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# Bookmark File PDF The Swift Programming Language Swift 4 0 3 A Swift Tour

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## 8B4 - HARDY WARREN

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Swift Recipes provides a problem solution approach for dealing with key aspects of the Swift programming language (covering version 1.2), ensuring you have the indispensable reference you need to successfully execute common programming tasks. You'll learn how to use the unique features of the Swift programming language as well as its use with Cocoa and Cocoa touch frameworks and libraries. Solutions are available for a range of problems, including application development with Xcode; working with strings, numbers, and object collections; dealing with threads, multi-core

processing, and asynchronous processing; and building applications that take advantage of dates and timers and memory management. This book is an essential core reference for every Swift programmer and offers solutions in a concise and easy-to-follow manner. T. Michael Rogers has developed iOS applications for Fortune 100 brands and startups, and has trained new and experienced iOS developers via the iOS Boot Camp in New York City, online courses, and in private settings. He brings his expertise to offer you the ability to use and exploit Swift to get the most out of all your projects for your app creations, whether you use iOS or Mac OS X.

Learn How to Program with Swift 5.5! Swift is the easiest way to get started developing on Apple's platforms: iOS, iPadOS, macOS, watchOS and tvOS. In this book, you'll learn the basics of Swift from getting started with playgrounds to simple operations to building your own types. Everything you'll learn is platform-neutral; you'll have a firm understanding of Swift by the end of this book, and you'll be ready to move on to whichever app platform you're interested in. Who This Book Is For: This book is for complete beginners to Swift. No prior programming experience is necessary! Topics Covered in The Swift Apprentice-Playground basics: Learn about the coding environ-

ment where you can quickly and easily try out your code as you learn. Basic types: Numbers and strings are the basic kinds of data in any app - learn how to use them in Swift. Flow control: Your code doesn't always run straight through - learn how to use conditions and decide what to do. Functions: Group your code together into reusable chunks to run and pass around. Collection types: Discover the many ways Swift offers to store and organize data into collections. Protocols & protocol-oriented programming: Define protocols to make your code more interface-based and compositional. Advanced topics: Learn how to create custom operators, organize your code, write tests, manage memory, serialize your types, concurrency and so much more. After reading this book and completing your Swift apprenticeship by working through the included exercises and challenges, you'll be ready to take on app development on the platform of your choice!

Summary Now updated for Swift 5! Swift is more than just a fun language to build iOS applications with. It features a host of powerful tools that, if effectively used, can help

you create even better apps with clean, crystal-clear code and awesome features. Swift in Depth is designed to help you unlock these tools and quirks and get developing next-gen apps, web services, and more! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology It's fun to create your first toy iOS or Mac app in Swift. Writing secure, reliable, professional-grade software is a different animal altogether. The Swift language includes an amazing set of high-powered features, and it supports a wide range of programming styles and techniques. You just have to roll up your sleeves and learn Swift in depth. About the Book Swift in Depth guides you concept by concept through the skills you need to build professional software for Apple platforms, such as iOS and Mac; also on the server with Linux. By following the numerous concrete examples, enlightening explanations, and engaging exercises, you'll finally grok powerful techniques like generics, efficient error handling, protocol-oriented programming, and advanced Swift patterns. Author Tjeerd in

't Veen reveals the high-value, difficult-to-discover Swift techniques he's learned through his own hard-won experience. What's inside Covers Swift 5 Writing reusable code with generics Iterators, sequences, and collections Protocol-oriented programming Understanding map, flatMap, and compactMap Asynchronous error handling with Result Best practices in Swift About the Reader Written for advanced-beginner and intermediate-level Swift programmers. About the Author Tjeerd in 't Veen is a senior software engineer and architect in the mobile division of a large international banking firm. Table of Contents Introducing Swift in depth Modeling data with enums Writing cleaner properties Making optionals second nature Demystifying initializers Effortless error handling Generics Putting the pro in protocol-oriented programming Iterators, sequences, and collections Understanding map, flatMap, and compactMap Asynchronous error handling with Result Protocol extensions Swift patterns Delivering quality Swift code Where to Swift from here

A comprehensive guide for programming enthusiasts who wish to gain a

firm command of the fundamentals and advanced Swift concepts. Key features: Sixth edition of this bestselling book, improved and updated to cover the latest version of the Swift 5.3 programming language. Get to grips with popular and modern design techniques to write easy-to-manage Swift code. Use core Swift features such as concurrency, generics, and copy-on-write in your code. Book Description: Over the years, *Mastering Swift* has proven itself among developers as a popular choice for an in-depth and practical guide to the Swift programming language. This sixth edition comes with the latest features, an overall revision to align with Swift 5.3, and two new chapters on building Swift from source and advanced operators. From the basics of the language to popular features such as concurrency, generics, and memory management, this in-depth guide will help you develop your expertise and mastery of the language. As you progress, you will gain practical insights into some of the most sophisticated elements in Swift development, including protocol extensions, error handling, and closures. The book will also show

you how to use and apply them in your own projects. In later chapters, you will understand how to use the power of protocol-oriented programming to write flexible and easier-to-manage code in Swift. Finally, you will learn how to add the copy-on-write feature to your custom value types, along with understanding how to avoid memory management issues caused by strong reference cycles. By the end of this Swift book, you will have mastered the Swift 5.3 language and developed the skills you need to effectively use its features to build robust applications. What you will learn: Understand core Swift components, such as operators, collections, control flows, and functions. Identify how and when to use classes, structures, and enumerations. Use protocol-oriented design with extensions to write easier-to-manage code. Leverage design patterns with Swift to solve commonly occurring design problems. Apply copy-on-write for your custom value types to improve performance. Add concurrency to your applications using Grand Central Dispatch and Operation Queues. Implement generics to write flexible and reusable code. Who this

book is for: This book is for beginners with a basic understanding of programming and experienced developers looking to learn Swift programming. Familiarity with Apple's tools will be beneficial but not mandatory. All examples should also work on the Linux and Windows platforms.

