



WEEK 3 ASSIGNMENT

Complete all TODOs in the provided app. The provided app contains a series of exercises going over Swift basics and control flow. By completing these exercises you will gain confidence and familiarity with variables, functions, classes and control flow in Swift. You will also have hands-on experience with XCode and other common iOS development tools.

GOALS OF PROJECT

- › Be able to read and write basic Swift statements and control flow.
- › Know how to navigate XCode in order to quickly prototype your code.
- › Be able to use and understand common programming terminology (e.g. 'variable', 'method', 'class').
- › Understand how to make hooks from interface builder into your Swift code.
- › Understand the basics of view controllers and how they impact your apps.
- › Be able to pull down and submit code via github

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: Create a single view application, and add a label and a button to the provided View Controller. Hook up the label outlet, and hook up the button action to a new function in the View Controller class. When that button is clicked, make the label say 'hello world!'
- › TODO two: Add two text fields to collect the user's name and age. Comment out the single line of code that sets the text to "hello world!". Write a new line just below it that takes the user input and sets the label to "Hello {name}, you are {age} years old!"
- › TODO three: Add another label that shows "You can drink" below the above text if the user is above 21. If they are above 18, print "you can vote". If they are above 16, print "You can drive."
- › TODO four: Comment out the code from todo three, and set the label to "you can drive" if the user is above 16 but below 18, "You can drive and vote" if the user is above 18 but below 21, and if user is above 21, show "you can drive, vote and drink (but not at the same time!)"
- › TODO five: Create a second screen and hook it up with a View Controller subclass. Create a way to navigate to it. Add a textfield to take numeric input, a 'sum' text label and an 'add' button. Display the cumulative sum of all numbers entered every time the 'add' button is pressed.
- › TODO six: Create another screen and a way to get to it, and on the new screen place a number input text field, an 'is even?' button, and a label. When the button is pressed, a message should display in the label indicating whether the number is even.

DELIVERABLES

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



TIMELINE

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

SUGGESTED WAYS TO GET STARTED

Answer the following questions:

- What's a method? What's a variable?
- How do you make a hook into your code from something you have defined in Interface builder?
- When might you use a for loop? A while loop?
- What is a function? When might you use one?
- What is a variable, and how is it different from a constant?
- What is a conditional? A boolean?
- What are types? Is Swift 'typed'?

RESOURCES

Links:

- [Apple's guide to Swift control flow](https://developer.apple.com/library/prerelease/mac/documentation/Swift/Conceptual/Swift_Programming_Language/ControlFlow.html)
https://developer.apple.com/library/prerelease/mac/documentation/Swift/Conceptual/Swift_Programming_Language/ControlFlow.html
- [Apple's guide to writing functions in Swift](https://developer.apple.com/library/prerelease/mac/documentation/Swift/Conceptual/Swift_Programming_Language/Functions.html#//apple_ref/doc/uid/TP40014097-CH10-XID_245)
https://developer.apple.com/library/prerelease/mac/documentation/Swift/Conceptual/Swift_Programming_Language/Functions.html#//apple_ref/doc/uid/TP40014097-CH10-XID_245

EVALUATION

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

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