

## Lesson 06 - Learn how to code with Swift

What is code?

What is a computer program?

### Why does coding seem so hard and so weird?

Because computers are so dumb

How to make coding a more visual activity

Writing code (mostly) submits to the same rules of structure and order as everyday things

As time goes by, typically non-tech rolls (e.g. Designers) will have coding as one of their core functions.

### Activity - Code for a login screen

Partner up and write pseudo code for processing the email and password fields from a login screen

Coding vs Programming

Computer programs should be written for humans but understandable by computers

The Hard Way is Easier

<http://learnpythonthehardway.org/book/intro.html>

Programming styles

### Object Oriented Programming

In Swift

<https://www.weheartswift.com/object-oriented-programming-swift/>

Design Patterns

### Key Programming Concepts

- Reasoning about...
- Pseudo code
- Optionals
- Mutability
- Readability
- Modularity
- Encapsulation
- Documentation
- State
- Synchronous vs. Asynchronous
- Abstraction
- API
- Value types and Reference types

### A Swift Tour with Apple's GuidedTour.playground

[https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift\\_Programming\\_Language/GuidedTour.playground.zip](https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift_Programming_Language/GuidedTour.playground.zip)

### Introduction to Swift

<https://developer.apple.com/videos/wwdc/2014/?id=402>

### Apple's Swift Tour and Language Guide

[https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift\\_Programming\\_Language/GuidedTour.html#//apple\\_ref/doc/uid/TFCH2-ID1](https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift_Programming_Language/GuidedTour.html#//apple_ref/doc/uid/TFCH2-ID1)

### GA Book - Intro to Swift

<http://mobbook.generalassemb.ly/week02/intro.html>

### 100 Swift programming exercises

<http://www.weheartswift.com/swift-programming-scratch-100-exercises/>

### Swift Style Guide

<https://github.com/raywenderlich/swift-style-guide>