Get up and running with Swift—swiftly. Brimming with expert advice and easy-to-follow instructions, *Swift For Dummies* shows new and existing programmers how to quickly port existing Objective-C applications into Swift and get into the swing of the new language like a pro. Designed from the ground up to be a simpler programming language, it's never been easier to get started creating apps for the iPhone or iPad, or applications for Mac OS X. Inside the book, you'll find out how to set up Xcode for a new Swift application, use operators, objects, and data types, and control program flow with conditional statements. You'll also get the scoop on creating new functions, statements, and declarations, learn useful patterns in an object-oriented environment, and take advantage of frameworks to speed your

coding along. Plus, you'll find out how Swift does away with pointer variables and how to reference and dereference variables instead. Set up a playground development environment for Mac, iPhone, iPad, and wearable computers. Move an existing Objective-C program to Swift. Take advantage of framework components and subcomponents. Create an app that uses location, mapping, and social media. Whether you're an existing Objective-C programmer looking to port your code to Swift or you've never programmed for Apple in the past, this fun and friendly guide gets you up to speed quickly.

Harness the power of the latest edition with this in-depth and comprehensive guide to the Swift language. Key Features: Fifth edition of this bestselling book, improved and updated to cover the latest version of the Swift 5 programming language. Get to grips with popular and modern design techniques to write easy-to-manage Swift code. Learn how to use core Swift features such as concurrency, generics, and copy-on-write in your code. Book Description: Over the years, the *Mastering Swift* book has established itself

amongst developers as a popular choice as an in-depth and practical guide to the Swift programming language. The latest edition is fully updated and revised to cover the new version: Swift 5. Inside this book, you'll find the key features of Swift 5 easily explained with complete sets of examples. From the basics of the language to popular features such as concurrency, generics, and memory management, this definitive guide will help you develop your expertise and mastery of the Swift language. *Mastering Swift 5, Fifth Edition* will give you an in-depth knowledge of some of the most sophisticated elements in Swift development, including protocol extensions, error handling, and closures. It will guide you on how to use and apply them in your own projects. Later, you'll see how to leverage the power of protocol-oriented programming to write flexible and easy-to-manage code. You will also see how to add the copy-on-write feature to your custom value types and how to avoid memory management issues caused by strong reference cycles. What you will learn: Understand core Swift components, including operators, collections,

control flows, and functions. Learn how and when to use classes, structures, and enumerations. Understand how to use protocol-oriented design with extensions to write easy-to-manage code. Use design patterns with Swift, to solve commonly occurring design problems. Implement copy-on-write for your custom value types to improve performance. Add concurrency to your applications using Grand Central Dispatch and Operation Queues. Implement generics to write flexible and reusable code. Who this book is for: This book is for developers who want to delve into the newest version of Swift. If you are a developer and learn best by looking at and working with code, then this book is for you. A basic understanding of Apple's tools would be beneficial but not mandatory. All examples should work on the Linux platform as well.

Move into iOS development by getting a firm grasp of its fundamentals, including the Xcode 13 IDE, Cocoa Touch, and the latest version of Apple's acclaimed programming language, Swift 5.5. With this thoroughly updated guide, you'll learn the Swift language, understand Apple's Xcode devel-

opment tools, and discover the Cocoa framework. Explore Swift's object-oriented concepts Become familiar with built-in Swift types Dive deep into Swift objects, protocols, and generics Tour the life cycle of an Xcode project Learn how nibs are loaded Understand Cocoa's event-driven design Communicate with C and Objective-C In this edition, catch up on the latest iOS programming features: Structured concurrency: `async/await`, tasks, and actors Swift native formatters and attributed strings Lazy locals and throwing getters Enhanced collections with the Swift Algorithms and Collections packages Xcode tweaks: column breakpoints, package collections, and Info.plist build settings Improvements in Git integration, localization, unit testing, documentation, and distribution And more!

NOTE: This edition is now out of date, and does not conform with the current version of Swift. Please check out the newer edition instead, which is ISBN 9780134289779. **LEARNING A NEW PROGRAMMING LANGUAGE** can be daunting. With Swift, Apple has lowered the barrier of entry for developing iOS and OS X apps by giving developers an innova-

tive new programming language for Cocoa and Cocoa Touch. If you are new to Swift, this book is for you. If you have never used C, C++, or Objective-C, this book is definitely for you. With this hands-on guide, you'll quickly be writing Swift code, using Playgrounds to instantly see the results of your work. Author Boisy G. Pitre gives you a solid grounding in key Swift language concepts—including variables, constants, types, arrays, and dictionaries—before he shows you how to use Swift's innovative Xcode integrated development environment to create apps for iOS and OS X. **THIS BOOK INCLUDES:** Detailed instruction, ample illustrations, and clear examples Real-world guidance and advice Best practices from an experienced Mac and iOS developer Emphasis on how to use Xcode, Playgrounds, and the REPL **COMPANION WEBSITE:**

[www.peachpit.com/swiftbeginners](http://www.peachpit.com/swiftbeginners) includes additional resources.

