

Download Ebook Functional Programming In Swift Ebook Chris Eidhof Pdf File Free

Swift in Depth **iOS Development with Swift Design Patterns in Swift 5: Learn how to Implement the Gang of Four Design Patterns Using Swift 5. Improve Your Coding Skills.** [Beginning Swift](#) [Mastering Swift 5](#) **Hello Swift!** *The Society for Worldwide Interbank Financial Telecommunication (SWIFT) Data Structures and Algorithms in Swift* [Swift Data Structure and Algorithms](#) **Advanced Swift Mastering Swift** [Swift](#) [SwiftUI Essentials - iOS 14 Edition](#) **Swift 5 Cheat Sheet Learn Swift by Building Applications** [Test-Driven iOS Development with Swift](#) **iOS 10 App Development Essentials** *Application Development with Swift* [Swift iOS Programming for Kids](#) *Swift in 30 Days Learning Swift* **Test-Driven Development in Swift Hands-On Design Patterns with Swift** *Classic Computer Science Problems in Python* [Swift Style](#) **UIKit for Masterminds** *Swift: The Man, his Works, and the Age* **Tom Swift in Captivity** *Taylor Swift Gulliver's Travels* *Thinking in SwiftUI* **Jonathan Swift and the Millennium of Madness** [iOS 15 Programming Fundamentals with Swift](#) **Tom Swift in the Land of Wonders App Architecture** *Swift Programming Learn SwiftUI* **A Tale of a Tub** [Swift Pocket Reference](#) **SwiftUI for Masterminds**

A PDF version of this book is available for free in open access via www.tandfebooks.com as well as the OAPEN Library platform, www.oapen.org. It has been made available under a Creative Commons Attribution-Non Commercial-No Derivatives 3.0 license and is part of the OAPEN-UK research project. This book traces the history and development of a mutual organization in the financial sector called SWIFT, the Society for Worldwide Interbank Financial Telecommunication. Over the last forty years, SWIFT has served the financial services sector as proprietary communications platform, provider of products and services, standards developer, and conference organizer ("Sibos"). Founded to create efficiencies by replacing telegram and telex (or 'wires') for international payments, SWIFT now forms a core part of the financial services infrastructure. It is widely regarded as the most secure trusted third party network in the world serving 212 countries and over 10,000 banking organizations, securities institutions and corporate customers. Through every phase of its development, SWIFT has maintained the status of industry cooperative thus presenting an opportunity to study broader themes of globalization and governance in the financial services sector. In this book the authors focus on how the design and current state of SWIFT was influenced by its historical origins, presenting a comprehensive account in a succinct form which provides an informative guide to the history, structure, activities and future challenges of this key international organization. This work will be of great interest to students and scholars in a wide range of fields including IPE, comparative political economy, international economics, business studies and business history. 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 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 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! SwiftUI is radically different from UIKit. So in this short book, we will help you build a mental model of how SwiftUI works. We explain the most important concepts in detail, and we follow them up with exercises to give you hands-on experience. SwiftUI is still a young framework, and as such, we don't believe it's appropriate to write a complete reference. Instead, this book focuses on transitioning your way of thinking from the object-oriented style of UIKit to the declarative style of SwiftUI. Thinking in SwiftUI is geared toward readers who are familiar with Swift and who have experience building apps in frameworks like UIKit. 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-oriented programming experience is desired. • 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 Designing iOS mobile apps using simple Swift codes and libraries. KEY FEATURES ● Combines the fundamentals of Swift and power-packed libraries, including SwiftUI. ● Includes graphical illustrations and step-by-step instructions on coding your first iOS application. ● Covers end-to-end iOS app development with code debugging and best practices. DESCRIPTION 'Swift in 30 Days' teaches young graduates and coding applicants to enter the field of rapid development of applications through simplified, pragmatic, and quick programming learning without much theory. The book examines the basics of Swift programming, fundamental Swift building blocks, how to write syntax, constructs, define classes, arrays, model data with interfaces, and several examples of Swift programming. The book will help you to create the environment for app development, including tools and libraries like Xcode and SwiftUI. You will learn to work with Xcode and Swift libraries and finally make an independently developed Swift application. You will have access to design patterns and learn how to handle errors, debug, and work with protocols. By the end of this book, you will become a trusted Swift

