

An Introduction to Swift

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DevFountain

About Me

- Software Engineer
- Swift since 2014
- DevFountain in 2015
- Two apps in the App Store



DevFountain



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VISUAL **SLEEP** TIMER

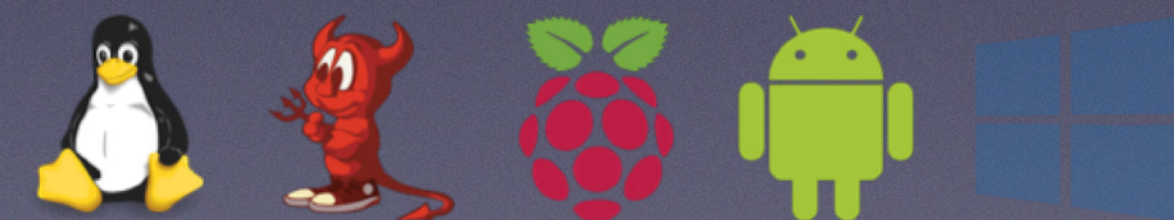
Today's Session

- What is Swift?
- How do I get started?
- What resources are available?
- Demos

What is Swift?

- Developed by Apple Inc.
- iOS, macOS, watchOS, tvOS, and Linux
- Ported to FreeBSD, Raspberry Pi, Android, and Windows

macOS
iOS
watchOS
tvOS



Source: developer.apple.com

What is Swift?

- Publicly released in September 2014
- Open sourced in December 2015
- One of the most popular programming languages in the world



Source: swift.org

How do I get started?

- Download and install Swift
 - <https://swift.org/download/#releases>
- Requirements
 - macOS 10.11 (El Capitan) or later
 - Ubuntu 14.04 or 16.04 (64-bit)

Releases

Swift 3.0.2

Download	Date
Xcode 8.2* (Toolchain) (Debugging Symbols)	December 13, 2016
Ubuntu 16.04 (Signature)	December 13, 2016
Ubuntu 14.04 (Signature)	December 13, 2016

To submit to the App Store you must build your app using the version of Swift that comes included within Xcode.

How do I get started?