The professional programmer's Deitel® guide to Apple's new Swift programming language for the iOS® and OS X® platforms ; Written for programmers with a back-

ground in object-oriented programming in a C-based language like Objective-C, Java, C# or C++, this book applies the Deitel signature live-code approach with scores of complete, working, real-world programs to explore the new Swift language in depth. The code examples feature syntax shading, code highlighting, rich commenting, line-by-line code walkthroughs and live program outputs. The book features thousands of lines of proven Swift code, and tips that will help you build robust applications. ; Start with an introduction to Swift using an early classes and objects approach, then rapidly move on to more advanced topics. When you master the material, you'll be ready to build industrial-strength object-oriented Swift applications. **About This Book** ; The Swift™ programming language was arguably the most significant announcement at Apple's 2014 Worldwide Developers Conference. Although apps can still be developed in Objective-C®, Apple says that Swift is its applications programming and systems programming language of the future. ; Swift is a contemporary language with simpler syntax than Objec-

tive-C. Because Swift is new, its designers were able to include popular programming language features from languages such as Objective-C, Java™, C#, Ruby, Python® and many others. These features include automatic reference counting (ARC), type inference, optionals, String interpolation, tuples, closures (lambdas), extensions, generics, operator overloading, functions with multiple return values, switch statement enhancements and more. We've been able to develop apps more quickly in Swift than with Objective-C and the code is shorter, clearer and runs faster on today's multi-core architectures. ; Swift also eliminates the possibility of many errors common in other languages, making your code more robust and secure. Some of these error-prevention features include no implicit conversions, ARC, no pointers, required braces around every control statement's body, assignment operators that do not return values, requiring initialization of all variables and constants before they're used, array bounds checking, automatic checking for overflow of integer calculations, and more. You can combine Swift and Objective-C in

the same app to enhance existing Objective-C apps without having to rewrite all the code. Your apps will easily be able to interact with the Cocoa®/Cocoa Touch® frameworks, which are largely written in Objective-C. ; You can also use the new Xcode playgrounds with Swift. A playground is an Xcode window in which you can enter Swift code that compiles and executes as you type it. This allows you to see and hear your code's results as you write it, quickly find and fix errors, and conveniently experiment with features of Swift and the Cocoa/Cocoa Touch frameworks. ; Practical, Example-Rich Coverage of: Classes, Objects, Methods, Properties Initializers, Deinitializers, Bridging Tuples, Array and Dictionary Collections Structures, Enumerations, Closures, ARC Inheritance, Polymorphism, Protocols Type Methods, Type Properties Generics; Strings and Characters Operator Overloading, Operator Functions, Custom Operators, Subscripts Access Control; Type Casting and Checking Nested Types, Nested Methods Optionals, Optional Chaining, Extensions Xcode, Playgrounds, Intro to Cocoa Touch® with a Fully Coded iOS® 8 Tip

Calculator App Overflow Operators, Attributes, Patterns More topics online ; IMPORTANT NOTE ABOUT XCODE AND SWIFT: With Xcode 6.3 and Swift 1.2, Apple introduced several changes in Swift that affect the book's source code. Please visit [www.deitel.com/books/iOS8FP1](http://www.deitel.com/books/iOS8FP1) for updated source code. The changes do not affect Xcode 6.2 users. You can download Xcode 6.2 from [developer.apple.com/downloads/index.action](http://developer.apple.com/downloads/index.action) (you'll have to log in with your Apple developer account to see the list of downloads). ; Visit [www.deitel.com](http://www.deitel.com) Download code examples For information on Deitel's Dive Into® Series programming training courses delivered at organizations worldwide visit [www.deitel.com/training](http://www.deitel.com/training) or to [deitel@deitel.com](mailto:deitel@deitel.com) Join the Deitel social networking communities on Facebook® at [facebook.com/DeitelFan](https://www.facebook.com/DeitelFan), Twitter® at [@deitel](https://twitter.com/deitel), Google+™ at [google.com/+DeitelFan](https://plus.google.com/+DeitelFan), LinkedIn® at [bit.ly/DeitelLinkedIn](http://bit.ly/DeitelLinkedIn), YouTube™ at [youtube.com/user/DeitelTV](https://youtube.com/user/DeitelTV) and subscribe to the Deitel® Buzz Online e-mail newsletter at [www.deitel.com/newsletter/subscribe.html](http://www.deitel.com/newsletter/subscribe.html) ; Get hands-on experience with Apple's Swift pro-

programming language by building real working apps. With this practical guide, skilled programmers with little or no knowledge of Apple development will learn how to code with Swift 2 by developing three complete, tightly linked versions of the Notes application for the OS X, iOS, and watchOS platforms. In the process, you'll learn Swift's fundamentals, including its syntax and features, along with the basics of the Cocoa, CocoaTouch, and WatchKit frameworks. This book teaches you how to use common design patterns for Swift, how to structure an application for Apple's platforms, and how to submit working apps to the App Store. Divided into four distinct parts, this book includes: Swift 2 basics: Learn Swift's features for object-oriented development, as well as various developer tools OS X app development: Set up your app, work with its documents, and build out its features iOS app development: Use multimedia, contacts, location, notifications, and iCloud files to build a fully featured iOS Notes app Advanced app extensions: Support Apple Watch and learn how to debug, monitor, and test all three of your Swift

apps

Get valuable hands-on experience with Swift, the open source programming language developed by Apple. With this practical guide, skilled programmers with little or no knowledge of Apple development will learn how to code with the latest version of Swift by developing a working iOS app from start to finish. You'll begin with Swift programming basics—including guidelines for making your code "Swiftly"—and learn how to work with Xcode and its built-in Interface Builder. Then you'll dive step-by-step into building and customizing a basic app for taking, editing, and deleting selfies. You'll also tune and test the app for performance and manage the app's presence in the App Store. Divided into four parts, this book includes: Swift 4 basics: Learn Swift's basic building blocks and the features of object-oriented development Building the Selfiegram app: Build model objects and the UI for your selfie app and add location support, user settings, and notifications Polishing Selfiegram: Create a theme and support for sharing and add custom views, image overlays, and localization Beyond

app development: Debug and performance test with Xcode, automate chores with Fastlane, and user-test the app with TestFlight