programmer and a successful iOS developer who will dive deeper into Apple's intelligent app programming challenge. WHAT YOU WILL LEARN ● Create an iOS app from scratch and learn fundamental Swift concepts such as operators and control flow. ● Create intuitive and intelligent user interfaces with an understanding of self-design and constraints. ● Recap OOP concepts and Swift protocol-based programming. ● Work with design patterns, write clean codes, and build expert tables and navigations. ● Work with Xcode and SwiftUI 2.0. WHO THIS BOOK IS FOR This book is for students, graduates, and entry-level coders who want to learn iOS app development without prior Swift or mobile app development experience. TABLE OF CONTENTS Week 1 (Beginner) 1. Building Your First App 2. Swift Programming Basics 3. Auto Layout 4. Types and Control Flow Week 2 (Intermediate) 5. Optional Type and More 6. Code Structuring Week 3 (Advanced) 7. OOP in Swift 8. Protocols and Delegates Week 4 (Bonus) 9. Error handling and Debugging 10. SwiftUI A book about Taylor. Made with love. By fans. For fans. "Delightful...A rich and exhaustive production...Swifties have gotten their bible." —The New Yorker Ten years ago, an unknown sixteen-year-old released a self-titled debut country album. A decade later, Taylor Swift has reached record-breaking, chart-topping heights. A ten-time Grammy winner, Swift has been hailed for her songwriting talent, crossed effortlessly from country to pop, and established herself as a musician who can surprise, delight, and inspire, all while connecting with her fans in a way that only she can. Amazingly, after all these years, there is no great, comprehensive book about Swift for her fans. Until now. This book, a fan-generated celebration of Swift's first decade as an artist, collects the best writing and images from the past ten years in one gorgeous volume. From preface interviews with Swift in local Pennsylvania newspapers to major profiles in The New Yorker and Rolling Stone; from album reviews by top critics such as Robert Christgau, Sasha Frere-Jones, and Ann Powers to essays by beloved novelists like Maggie Shipstead; from Tavi Gevinson's classic ode to Swift in The Believer to Q&As with Chuck Klosterman and humorous analysis from McSweeney's and The Hairpin; from album-themed crossword puzzles and adult coloring pages to profiles of Taylor's biggest fans; from an excerpt of the soon-to-be-published novel Taylor Swift: Girl Detective to a "book within a book" of Swift's most inspiring quotations titled (naturally) The Tao of Tay, this book is the vital collection of all things Taylor. Here, finally, is the must-have book for every Swiftie and every music lover. For, as Klosterman wrote in GQ, "If you don't take Swift seriously, you don't take contemporary music seriously." * This book is a tribute to Taylor Swift, but she was not involved in its creation. * DigiCat Publishing presents to you this special edition of "A Tale of a Tub" by Jonathan Swift. DigiCat Publishing considers every written word to be a legacy of humankind. Every DigiCat book has been carefully reproduced for republishing in a new modern format. The books are available in print, as well as ebooks. DigiCat hopes you will treat this work with the acknowledgment and passion it deserves as a classic of world literature. Create fully-featured and highly functional iOS apps by writing tests first About This Book Learn test-driven principles to help you build apps with fewer bugs and better designs Become more efficient while working with Swift to move on to your next project faster! Learn how to incorporate all of the principles of test-driven development (TDD) in to your daily programming workflow Who This Book Is For If debugging iOS apps is a nerve-racking task for you and you are looking for a fix, this book is for you. What You Will Learn Implement TDD in swift application development/span Get to know the fundamentals, life cycle, and benefits of TDD/span Explore the tools and frameworks to effectively use TDD/span Develop models and controllers driven by tests/span Construct the network layer using stubs/span Use functional tests to ensure the app works as planned/span Automate and streamline the building, analysing, testing, and archiving of your iOS apps In Detail Test-driven development (TDD) is a proven way to find software bugs early. Writing tests before your code improves the structure and maintainability of your app. Test-driven iOS Development with Swift will help you understand the process of TDD and how it impacts your applications written in Swift. Through practical, real-world examples, you'll start seeing how to implement TDD in context. We will begin with an overview of your TDD workflow and then deep-dive into unit testing concepts and code cycles. We will showcase the workings of functional tests, which will help you improve the user interface. Finally, you will learn about

