

iOS 17 App Development Essentials



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Rev: 1.0

1. Start Here

This book aims to teach the skills necessary to build iOS 17 applications using SwiftUI, Xcode 15, and the Swift programming language.

Beginning with the basics, this book outlines the steps to set up an iOS development environment, together with an introduction to using Swift Playgrounds to learn and experiment with Swift.

The book also includes in-depth chapters introducing the Swift programming language, including data types, control flow, functions, object-oriented programming, property wrappers, structured concurrency, and error handling.

A guided tour of Xcode in SwiftUI development mode follows an introduction to the key concepts of SwiftUI and project architecture. The book also covers creating custom SwiftUI views and explains how these views are combined to create user interface layouts, including stacks, frames, and forms.

Other topics covered include data handling using state properties and observable, state, and environment objects, as are key user interface design concepts such as modifiers, lists, tabbed views, context menus, user interface navigation, and outline groups.

The book also includes chapters covering graphics and chart drawing, user interface animation, view transitions and gesture handling, WidgetKit, Live Activities, document-based apps, Core Data, SwiftData, and CloudKit.

Chapters also explain how to integrate SwiftUI views into existing UIKit-based projects and integrate UIKit code into SwiftUI.

Finally, the book explains how to package up a completed app and upload it to the App Store for publication.

Along the way, the topics covered in the book are put into practice through detailed tutorials, the source code for which is also available for download.

The aim of this book, therefore, is to teach you the skills to build your own apps for iOS 17 using SwiftUI. Assuming you are ready to download the iOS 17 SDK and Xcode 15 and have an Apple Mac system, you are ready to get started.

1.1 For Swift Programmers

This book has been designed to address the needs of both existing Swift programmers and those new to Swift and iOS app development. If you are familiar with the Swift programming language, you can probably skip the Swift-specific chapters. If you are not yet familiar with the SwiftUI-specific language features of Swift, however, we recommend that you at least read the sections covering implicit returns from single expressions, opaque return types, and property wrappers. These features are central to the implementation and understanding of SwiftUI.

1.2 For Non-Swift Programmers

If you are new to programming in Swift, then the entire book is appropriate for you. Just start at the beginning and keep going.

Start Here

1.3 Source Code Download

The source code and Xcode project files for the examples contained in this book are available for download at:

<https://www.payloadbooks.com/product/ios17code/>

1.4 Feedback

We want you to be satisfied with your purchase of this book. Therefore, if you find any errors in the book or have any comments, questions, or concerns, please contact us at feedback@ebookfrenzy.com.

1.5 Errata

While we make every effort to ensure the accuracy of the content of this book, inevitably, a book covering a subject area of this size and complexity may include some errors and oversights. Any known issues with the book will be outlined, together with solutions, at the following URL:

<https://www.payloadbooks.com/ios17errata/>

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