- TODO two asks the user to add an imageview to the modal dialog presented in TODO two.
- TODO three asks the user to hook up a 'dismiss' button below the above mentioned image view that will dismiss the modal dialog.
- TODO four asks the user to hook up a button on the home screen that must push a table view controller into view (via a navigation controller) when tapped. The table view controller is pre existing, and shows the description of a series of objects stored in an array.
- TODO five asks the user to create a subclass of the object displayed in the array, add an instance of that object to be displayed in the table view, then change the displayed string of the subclass to their liking (without changing the existing display code in the table view controller).

### DELIVERABLES

- Assignment (code, resources, project file) posted on Github

### TIMELINE

DUE DATE	DELIVERABLE
Week 4, Day 1	Assignment (code, resources, project file) posted on Github



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## SUGGESTED WAYS TO GET STARTED

Answer the following questions:

- › What's a class? What's an object? What's a method? What's a variable?
- › What is a protocol?
- › What is a struct?
- › What is inheritance?
- › What's a view controller, and what subclasses of UIViewController are you likely to use?

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## RESOURCES

Links:

- › [An Introduction to Object-Oriented Programming in Swift](#)
- › [Mac Developer Library, "Classes and Structures"](#)
- › [Learning Swift Blog, "Structs, Tuples, Enums"](#)

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## EVALUATION

Your assignment will be evaluated regarding the extent to which you meet the above requirements using this rubric:

[LINK TO RUBRIC](#)

The rubric outlines how your assignment will be evaluated on assignment readiness, stability & performance, and style & readability.