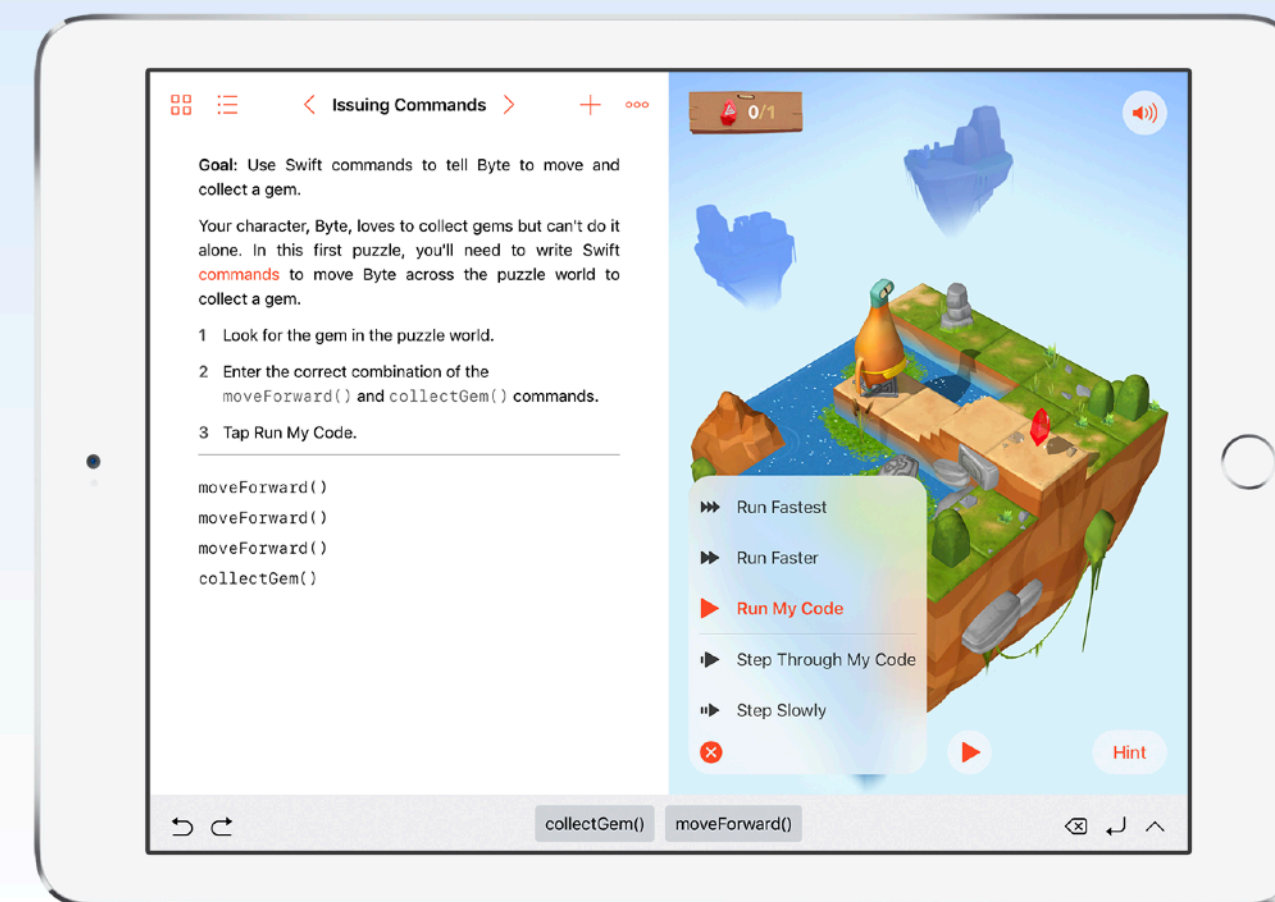
- Swift Playgrounds
- <https://developer.apple.com/swift/playgrounds/>
- Requirements
 - An iPad with iOS 10 or later



Swift Playgrounds

A new way to learn to code with Swift on iPad.

Swift Playgrounds is a revolutionary iPad app that helps you learn and explore coding in Swift, the same powerful language used to create world-class apps for the App Store. Engaging lessons and challenges help students learn the core concepts of coding by writing real Swift and iOS code in an interactive environment designed for touch.



What resources are available?

- Apple Developer - Swift - Resources
 - <https://developer.apple.com/swift/resources/>

Presentations, Documentation, and Sample Code

Guides and Reference

Get detailed information on Swift with a comprehensive reference and set of programming guides.

- 📄 [App Development with Swift \(iBooks Store\)](#)
- 📄 [Swift Programming Series \(iBooks Store\)](#)
- 📄 [Swift Playgrounds Document Format](#)
- 📄 [Starter Playgrounds Book](#)
- 📖 [The Swift Programming Language \(Swift 3\)](#)
- 📖 [Using Swift with Cocoa and Objective-C \(Swift 3\)](#)
- 📖 [Swift Standard Library Reference](#)
- 📖 [Start Developing iOS Apps \(Swift\)](#)
- 📖 [Using Swift with Cocoa and Objective-C](#)

Sample Code

Download samples that show how Swift code works.

- 📄 [Swift Standard Library.playground](#)
- 📄 [Crustacean.playground](#)
- { } [DemoBots: Building a Cross Platform Game with SpriteKit and GameplayKit](#)
- { } [Lister \(for watchOS, iOS, and OS X\)](#)
- { } [UIKit Catalog: Creating and Customizing Controls for iOS](#)

Videos

Watch videos from WWDC to learn about the latest with the Swift programming language.