automating deployments and continuous integration to run an environment. Style and approach This is an easy-to-follow example-driven tutorial, packed with lots of tips and tricks that explore TDD bit-by-bit in the process of making an iOS application. Master the most common algorithms and data structures, and learn how to implement them efficiently using the most up-to-date features of Swift 3

About This Book Develop a deep understanding of the collections in the Swift Standard Library with this step-by-step guide Develop native Swift data structures and algorithms for use in mobile, desktop, and server-based applications Learn about performance efficiency between different data structures and algorithms Who This Book Is For This book is for developers who want to learn how to implement and use common data structures and algorithms natively in Swift. Whether you are a self-taught developer without a formal technical background or you have a degree in Computer Science, this book will provide with the knowledge you need to develop advanced data structures and algorithms in Swift using the latest language features. What You Will Learn Get to know about the basic data structures and how to use the Swift REPL Use the Swift Standard Library collections bridging to Objective-C collections, and find out about protocol-oriented programming Find out about Swift generators and sequences, and see how to use them to implement advanced data structures such as Stack, StackList, Queue, and LinkedList Implement sorting algorithms such as Insertion Sort, Merge Sort, and Quick Sort and understand the performance trade-offs between them See how to implement various binary trees, B-Tree, and Splay Trees Perform advanced searching methods using Red-Black trees, AVL trees, and Trie trees, and take a look at several substring search algorithms Get to know about the data structures used in graphs and how to implement graphs such as depth-first search, breadth-first search, directed graphs, spanning tree, and shortest path Explore algorithm efficiency and see how to measure it In Detail Apple's Swift language has expressive features that are familiar to those working with modern functional languages, but also provides backward support for Objective-C and Apple's legacy frameworks. These features are attracting many new developers to start creating applications for OS X and iOS using Swift. Designing an application to scale while processing large amounts of data or provide fast and efficient searching can be complex, especially running on mobile devices with limited memory and bandwidth. Learning about best practices and knowing how to select the best data structure and algorithm in Swift is crucial to the success of your application and will help ensure your application is a success. That's what this book will teach you. Starting at the beginning, this book will cover the basic data structures and Swift types, and introduce asymptotic analysis. You'll learn about the standard library collections and bridging between Swift and Objective-C collections. You will see how to implement advanced data structures, sort algorithms, work with trees, advanced searching methods, use graphs, and performance and algorithm efficiency. You'll also see how to choose the perfect algorithm for your problem. Style and approach This easy-to-follow yet comprehensive guide can either be read from beginning to end, or depending on your current knowledge level, you can jump to the specific chapter that interests you. Each chapter topic starts with an introduction to the topic and algorithm before moving on to the hands-on implementation and analysis. Get quick answers for developing and debugging applications with Swift, Apple's multi-paradigm programming language. Updated to cover the latest features in Swift 2.0, 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 language can call APIs implemented in the other. Swift is still evolving, but Apple clearly sees it as the future language of choice for iOS and OS X software development. Topics include: Supported data types, such as strings, arrays, array slices, sets, and dictionaries Program flow: loops, conditional execution, and error handling Classes, structures, enumerations, and functions Protocols, extensions, and generics Memory management 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 Ranges, intervals, and strides A full list of built-in global functions and their parameter

