IOS APP DEVELOPMENT WITH SWIFT

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TODAY'S PLAN

- General overview of iOS programming
- Introduction to Swift 3.0
- Example project
- Next steps

IOS VS ANDROID??

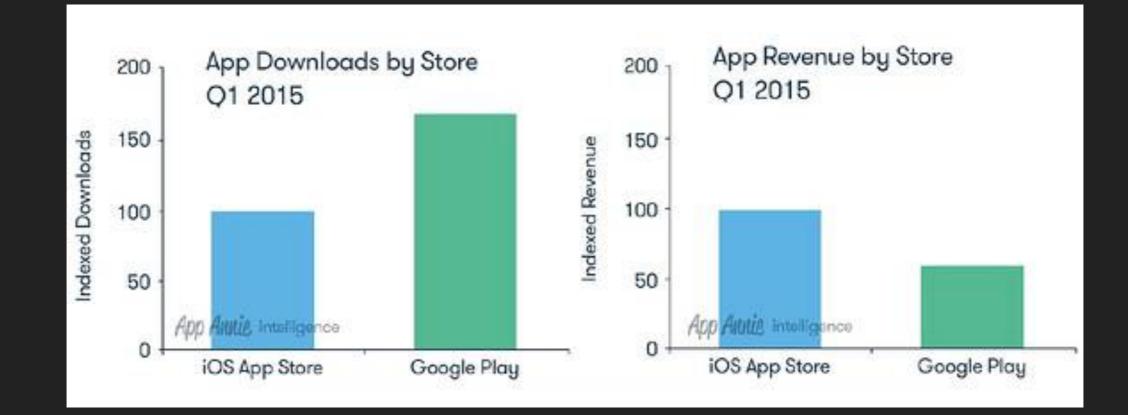
VS

IOS

- Xcode 8.3.1 IDE (Maconly)
- Swift, Cocoa Touch, iOS SDK (OOP)
- Less devices, more revenue

ANDROID

- Android Studio (Mac or PC)
- Java, Android SDK (OOP)
- More devices, less
 revenue



SWIFT VS OBJECTIVE-C??

NO DEBATE. SWIFT.



SWIFT 3.0

MODERN, HIGHER-LEVEL, OOP LANGUAGE

GENERAL INFORMATION

- General
 - Can be used for iOS, MacOS, watchOS, tvOS
- Safe
- Automatic memory management, strongly typed
- Modern
 - Optionals, immutability, higher-order functions, guards, etc.
- Fun!

TO THE CODE!

SUMMARY OF BARE ESSENTIAL SWIFT SYNTAX

- Var binding (var str = "Alex")
- Let binding (let str = "Alex")
- String concatenation ("Alex " + "says hi" => "Alex says hi")
- Looping (for idx in 1...3 { })
- Arrays (let movies : [String] = ["Godfather", "Dark Knight", "Notebook"])
- Functions (func median (input_list:[Int]) -> Int {})

" THAT WAS NICE. BUT WHERE'S THE APP...?"

-students everywhere

TO XCODE!

HMMM, HOW TO APPROACH THIS?

- So we have a design where a user can input grades
- We have a function that we made in the playground that let's us calculate GPA
- Well, let's just add each grade to a list when the user taps the "Next grade!" button
- Then when the user taps the "Done filling grades!" button, use our gpa() function from the playground
- Let's implement this! :)

MORE FUNCTIONALITY

- Check if grade not integer
- Display grades as they come in
- Reset grades for a new student
- Allow letter grades
- Design!

BACK TO XCODE!

WHAT'D WE LEARN IN XCODE?

- Xcode has 3 interfaces: Project Navigator, Storyboard, Coding Window
- The general iOS app construction pipeline is:
 - Make an interface in the Storyboard
 - Code up the interface in the Coding Window
 - Test in simulator
 - Repeat

WHAT TO DO FROM HERE?

- Play around with the source code here
- Read <u>https://developer.apple.com/swift/resources/</u>
- Make practice apps from start to finish
- Stack Overflow is your friend
- Feel free to ask questions!

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THANK YOU! QUESTIONS?