"iOS development with Swift" is a hands-on guide to creating iOS apps. It takes you through the experience of building an app-- from idea to App store. After setting up your dev environment, you'll learn the basics by experimenting in Swift playgrounds. Then you'll build a simple app layout, adding features like animations and UI widgets. Along the way, you'll retrieve, format, and display data; interact with the camera and other device features; and touch on cloud and networking basics.

iOS 11, Swift 4, and Xcode 9 provide many new APIs for iOS developers. With this cookbook, you'll learn more than 170 proven solutions for tackling the latest features in iOS 11 and watchOS 4, including new ways to use Swift and Xcode to make your day-to-day app development life easier. This collection of code-rich recipes also gets you up to speed on continuous delivery and continuous integration systems. Ideal for intermediate and advanced iOS developers looking to work

with the newest version of iOS, these recipes include reusable code on GitHub, so you can put them to work in your project right away. Among the topics covered in this book: New features in Swift 4 and Xcode 9 Tools for continuous delivery and continuous integration Snapshot testing and test automation Creating document-based applications Updated Map view and Core Location features iOS 11's Security and Password Autofill Data storage with Apple's Core Data Creating lively user interfaces with UI Dynamics Building iMessage applications and sticker packages Integrating Siri into your apps with Siri Kit Creating fascinating apps for Apple Watch

Swift a safe, fast, and interactive programming language that combines the best in modern language thinking with wisdom from the wider Apple engineering culture and the diverse contributions from its open-source community. The compiler is optimized for performance and the language is optimized for development, without compromising on either.

Offers twenty-four lessons teaching how to build next-generation OS X and iOS apps using Apple's new

programming language, with step-by-step instructions for such common tasks as using operators, iterating code with loops, and introducing generics.

Deep Dive Into Swift! Swift is a rich language with a plethora of features to offer. Reading the official documentation or entry-level books is important, but it's not enough to grasp the true power of the language. Expert Swift is here to help, by showing you how to harness the full power of Swift. You'll learn about advanced usages of protocols, generics, functional reactive programming, API design and more. Who This Book is For This book is for intermediate Swift developers who already know the basics of Swift and are looking to deepen their knowledge and understanding of the language. Topics Covered in Expert Swift Protocols and Generics: Learn how protocols and generics work, and how you can leverage them in your code to produce clean, long-lasting and easy-to-refactor APIs. Sequences and Collections: Learn how to use Sequences and Collections to write generic algorithms that operate across type families. Unsafe: Understand the memory layout of types and how to

use typed and untyped pointers. Functional Reactive Programming: Explore the most important and refined concepts of functional reactive programming and how you can apply these concepts to your apps. Objective-C Interoperability: Learn how to expose Objective-C code to Swift and vice versa. Library and API Design: Enhancing your skill set and intuition for designing great APIs. One thing you can count on: after reading this book, you'll be prepared to use the advanced features of Swift and improve your existing code with the knowledge you'll acquire.

- This book has covered the latest Swift 5.3.
- Use this book as a quick reference guide (like a cheat sheet) for Swift programming language. Access any topic inside a chapter in just one tap.
- For beginners and for dummies, this book is a step-by-step guide to understanding object-oriented programming with Swift.
- If you are an experienced developer who knows at least one modern programming language well, then this book is designed to teach you how to think and program in Swift programming language.
- Each topic is covered with clear

and concise examples for Swift programming language using Playground. I hope you find this book to be a useful and worthy addition to your library. I've had a great time writing it. Hopefully you'll have a great time reading and learning the latest version of Swift 5.3. I will keep updating this book to make it much simpler and more productive. Thank you for purchasing a copy! -Amit Chaudhary, 10th January 2021

• Chapters Covered in this book: 1. Basics 2. Constants 3. Variables 4. Data Types 5. Operators 6. String and Characters 7. Control Flow 8. Collection Types (Arrays, Sets, and Dictionaries) 9. Functions 10. Closures 11. Enumerators 12. Structures 13. Classes 14. Properties 15. Subscripts 16. Methods 17. Inheritance 18. Initializers 19. De-Initializers/ Deallocation 20. Protocols 21. Extensions/ Categories 22. Automatic Reference Count 23. Type Casting/ Type Checking 24. Generics 25. Optional Chaining 26. Nested Types 27. Error Handling

Swift is very easy to learn and it's more readable than most programming languages. It allows you to build applications for iPhone, iPad, Apple Watch, Apple TV and Mac. Swift Programming in

easy steps teaches you how to build iOS apps from scratch using Swift

4. Learn: · Xcode: the free software to write apps in Swift. · Swift Playgrounds: the experimenting environment that lets you write code and see results instantly. · Firebase: Google's mobile platform that lets you add functionality to your app. · SpriteKit: that gives you everything you'll need to build 2D games. · ARKit: that allows you to create Augmented Reality experiences for your app users. You don't need any prior programming knowledge. This book will walk you through the process of user interface design and coding, all the way to publishing your apps to the App Store! For anyone seeking to discover the easiest way to create apps for Apple devices. Covers iOS 12 and Swift 4

