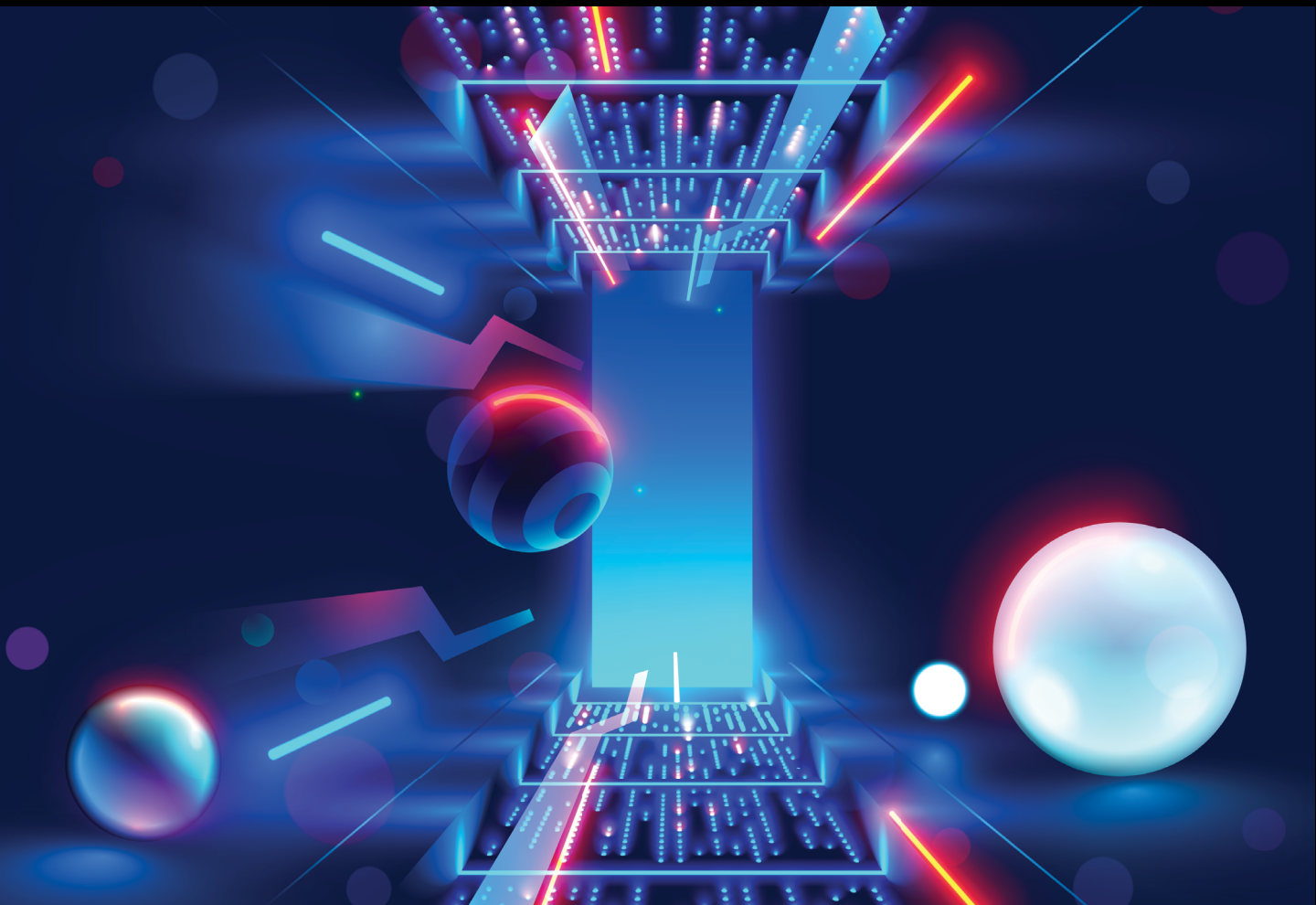


iOS 18 App Development Essentials



iOS 18 App Development Essentials

iOS 18 App Development Essentials

ISBN-13: 978-1-951442-99-6

© 2024 Neil Smyth / Payload Media, Inc. All Rights Reserved.

This book is provided for personal use only. Unauthorized use, reproduction and/or distribution strictly prohibited. All rights reserved.

The content of this book is provided for informational purposes only. Neither the publisher nor the author offers any warranties or representation, express or implied, with regard to the accuracy of information contained in this book, nor do they accept any liability for any loss or damage arising from any errors or omissions.

This book contains trademarked terms that are used solely for editorial purposes and to the benefit of the respective trademark owner. The terms used within this book are not intended as infringement of any trademarks.

Rev: 1.0



<https://www.payloadbooks.com>

1. Start Here

This book aims to teach the skills necessary to build iOS 18 applications using SwiftUI, Xcode 16, 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 18 using SwiftUI. Assuming you are ready to download the iOS 18 SDK and Xcode 16 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/ios18-prag/>

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 info@payloadbooks.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/ios18errata/>

In the event that you find an error not listed in the errata, please let us know by emailing our technical support team at info@payloadbooks.com.

1.6 Take the Knowledge Tests



Look for this section at the end of most chapters and use the link or scan the QR code to take a knowledge quiz to test and reinforce your understanding of the covered topic. Use the following link to review the full list of tests available for this book:

<https://www.answertopia.com/g3um>