requirements 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 Playgrounds, 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. Learn how to develop applications with SwiftUI today! SwiftUI for Masterminds takes the reader step by step through the technologies required to develop applications for iPhones, iPads and Mac computers. After reading this book, you will know how to program in Swift, how to design user interfaces, and how to combine traditional frameworks with the advanced features provided by SwiftUI to build modern applications. This book is a complete course on app development for Apple devices. Every chapter explores basic and advanced topics, from computer programming to graphics and databases. The information is supported by examples that guide beginners and experts through the development process and gradually introduce them to complex topics. The goal of SwiftUI for Masterminds is to familiarize you with the latest technologies introduced by Apple for app development. It was designed to prepare you for the future and was written for the genius inside you, for Masterminds. Introduction to Swift 5.1 Swift Paradigm Declarative User Interfaces SwiftUI Framework Combine Framework Layout and Navigation Mac Catalyst UIKit in SwiftUI Collection Views Text Views MapKit Graphics and Animations Files Archiving Core Data iCloud CloudKit AVFoundation Camera and Photos Library WebKit Views Gesture Recognizers Timers Notifications Operation Queues Error Handling ...and more! iOS app development with iOS 13, Xcode 11 and Swift 5.1 App development, Swift programming, Create apps, Create app, iPhone apps, Build app, Swift language, develop application, Objective-C, Apple development, iOS development, iOS Apps, Program apps. Leverage Swift to practice effective and efficient test-driven development (TDD) methodology. Software testing and TDD are evergreen programming concepts—yet Swift developers haven't widely adopted them. What's needed is a clear roadmap to learn and adopt TDD in the Swift world. Over the past years, Apple has invested in XCTest and Xcode's testing infrastructure, making testing a new top priority in their ecosystem. Open-source libraries such as Quick and Nimble have also reached maturity. The tools are there. This book will show you how to wield them. TDD has much more to offer than catching bugs. With this book, you'll learn a philosophy for building software. TDD enables engineers to solve problems incrementally, writing only as much code as necessary. By decomposing big problems into small steps, you can move along at a fast pace, always making visible progress. Participate in the test-driven development journey by building a real iOS

application and incorporating new concepts through each chapter. The book's concepts will emerge as you figure out ways to use tests to drive the solutions to the problems of each chapter. Through the TDD of a single application, you'll be introduced to all the staples and advanced concepts of the craft, understand the trade offs each technique offers, and review an iterative process of software development. Test-Driven Development in Swift provides the path for a highly efficient way to make amazing apps. What You'll Learn Write tests that are easy to maintain Look after an ever-growing test suite Build a testing vocabulary that can be applied outside the Swift world See how Swift programming enhances the TDD flow seen in dynamic languages Discover how compiler errors can provide the same helpful guidance as failing tests do Who This Book Is For Mid-level developers keen to write higher quality code and improve their workflows. Also, developers that have already been writing tests but feel they are not getting the most out of them. Software developers need to solve various problems. Many times, these problems are the same or similar to the ones they've already encountered in other projects. Wouldn't it be great to apply the solution you've found instead of reinventing the wheel over and over again? That's precisely the reason why software design patterns exist. A design pattern is a standardized way to address a recurring problem. Relying on a proven strategy will not only save you time, but you can rest assured that it's indeed the right choice. Design patterns are the result of a long evolution process. It all started with a book published in 1994 - yes, it's that old! - called "Design Patterns - Elements of Reusable Object-Oriented Software." That's a quite tedious title, so we usually refer to it as "the book by the gang of four." The gang consists of four renowned software engineers: Erich Gamma, Ralph Johnson, Richard Helm, and John Vlissides. They identified the most significant common issues that occurred in multiple projects and developed best practices to solve them. The best part: these solutions are (programming) language-agnostic. You can use the design patterns with any object-oriented programming language. Many modern programming languages and frameworks have integrated the GoF patterns. You don't have to write additional code to support say the Iterator or the Observer. Swift is no exception. Actually, it provides many advanced language features and constructs --such as type extensions, lazy initialization, and predefined protocols -- that let us adopt and integrate the design patterns into our projects easily. This book covers all these topics and provides best practices you can apply in your upcoming projects. First published in 1983, Dean Swift is the concluding book in a series of three volumes providing a detailed exploration of the events of Swift's life. The third volume follows Swift's life and career from 1714 to 1745 and sets it against the public events of the age, paying close attention to political and economic change, ecclesiastical problems, social issues, and literary history. It traces Swift's rise to becoming first citizen of Ireland and looks in detail at the composition, publication, and reception of Gulliver's Travels, as well as many of Swift's other works, both poetry and prose. It also explores Swift's later years, his love affairs with Esther Johnson and Esther Vanhomrigh, his complicated friendships with Pope, Lord Bolingbroke, and Archbishop King, and his declining health. Dean Swift is a hugely detailed insight into Swift's life from 1714 until his death and will be of interest to anyone wanting to find out more about his life and works. 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 systems 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). Swift is more than just a fun language to build iOS applications with. It features a host of powerful tools that, if you know how to effectively use them, can help create even better apps with clean, crystal-clear code and awesome features. Swift in Depth builds on the reader's core Swift language skills, introducing them to powerful techniques like using higher-order functions, generics, efficient error handling, and protocol-oriented programming. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. Learn how to create apps with all the new features introduced to the UIKit framework, and how to build asynchronous and concurrent