Table of Contents Introduction to iOS Development Swift Playgrounds User Interaction Camera & Photo Library Location & Table Views Firebase: Login & Database Game Development Advanced Swift Submitting your Apps

Unleash your child's developer potential through fun projects and help them learn how to create iOS apps in Swift About This Book Children can express

their creativity while learning through interactive Swift Playgrounds Empower children to think critically about problems Learning programming basics can help children gain confidence in problem solving Help children put their imagination into action building their first iOS app Who This Book Is For Children who are curious about the technology we use in our daily lives and want to know how it works can use this book to learn about programming and building their first iOS app. No prior programming experience is necessary. What You Will Learn Basic programming and coding fundamentals Write code using the fun and interactive Swift Playgrounds app Make animations, including creating your own starry night Utilise functions by making pizza in code Create an interactive toy bin Learn how to use control flow statements to further enhance your toy bin Build a simple movie night app working with table-views and arrays In Detail This book starts at the beginning by introducing programming through easy to use examples with the Swift Playgrounds app. Kids are regularly encouraged to explore and play with new concepts to sup-

port knowledge acquisition and retention – these newly learned skills can then be used to express their own unique ideas. Children will be shown how to create their first iOS application and build their very own movie night application. Style and approach This is a project-based guide with an engaging tone that uses a visually rich format. It explains the concepts in clear language and uses lots of pictures, cartoons, and examples. There is a set of practical exercises to be completed.

A comprehensive guide for programming enthusiasts who wish to gain a firm command of the fundamentals and advanced Swift concepts

**Key Features**

- Sixth edition of this bestselling book, improved and updated to cover the latest version of the Swift 5.3 programming language
- Get to grips with popular and modern design techniques to write easy-to-manage Swift code
- Use core Swift features such as concurrency, generics, and copy-on-write in your code

**Book Description**

Over the years, *Mastering Swift* has proven itself among developers as a popular choice for an in-depth and practical guide to the Swift programming language. This

sixth edition comes with the latest features, an overall revision to align with Swift 5.3, and two new chapters on building Swift from source and advanced operators. From the basics of the language to popular features such as concurrency, generics, and memory management, this in-depth guide will help you develop your expertise and mastery of the language. As you progress, you will gain practical insights into some of the most sophisticated elements in Swift development, including protocol extensions, error handling, and closures. The book will also show you how to use and apply them in your own projects. In later chapters, you will understand how to use the power of protocol-oriented programming to write flexible and easier-to-manage code in Swift. Finally, you will learn how to add the copy-on-write feature to your custom value types, along with understanding how to avoid memory management issues caused by strong reference cycles. By the end of this Swift book, you will have mastered the Swift 5.3 language and developed the skills you need to effectively use its features to build robust applications.

**What you will learn**

- Understand core Swift components, such as operators, collections, control flows, and functions
- Identify how and when to use classes, structures, and enumerations
- Use protocol-oriented design with extensions to write easy-to-manage code
- Leverage design patterns with Swift to solve commonly occurring design problems
- Apply copy-on-write for your custom value types to improve performance
- Add concurrency to your applications using Grand Central Dispatch and operation queues
- Implement generics to write flexible and reusable code

**Who this book is for**

This book is for beginners with a basic understanding of programming and experienced developers looking to learn Swift programming. Familiarity with Apple's tools will be beneficial but not mandatory. All examples should also work on the Linux and Windows platforms

A guide to Apple's Xcode 5, covering such topics as creating iOS projects with MVC design; designing Core Data schemas for iOS apps; linking data models to views; and creating libraries by adding and building new targets. Move into iOS develop-

ment by getting a firm grasp of its fundamentals, including the Xcode 9 IDE, Cocoa Touch, and the latest version of Apple's acclaimed programming language, Swift 4. With this thoroughly updated guide, you'll learn the Swift language, understand Apple's Xcode development tools, and discover the Cocoa framework. Explore Swift's object-oriented concepts Become familiar with built-in Swift types Dive deep into Swift objects, protocols, and generics Tour the lifecycle of an Xcode project Learn how nibs are loaded Understand Cocoa's event-driven design Communicate with C and Objective-C Once you master the fundamentals, you'll be ready to tackle the details of iOS app development with author Matt Neuburg's companion guide, *Programming iOS 12*. Learn to make iOS apps even if you have absolutely no programming experience. This hands-on book takes you from idea to App Store, using real-world examples—such as driving a car or eating at a restaurant—to teach programming and app development. You'll learn concepts through clear, concise, jargon-free language. This book focuses on Apple's new program-

ming language, Swift. Each lesson is divided into two parts: the lecture portion explains the terms and concepts through examples, and the exercise portion helps you apply these concepts while building real-world apps, like a tip calculator. Learn how to think differently—and see the world from a whole new perspective. Learn the basic building blocks of programming Dive into the Swift programming language Make apps for iPhone and iPad Use GPS in your app to find a user's location Take or select photos with your app Integrate your app with Facebook and Twitter Submit your app to the App Store Manage and market your app on the App Store Have you been wanting to develop Apps for iOS but don't have the prerequisite language skills? Have you tried other iOS books and the code just went over your head? Do you feel like you need a little more coding experience before tackling mobile? Do you want to get a head start on iOS8 development? There is no mobile platform that has proved more dominant—or more lucrative than iOS! If you're planning on creating native iOS apps, you must know Swift.

