

Xcode , Swift & Objective C

Introduction | History | iOS Development

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Objective C History

- Brad Cox and Tom Love designed the Objective-C language in the early 1980s at a company called StepStone. This new language was layered on top of C, which means that extensions were added to C that enabled objects to be created and manipulated. NeXT Software licensed Objective-C in 1988 and developed libraries and a development environment called NEXTSTEP (Steve Jobs was the CEO of NeXT). Apple Computer acquired NeXT Software at the end of 1996 (allowing Jobs to return as CEO), and their NEXTSTEP/OPENSTEP environment became the basis for the newest OS X operating system. Apple named their version of the development environment Cocoa. This is a short version of how Objective-C came to be the native language for Apple development tools, specifically Xcode, using the Cocoa API.

Swift History

- Development of the Swift language began at Apple in 2010 by Chris Lattner. Outside developers first received a version of the programming language on June 2, 2014 at Apple's WWDC conference. Swift 1.0 was released for Xcode 6.0 for iOS on September 9, 2014. Swift 2.0 and 3.0 were released in September 2015 and 2016, respectively. The Swift language was originally a proprietary language to Apple, but it was made open source with version 2.2, released in December 2015. Swift is designed to work with Cocoa and Cocoa Touch, as well as the existing Objective-C code written for Apple products. The language is intended to be safer and more concise than Objective-C.
- <https://github.com/apple/swift-evolution>
- Later we see the difference between Swift And Objective C.
- Open Xcode and work with Swift Playground.

IOS/XCODE INTERFACE BUILDER

What is Xcode?

- Xcode is an application that developers use to build apps for Apple's various platforms such as iPhone, iPad, Macs, AppleTV and Apple Watch.
- Xcode Requirements & Download
- Older version of Xcode's - <https://developer.apple.com/download/all/>

Cocoa and Cocoa Touch Framework

- Swift is a programming language that lets you tell the computer what to do. It is like English.
- Cocoa is a framework that provides you prebuilt data structures and classes to build Mac applications so that you do not have to write everything yourself. It is like vocabulary of automotive industry. You do not say a contraption that has wheels and pistons and doors and windows- you simply say: a car, or a crankshaft or a gearbox. Within the framework of automotives you can do your business using pre understood concepts. Cocoa defines things like 'window', 'scroll bar', etc. And lets you work in apps like mechanics work in garages.
- Xcode is the integrated developer environment that gives you ability to code, debug, test, profile and ship your applications for Mac, iOS, tvOS, watchOS. Xcode is your workshop.

	Cocoa	Cocoa Touch
Application Framework For	MACOSX	iPhone and iPod
Frameworks	Foundation and AppKit.	Foundation and UIKit
API	All the classes used in Cocoa have the NS prefix Ex: NSTextField	classes used in Cocoa have the UI prefix Ex: UITextField