applications to take advantage of the multiple cores available in Apple Silicon chips (M1, M1 Pro, and M1 Max) UIKit for Masterminds guides you step by step through the process of creating applications for iPhones, iPads, and Mac computers. After reading this book, you will know how to program in Swift, how to design user interfaces with UIKit and Storyboards, and how to work with the most powerful frameworks available for app development. This book is a comprehensive course on how to build applications for Apple devices. Each chapter explores basic and complex concepts; from computer programming and the Swift language to everything you need to know to develop an application from scratch. The information is supported by practical examples that gradually introduce the technologies involved and make them accessible to everyone. UIKit for Masterminds was designed to prepare you for the future and was written for the mastermind in you. This book includes: Introduction to Swift 5.5 Swift Paradigm Concurrency Foundation Framework UIKit Framework Auto Layout Size Classes Navigation Controllers Scroll Views Stack Views Table Views Collection Views Split View Controller Alert Views Notifications Files Archiving Core Data iCloud CloudKit AVFoundation Camera and Photo Library Map Kit Web Kit Views Gesture Recognizers Timers Operation Queues Error Handling Image and Video Mac Catalyst ...and more! Learn app development with iOS 15, Xcode 13, and Swift 5.5 today! From learning about the most sought-after design patterns to a comprehensive coverage of architectural patterns and code testing, this book is all you need to write clean, reusable code Key Features Write clean, reusable and maintainable code, and make the most of the latest Swift version. Analyze case studies of some of the popular open source projects and give your workflow a huge boost Choose patterns such as MVP, MVC, and MVVM depending on the application being built Book Description Swift keeps gaining traction not only amongst Apple developers but also as a server-side language. This book demonstrates how to apply design patterns and best practices in real-life situations, whether that's for new or already existing projects. You'll begin with a quick refresher on Swift, the compiler, the standard library, and the foundation, followed by the Cocoa design patterns - the ones at the core of many cocoa libraries - to follow up with the creational, structural, and behavioral patterns as defined by the GoF. You'll get acquainted with application architecture, as well as the most popular architectural design patterns, such as MVC and MVVM, and learn to use them in the context of Swift. In addition, you'll walk through dependency injection and functional reactive programming. Special emphasis will be given to techniques to handle concurrency, including callbacks, futures and promises, and reactive programming. These techniques will help you adopt a test-driven approach to your workflow in order to use Swift Package Manager and integrate the framework into the original code base, along with Unit and UI testing. By the end of the book, you'll be able to build applications that are scalable, faster, and easier to maintain. What you will learn Work efficiently with Foundation and Swift Standard library Understand the most critical GoF patterns and use them efficiently Use Swift 4.2 and its unique capabilities (and limitations) to implement and improve GoF patterns Improve your application architecture and optimize for maintainability and performance Write efficient and clean concurrent programs using futures and promises, or reactive programming techniques Use Swift Package Manager to refactor your program into reusable components Leverage testing and other techniques for writing robust code Who this book is for This book is for intermediate developers who want to apply design patterns with Swift to structure and scale their applications. You are expected to have basic knowledge of iOS and Swift. 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. This provocative new view of intellectual history probes the scientific millenarian myth directing twentieth-century learning.