Swift is an easy-to-learn and powerful language that is used to create iOS8 and OSX apps in the very near future. Companies are scrambling to hire Swift developers and those with aspirations to create iOS apps are learning it as fast as they can. Author Mark Lassoﬀ is a master-instructor with years of teaching experience. You'll master the Swift programming language as you complete the multiple lab exercises that are both interesting and engaging. Dozens and dozens of code examples are available for you to load up and study. Over 150,000 people have learned programming from Mark Lassoﬀ-- this book is one of his best. If you want to learn Swift and become an iOS8 developer, this is your book. Stay motivated and overcome obstacles while learning to use Swift Playgrounds and Xcode 10.2 to become a great iOS developer. This book, fully updated for Swift 5, is perfect for those with no programming background, those with some programming experience but no object-oriented experience, or those that have a great idea for an app but haven't programmed since school. Many people

have a difficult time believing they can learn to write iOS apps. *Swift 5 for Absolute Beginners* will show you how to do so. You'll learn Object-Oriented Programming (OOP) and be introduced to User Interface (UI) design following Apple's Human Interface Guidelines (HIG) using storyboards and the Model-View-Controller (MVC) pattern before moving on to write your own iPhone and Apple Watch apps from scratch. What You'll Learn Work with Swift classes, properties, and functions Examine proper User Interface (UI) and User Experience (UX) design Understand Swift data types: integers, floats, strings, and booleans Use Swift data collections: arrays and dictionaries Review Boolean logic, comparing data, and flow control Use the Xcode debugger to troubleshoot problems with your apps Store data in local app preferences and Core Data databases Who This Book Is For Anyone who wants to learn to develop apps for the Mac, iPhone, iPad, and Apple Watch using the Swift programming language. No previous programming experience is necessary. Move into iOS development by getting a firm grasp of its fundamentals,

including the Xcode 10 IDE, Cocoa Touch, and the latest version of Apple's acclaimed programming language, Swift 5. With this thoroughly updated guide, you'll learn the Swift language, understand Apple's Xcode development tools, and discover the Cocoa framework. Explore Swift's object-oriented concepts Become familiar with built-in Swift types Dive deep into Swift objects, protocols, and generics Tour the lifecycle of an Xcode project Learn how nibs are loaded Understand Cocoa's event-driven design Communicate with C and Objective-C Once you master the fundamentals, you'll be ready to tackle the details of iOS app development with author Matt Neuburg's companion guide, *Programming iOS 13*.

Start building your very own mobile apps with this comprehensive introduction to Swift and object-oriented programming Key Features A complete beginner's guide to Swift programming language Understand core Swift programming concepts and techniques for creating popular iOS apps Start your journey toward building mobile app development with this practical guide Book Description

Swift Language is now more powerful than ever; it has introduced new ways to solve old problems and has gone on to become one of the fastest growing popular languages. It is now a de-facto choice for iOS developers and it powers most of the newly released and popular apps. This practical guide will help you to begin your journey with Swift programming through learning how to build iOS apps. You will learn all about basic variables, if clauses, functions, loops, and other core concepts; then structures, classes, and inheritance will be discussed. Next, you'll dive into developing a weather app that consumes data from the internet and presents information to the user. The final project is more complex, involving creating an Instagram like app that integrates different external libraries. The app also uses CocoaPods as its package dependency manager, to give you a cutting-edge tool to add to your skillset. By the end of the book, you will have learned how to model real-world apps in Swift. What you will learn Become a pro at iOS development by creating simple-to-complex iOS mobile applications Master Play-

grounds, a unique and intuitive approach to teaching Xcode Tackle the basics, including variables, if clauses, functions, loops and structures, classes, and inheritance Model real-world objects in Swift and have an in-depth understanding of the data structures used, along with OOP concepts and protocols Use CocoaPods, an open source Swift package manager to ease your everyday developer requirements Develop a wide range of apps, from a simple weather app to an Instagram-like social app Get ahead in the industry by learning how to use third-party libraries efficiently in your apps Who this book is for This book is for beginners who are new to Swift or may have some preliminary knowledge of Objective-C. If you are interested in learning and mastering Swift in Apple's ecosystem, namely mobile development, then this book is for you.

What will you learn from this book? Swift is best known as Apple's programming language of choice for developing apps on iOS, iPadOS, macOS, watchOS, and tvOS. But it's far more versatile than that. Open source Swift is also gaining ground as a language for systems pro-

gramming and server-side code, and it runs on Linux and Windows. So where do you start? With *Head First Swift*, you'll explore from the ground up: from collecting and controlling data to reusing code, producing custom data types, and structuring programs and user interfaces with SwiftUI by building safe, protocol-driven code. With Swift under your belt, you'll be ready to build everything from mobile and web apps to games, frameworks, command-line tools, and beyond. What's so special about this book? If you've read a *Head First* book, you know what to expect—a visually rich format designed for the way your brain works. If you haven't, you're in for a treat. With this book, you'll learn Swift through a multisensory experience that engages your mind rather than a text-heavy approach that puts you to sleep.

