

SWIFT: Apple's Programming Language

Learning Plan
ICOM3010: Self-Directed
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Summary

In 2014, Apple introduced the new programming language Swift at the Worldwide Developers Conference. Swift builds on the programming languages C and Objective-C and was created by Apple for development with iOS and OS X. Apple has been secretly developing Swift for a number of years and it is expected to be the dominant Apple programming language for decades to come.

I have no experience developing with Swift, nor do I have any experience developing Apple apps. This will be my first introduction programming with the Swift language, which I find exciting. I do, however, have experience learning new programming languages and have developed a number of learning techniques that will assist me throughout this self-directed study.

I have had the opportunity to discuss the web industry with many people in preparation for ICOM3010. In doing so, it became clear that there is a need for Apple developers in the Halifax, Nova Scotia area. My current employer, Norex Web Ltd., suggested that I learn Swift, as it will better position me after graduation and within the company. I believe that Swift will open many doors for me as a young professional web/mobile developer and will be a beneficial language to understand as the industry, and Swift, progresses.

As I learn Swift in a self-directed environment I will have the opportunity to work on my organization, execution and problem-solving skills. I will build on the skills that are critical to the success of any self-driven adventure. I will be able to take away many important things from this course that will be used in future self-directed endeavors.

SWOT Analysis

Strengths

- Programming experience
- Experience learning new programming languages
- Exceptional organization skills
- Firm grasp on my learning preferences
- Firm grasp on self-teaching techniques
- I have family members with experience in iOS development
- Strong sense of determination and motivation to produce a working App

Weaknesses

- Know my limitations
- Do not attempt to large of a final App project
- Keep things within the scope of the outlined learning outcomes

Opportunities

- I will better position myself within my current employer as someone with a unique, and desirable, set of skills
- There is a lack of iOS developers in Nova Scotia, a gap that needs to be filled
- Swift is a brand new language and is projected to be the dominant programming language for Apple products for the next 30+ years

Threats

- Because Swift is so new, there are not a lot of resources to utilize
- To my knowledge, no IT faculty at the Truro Campus are familiar with the Swift language, meaning I will have no face-to-face support on campus
- To my knowledge, no peers in my program are attempting to learn Swift

Timeline

The timeline can be found online at [Kyle Samson's ICOM3010 Self-Directed Trello board](https://trello.com/b/iEa6ThsN/kyle-samson-icom-3010-self-directed) (https://trello.com/b/iEa6ThsN/kyle-samson-icom-3010-self-directed).

**Permission may be denied if you are not a "member" of Kyle Samson's ICOM3010 Self-Directed Trello board.*

Conclusion

I have had an interest in iOS App development from the day I purchased my first iPhone. As I have progressed as a young web/mobile developer I have become aware of the increasing need for iOS developers in the Nova Scotia technology industry. The timing seems perfect to dive into learning Apple's new Swift programming language, which is believed to be the dominant language for Apple products for the next 30+ years (approximately the length of my career). After

completing the Android Mobile Development course, I have further motivation to expand my programming skills to the second big mobile player, iOS.

I plan to demonstrate my learning and accomplishments by having a final App completed, which I have developed from start to finish (similar to the final project I created in the Android Mobile Development course), and packaged ready for the Apple App store. Actually deploying the App to the App Store may be out of the scope of this self-directed course. It will most certainly be attempted, but there is quite a process to get an App on the Apple App Store as Apple has a strict review process.

I will encourage continued growth and development in my learning by setting goals and milestones that will act as motivation. Further motivation will come for my current employer, Norex Web Ltd. I have had numerous conversations with Norex regarding iOS development and how learning Swift will better position me in their company, and moving forward as a young developer.

References & Resources

- [Official Apple Swift Documentation](https://developer.apple.com/swift/)
 - <https://developer.apple.com/swift/>
- [Learnswift.tips](http://www.learnswift.tips/)
 - **Used: Throughout**
 - Beginner, Intermediate and Advanced Tutorials
 - Code Examples
 - Code Libraries
 - <http://www.learnswift.tips/>
- [Treehouse: An Absolute Beginner's Guide to Swift](http://blog.teamtreehouse.com/an-absolute-beginners-guide-to-swift)
 - **Used: Early**
 - Fundamentals: Variables, Arrays. Functions, etc.
 - <http://blog.teamtreehouse.com/an-absolute-beginners-guide-to-swift>
- [Ray Wenderlich: Swift Tutorial](http://www.raywenderlich.com/74438/swift-tutorial-a-quick-start)
 - **Used: Early**
 - Introduction to Playground, Classes & Methods, Control Flow, etc.
 - <http://www.raywenderlich.com/74438/swift-tutorial-a-quick-start>
- [The Swift Programming Language](https://itunes.apple.com/us/book/the-swift-programming-language/id881256329?mt=11)
 - Used: Entirety
 - iBooks Download
 - <https://itunes.apple.com/us/book/the-swift-programming-language/id881256329?mt=11>
- [Jogendra: Swift Development Tidbits](#)
 - **Used: Later**

- <http://www.jogendra.com/>
- [Tutsplus: Swift from Scratch](#)
 - **Used: Early**
 - Fundamentals: Introduction, Variables & Constants, Collections & Tuples, Optionals & Control Flow, Functions
 - <http://code.tutsplus.com/series/swift-from-scratch--cms-709>
- [Novall Khan: Swift Tutorials \(YouTube Playlist\)](#)
 - **Used: Early-to-Middle**
 - Switches, Playground, Colors in Playground, Universal Storyboard, Buttons and Actions in Xcode
 - <https://www.youtube.com/playlist?list=PLNh8C75j8VxZdSBzSKwAClGulfUwmajzH&feature=c4-feed-u>
 - *Watch YouTube videos in reverse (6-1)*
- [Swift Language Course \(YouTube Playlist\)](#)
 - **Used: Throughout**
 - Covers a wide array of Swift components. From setup, to built-in functions to Unicode.
 - <https://www.youtube.com/playlist?list=PLxwBNxx9j4PW8bsVaXia9c20I87YEGNRu>
- [Design with Swift](#)
 - **Used: Middle**
 - UI Tips
 - Animations
 - <https://designcode.io/swift-design>
- [Advanced Swift Tutorials](#)
 - **Used: Middle-to-Late**
 - <http://www.swiftadvancedtutorial.com/>
- [Swift-tutorials](#)
 - **Used: Early-to-Middle**
 - <http://swift-tutorials.com/>