GETTING STARTED IN IOS DEVELOPMENT IN SWIFT

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PREFACE

Do you enjoy using iPhone and all the amazing apps in the Apple AppStore? If your answer is yes and you want to build your own app, this book is perfect for you to get your programming journey started!

This book will cover everything you need to learn to build your own app and for iOS app development. If you are an absolute beginner with no programming background or experience, don't worry! In my opinion, one of the beauties about learning mobile app developments compared to the hard core computer science is that you don't really learn until you get your hands dirty and really build something of your own. So if you are a beginner, just follow the instructions step by step, and I'm sure that your app is going to be awesome little by little.

In this book, I will show you step by step how to build an app using Xcode and other tools that Apple provides to its developers. If you want to build your own apps with your app ideas, you don't need to finish the whole book to get started. The first half of this book is about some basic concepts and approaches, which you are going to need no matter what you're trying to build. However, the second half is about the cool features that are introduced to iOS 11 and 12 which can make your app look and feel better. So if you want to add a certain feature to your own app, just jump right to the corresponding chapter and follow the template.

Can't wait to get started? Let's build your first app!

CHAPTER ONE : INTRODUCTION TO SWIFT AND XCODE

I. SWIFT AND IOS

If you have experience in C++, Java, or Python programming, you probably have noticed that your program can run in many platforms: Windows, MacOS, Linux… A powerful high level programming language of all purpose has a lot of powerful tools provided by many different parties over the years.

In the iOS platform, however, you can only use Swift and objective C to write your own app. And your code can only run on a iOS device: iPhone, iPad, Apple Watch… So if Swift is so limited, why are we still using Swift to build our own app?

First introduced by Apple in June 2014, Swift has gone through several major updates. It is designed for iOS, watchOS, and TVOS. Swift is advertised as a "fast, modern, safe, interactive" programming language. The language is easier to learn and comes with features to make programming more productive.

Before Swift, most iOS apps were written in Objective-C. This language was chosen by Apple as the primary programming language for Mac and iOS development. Compared to Objective-C, the syntax is much cleaner and easier to read and write, and more importantly it definitely speeds up the development process. And if you're a total beginner with no prior programming experience, you'll also find the language friendlier and feel more comfortable to develop apps in Swift.

II. WHAT SHOULD YOU LEARN TO BUILD AN APP?

Now you have already known that iOS, Xcode, and Swift work together as a whole to make app development easier for the Apple developers, you may wonder what exactly is the outline of the things that you need learn. In general, it comes down to these topics:

- **Swift:** This is the programming language that you are going to use throughout this tutorial, so you'll learn the basic syntax, the features, and the common practices of this language.
- **Xcode:** This is the environment that you'll have to use to development your own app. You can be really efficient and your workflow can be very pleasant if you are skillful with Xcode.
- **Understand the iOS development kit:** Like other programming languages, the language provider provides many useful tools and features to assist its developers so that the development in that language can be user-friendly, robust, and efficient. This kit comes with a set of software tools and APIs that empowers you to develop iOS apps. For example, if you want to display a web page in your app, the SDK provides a built-in browser that lets you embed right in your application.