Summary *Hello Swift!* is a how-to guide to programming iOS Apps with the Swift language, written from a kid's perspective. This approachable, well-illustrated, step-by-step guide takes you from beginning programming concepts all the way through developing complete apps. (Adults will like it

too!) Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology It's fun to play games and explore new things on your iPhone. How amazing would it be to create your own apps? With a little practice, you can! Apple's Swift language, along with special coding playgrounds and an easy-to-use programming environment, make it easier than ever. Take it from author Tanmay Bakshi, who started programming when he was just five years old. About the Book His book, *Hello Swift!* iOS app programming for kids and other beginners, teaches you how to write apps for iPhones and iOS devices step by step, starting with your first line of Swift code. Packed with dozens of apps and special exercises, the book will teach you how to program by writing games, solving puzzles, and exploring what your iPhone can do. *Hello Swift!* gets you started. Where you go next is up to you! What's inside Crystal-clear explanations anyone can understand Kid-friendly examples, including games and puzzles Learn by doing—you'll build dozens of small apps Exercises that en-

courage critical thinking About the Reader Written for kids who want to learn how to program. (Psst! Adults like it, too.) About the Author Tanmay Bakshi had his first app on the iOS App Store at the age of nine. He's now the youngest IBM Champion, a Cloud Advisor, Watson Developer, TED Speaker, and Manning author!

Table of Contents Get ready to build apps with Swift! Create your first app Your first real Swift code using variables I/O laboratory Computers make decisions, too! Let computers do repetitive work Knitting variables into arrays and dictionaries Reuse your code: Clean it with function detergent Reduce your code: Use less, do more with class detergent Reading and writing files Frameworks: Bookshelves of classes SpriteKit: Fun animation time Time to watch your WatchKit code Continuing your journey with Swift Advanced Swift takes you through Swift's features, from low-level programming to high-level abstractions. In this book, we'll write about advanced concepts in Swift programming. If you have read the Swift Programming Guide, and want to explore more, this book is for you. Swift is a great language for sys-

tems programming, but also lends itself for very high-level programming. We'll explore both high-level topics (for example, programming with generics and protocols), as well as low-level topics (for example, wrapping a C library and string internals).

Discover the do's and don'ts involved in crafting readable Swift code as you explore common Swift coding challenges and the best practices that address them. From spacing, bracing, and semicolons to proper API style, discover the whys behind each recommendation, and add to or establish your own house style guidelines. This practical, powerful, and opinionated guide offers the best practices you need to know to work successfully in this equally opinionated programming language. Apple's Swift programming language has finally reached stability, and developers are demanding to know how to program the language properly. Swift Style guides you through the ins and outs of Swift programming best practices. This is the first best practices book for serious, professional Swift programmers and for programmers who want to shine their skills to be

hired in this demanding market. A style guide offers a consistent experience of well-crafted code that lets you focus on the code's underlying meaning, intent, and implementation. This book doesn't offer canonical answers on Swift coding style. It explores the areas of Swift where structure comes into play. Whether you're developing a personal style or a house style, there are always ways to enhance your code choices. You'll find here the ideas and principles to establish or enhance your own best style practices. Begin with simple syntactical styling. Strengthen code bracing for easy readability. Style your closures for safety and resilience. Perfect spacing and layout. Master literal initialization and typing. Optimize control flow layout and improve conditional style choices. Transition from Objective-C and move code into Swift the right way. Boost API design using proper naming and labeling. Elevate defaulted arguments and variadics to their right places. Finally, Erica offers her own broad recommendations on good coding practice. What You Need: Recent version of the Swift programming language

Move into iOS development by getting a firm grasp of its fundamentals, including the Xcode 12 IDE, Cocoa Touch, and the latest version of Apple's acclaimed programming language, Swift 5.3. With this thoroughly updated guide, you'll learn the Swift language, understand Apple's Xcode development tools, and discover the Cocoa framework. Become familiar with built-in Swift types Dive deep into Swift objects, protocols, and generics Tour the life cycle of an Xcode project Learn how nibs are loaded Understand Cocoa's event-driven design Communicate with C and Objective-C In this edition, catch up on the latest iOS programming features: Multiple trailing closures Code editor document tabs New Simulator features Resources in Swift packages Logging and testing improvements And more! Once you master the fundamentals, you'll be ready to tackle the details of iOS app development with author Matt Neuburg's companion guide, *Programming iOS 14*.

Apple's Swift is a powerful, beginner-friendly programming language that anyone can use to make cool apps for the iPhone

or iPad. In *Coding iPhone Apps for Kids*, you'll learn how to use Swift to write programs, even if you've never programmed before. You'll work in the Xcode playground, an interactive environment where you can play with your code and see the results of your work immediately! You'll learn the fundamentals of programming too, like how to store data in arrays, use conditional statements to make decisions, and create functions to organize your code—all with the help of clear and patient explanations. Once you master the basics, you'll build a birthday tracker app so that you won't forget anyone's birthday and a platform game called *Schoolhouse Skateboarder* with animation, jumps, and more! As you begin your programming adventure, you'll learn how to: -Build programs to save you time, like one that invites all of your friends to a party with just the click of a button! -Program a number-guessing game with loops to make the computer keep guessing until it gets the right answer -Make a real, playable game with graphics and sound effects using *SpriteKit* -Challenge players by speeding up your game and adding a high-

score system Why should serious adults have all the fun? *Coding iPhone Apps for Kids* is your ticket to the exciting world of computer programming. Covers Swift 3.x and Xcode 8.x. Requires OS X 10.11 or higher.