- ▶ [What's New in Foundation for Swift](#)
- ▶ [What's New in UICollectionView in iOS 10](#)
- ▶ [What's New in Swift](#)
- ▶ [Swift API Design Guidelines](#)
- ▶ [Getting Started with Swift](#)
- ▶ [Going Server-side with Swift Open Source](#)
- ▶ [Understanding Swift Performance](#)
- ▶ [Protocol and Value Oriented Programming in UIKit Apps](#)
- ▶ [Concurrent Programming With GCD in Swift 3](#)
- ▶ [Introducing Swift Playgrounds](#)
- 📖 [View more videos](#)

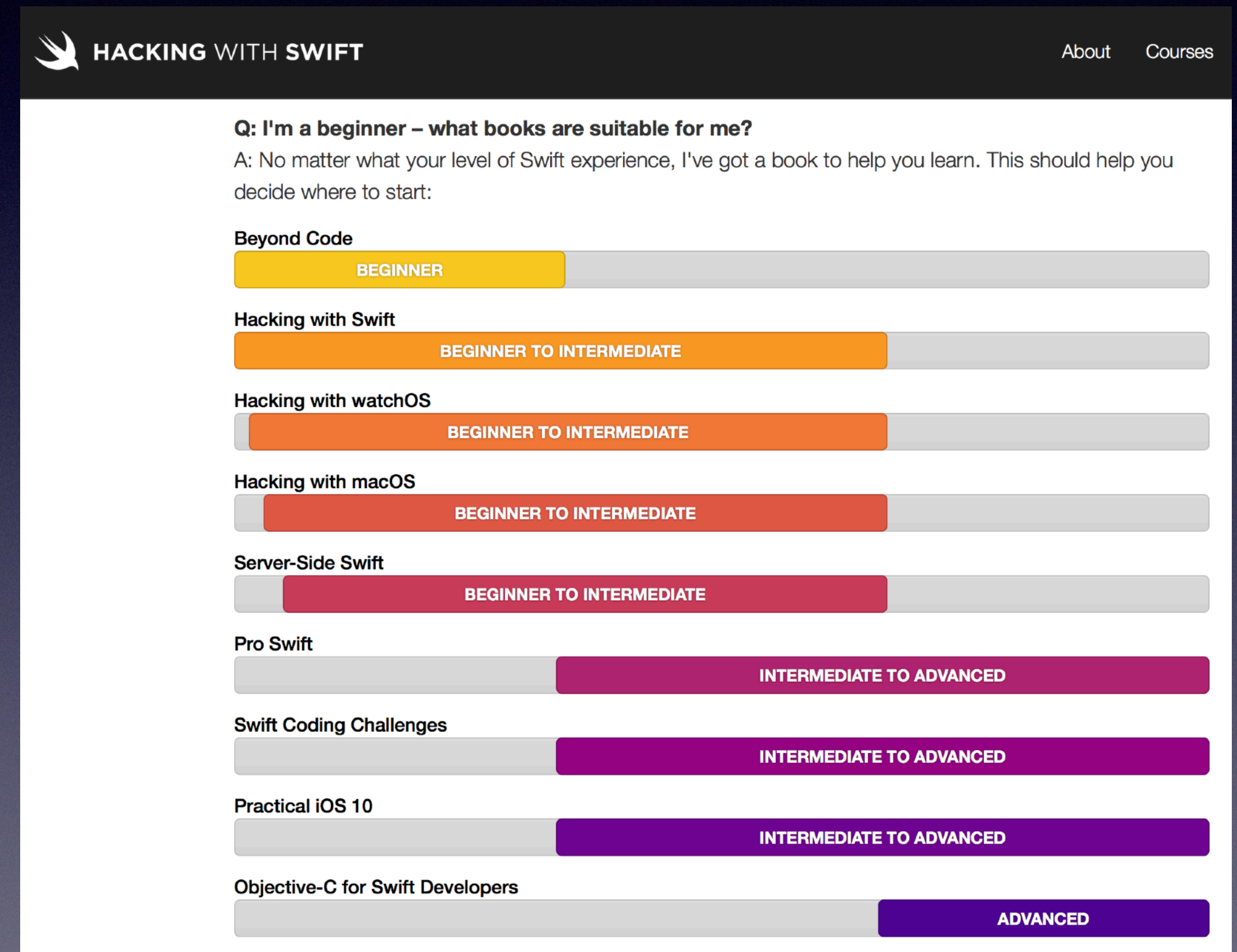
iTunes U Courses

Learn how to build apps by following lessons from internationally recognized universities on iTunes U.

- 📖 [Stanford University: Developing iOS 9 Apps with Swift](#)
- 📖 [Plymouth University: iOS Development in Swift](#)

What resources are available?

- Paul Hudson - Hacking with Swift
- <https://www.hackingwithswift.com/>



The screenshot shows the 'HACKING WITH SWIFT' website. At the top, there is a navigation bar with the site logo and links for 'About' and 'Courses'. Below the navigation bar, a question is posed: 'Q: I'm a beginner – what books are suitable for me?'. The answer follows: 'A: No matter what your level of Swift experience, I've got a book to help you learn. This should help you decide where to start:'. Below this, a list of books is presented, each with a horizontal bar indicating its difficulty level. The books and their levels are: 'Beyond Code' (BEGINNER), 'Hacking with Swift' (BEGINNER TO INTERMEDIATE), 'Hacking with watchOS' (BEGINNER TO INTERMEDIATE), 'Hacking with macOS' (BEGINNER TO INTERMEDIATE), 'Server-Side Swift' (BEGINNER TO INTERMEDIATE), 'Pro Swift' (INTERMEDIATE TO ADVANCED), 'Swift Coding Challenges' (INTERMEDIATE TO ADVANCED), 'Practical iOS 10' (INTERMEDIATE TO ADVANCED), and 'Objective-C for Swift Developers' (ADVANCED).

HACKING WITH SWIFT About Courses

Q: I'm a beginner – what books are suitable for me?
A: No matter what your level of Swift experience, I've got a book to help you learn. This should help you decide where to start:

Beyond Code
BEGINNER

Hacking with Swift
BEGINNER TO INTERMEDIATE

Hacking with watchOS
BEGINNER TO INTERMEDIATE

Hacking with macOS
BEGINNER TO INTERMEDIATE

Server-Side Swift
BEGINNER TO INTERMEDIATE

Pro Swift
INTERMEDIATE TO ADVANCED

Swift Coding Challenges
INTERMEDIATE TO ADVANCED

Practical iOS 10
INTERMEDIATE TO ADVANCED

Objective-C for Swift Developers
ADVANCED

Demo 1

Tip Calculator

Demo 2

Tap Counter

Demo 3

Server-Side Swift

Demo 4

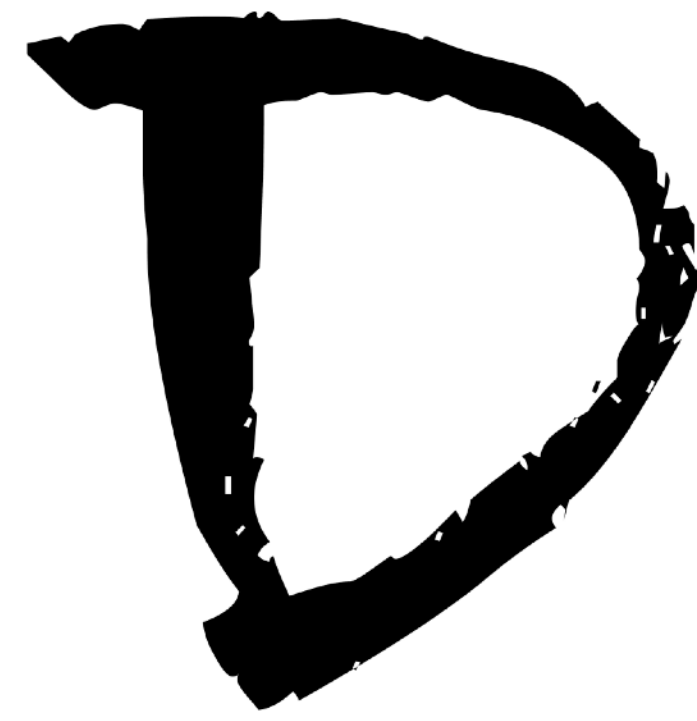
Swift Playgrounds

A local group

- Swift Boise
- <https://swiftboise.com/>
- [@SwiftBoise](#)



SWIFT BOISE



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