Transition from Objective-C to the cleaner, more functional Swift quickly and easily Professional Swift shows you how to create Mac and iPhone applications using Apple's new programming language. This code-intensive, practical guide walks you through Swift best practices as you learn the language, build an application, and refine it using advanced concepts and techniques. Organized for easy navigation, this book can be read end-to-end for a self-paced tutorial, or used as an on-demand desk reference as unfamiliar situations arise. The first section of the book guides you through the basics of Swift programming, with clear instruction on everything from writing code to storing data, and Section II adds advanced data types, advanced debugging, extending classes, and more. You'll learn everything you need to know to make the transition from Objective-C to Swift smooth and painless, so you can begin

building faster, more secure apps than ever before. Get acquainted with the Swift language and syntax Write, deploy, and debug Swift programs Store data and interface with web services Master advanced usage, and bridge Swift and Objective-C Professional Swift is your guide to the future of OS X and iOS development.

Historically, grief and spirituality have been jealously guarded as uniquely human experiences. Although non-human animal grief has been acknowledged in recent times, its potency has not been recognised as equal to human grief. Anthropocentric philosophical questions still underpin both academic and popular discussions. In *Enter the Animal*, Teya Brooks Pribac examines what we do and don't know about grief and spirituality. She explores the growing body of knowledge about attachment and loss and how they shape the lives of both human and non-human animals. A valuable addition to the vibrant interdisciplinary conversation about animal subjectivity, *Enter the Animal* identifies conceptual and methodological approaches that have contributed to the prejudice

against nonhuman animals. It offers a compelling theoretical base for the consideration of grief and spirituality across species and highlights important ethical implications for how humans treat other animals.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Through the authors' carefully constructed explanations and examples, you will develop an understanding of Swift grammar and the elements of effective Swift style. This book is written for Swift 3.0 and will also show you how to navigate Xcode 8 and get the most out of Apple's documentation. Throughout the book, the authors share their insights into Swift to ensure that you understand the hows and whys of Swift and can put that understanding to use in different contexts. After working through the book, you will have the knowledge and confidence to develop your own solutions to a wide range of programming challenges using Swift.

Get quick answers for developing and debugging applications with Swift, Ap-

ple's multi-paradigm programming language. This pocket reference is the perfect on-the-job tool for learning Swift's modern language features, including type safety, generics, type inference, closures, tuples, automatic memory management, and support for Unicode. Designed to work with Cocoa and Cocoa Touch, Swift can be used in tandem with Objective-C, and either of these languages can call APIs implemented in the other. Swift is still evolving, but it's clear that Apple sees it as the future language of choice for iOS and OS X software development. Topics include: Swift's Run-Eval-Print-Loop (REPL) and interactive playgrounds Supported data types, such as strings, arrays, and dictionaries Variables and constants Program flow: loops and conditional execution Classes, structures, enumerations, functions, and protocols Closures: similar to blocks in Objective-C and lambdas in C# Optionals: values that can explicitly have no value Operators, operator overloading, and custom operators Access control: restricting access to types, methods, and properties Built-in global functions and their parameter requirements

And Conclusion Chapter 2. Functions; Function Parameters and Return Value; Void Return Type and Parameters; Function Signature; External Parameter Names; Overloading; Default Parameter Values; Variadic Parameters; Ignored Parameters; Modifiable Parameters; Function In Function; Recursion; Function As Value; Anonymous Functions; Define-and-Call; Closures; How Closures Improve Code; Function Returning Function; Closure Setting a Captured Variable; Closure Preserving Its Captured Environment; Curried Functions; Chapter 3. Variables and Simple Types; Variable Scope and Lifetime.

Entirely rewritten for Apple's Swift programming language, this updated cookbook helps you overcome the vexing issues you're likely to face when creating apps for iOS devices. You'll find hundreds of new and revised recipes for using the iOS 8 SDK, including techniques for working with Health data and HomeKit accessories, enhancing and animating graphics, storing and protecting data, sending and receiving notifications, and managing files and folders among them. Each recipe includes sample code on GitHub that

you can use right away. Use CloudKit APIs to store information in the cloud with ease Create custom keyboards and extensions Access users' health-related information with HealthKit Interact with accessories inside the user's home with HomeKit Create vibrant and lifelike user interfaces with UIKit Dynamics Use the Keychain to protect your app's data Develop location-aware and multitasking-aware apps Work with iOS 8's audio and video APIs Use Event Kit UI to manage calendars, dates, and events Take advantage of the accelerometer and the gyroscope Get working examples for implementing gesture recognizers Retrieve and manipulate contacts and groups from the Address Book Determine a camera's availability and access the Photo Library Swift greatly simplifies the process of developing applications for Apple devices. This book provides you with the essential skills to help you get started with developing applications using Swift. Key Features Teaches you how to correctly structure and architect software using Swift Uses real-world examples to connect the theory to a professional setting Imparts expertise in the core Swift standard

library Book Description Take your first foray into programming for Apple devices with Swift. Swift is fundamentally different from Objective-C, as it is a protocol-oriented language. While you can still write normal object-oriented code in Swift, it requires a new way of thinking to take advantage of its powerful features and a solid understanding of the basics to become productive. What you will learn Explore the fundamental Swift programming concepts, language structure, and the Swift programming syntax Learn how Swift compares to other computer languages and how to transform your thinking to leverage new concepts such as optionals and protocols Master how to use key language elements, such as strings and collections Grasp how Swift supports modern application development using advanced features, such as built-in Unicode support and higher-order functions Who this book is for If you are seeking fundamental Swift programming skills, in preparation for learning to develop native applications for iOS or macOS, this book is the best for you. You don't need to have any prior Swift knowledge; however, object-ori-

ented programming experience is desired.