Craven's interdisciplinary findings reveal Swift's dismembering of the consolidated legacy of Paracelsus, Bacon, Milton, Newton, Locke, Toland, and Shaftesbury. 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 encourage 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 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 Tom Swift in Captivity is book number 13 of the Tom Swift series. In this adventure Tom, Ned, Mr. Damon and Eradicate travel to South America in search of a tribe of giants. Sam Preston, the owner of a large circus puts Tom and his friends on the trail of these huge creatures. Of course our hero and his friends pass through numerous hazards, wild animals, and of course, the dastardly bad guy. Travel along as John W. Michaels narrates this early piece of Americana. This book explains a range of application design patterns and their implementation techniques using a single example app, fully

implemented in five design patterns. Instead of advocating for any particular pattern, we lay out the problems all architectures are trying to address: constructing the app's components, communicating between the view and the model, and handling non-model state. We show high-level solutions to these problems and break them down to the level of implementation for five different design patterns - two commonly used and three more experimental. The common architectures are Model-View-Controller and Model-View-ViewModel + Coordinator. In addition to explaining these patterns conceptually and on the implementation level, we discuss solutions to commonly encountered problems, like massive view controllers. On the experimental side we explain View-State-Driven Model-View-Controller, ModelAdapter-ViewBinder, and The Elm Architecture. By examining these experimental patterns, we extract valuable lessons that can be applied to other patterns and to existing code bases.

Develop highly efficient and appealing iOS applications by using the Swift language

About This Book

Develop a series of applications with Swift using the development kits and new/updated APIs

Use the new features of iOS 8 to add new flavor to your applications

A hands-on guide with detailed code snippets to aid you in developing powerful Swift applications

Who This Book Is For

If you are an iOS developer with experience in Objective-C, and wish to develop applications with Swift, then this book is ideal for you. Familiarity with the fundamentals of Swift is an added advantage but not a necessity.

What You Will Learn

Use playgrounds in Xcode to make the writing of Swift code productive and easy

Get acquainted with the advanced features of Swift and make complete use of them in your code

Add a new method for authentication to your app using Touch ID

Develop health-related apps using HealthKit

Take your apps to the next level of performance and capability using Metal

Develop applications for wearables using WatchKit

Use Notification Center to easily access all your notifications

Make your users devices more stylish by using Apple's built-in Quick Type keyboard, instead of the native one

In Detail

After years of using Objective-C for developing apps for iOS/Mac OS, Apple now offers a new, creative, easy, and innovative programming language for application development, called Swift. Swift makes iOS application development a breeze by offering speed, security and power to your application development process. Swift is easy to learn and has awesome features such as being open source, debugging, interactive playgrounds, error handling model, and so on. Swift has simplified its memory management with Automatic Reference Counting (ARC) and it is compatible with Objective-C. This book has been created to provide you with the information and skills you need to use the new programming language Swift. The book starts with an introduction to Swift and code structure. Following this, you will use playgrounds to become familiar with the language in no time. Then the book takes you through the advanced features offered by Swift and how to use them with your old Objective-C code or projects. You will then learn to use Swift in real projects by covering APIs such as HealthKit, Metal, WatchKit, and Touch ID in each chapter. The book's easy to follow structure ensures you get the best start to developing applications with Swift.

Style and approach

The book achieves its end goal by dividing its content into two parts. Part 1 will take the readers, who are new to Swift, through its architecture and basics. Part 2 of the book will cover content on application development with Swift.

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 easier-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 easier-to-manage code

Use design patterns with Swift, to solve commonly occurring design problems

Implement copy-on-write for you 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. Control the performance and stability of the apps you develop in Swift by working with and understanding advanced concepts in data structures and algorithms. All professional developers have to know which data structure and algorithms to use in their development process. Your choice directly affects the performance of your application. With this book, you'll increase the performance of your software, become a better developer, and even pass tricky interview questions better when looking at professional development opportunities. Guided by compact and practical chapters, you'll learn the nature and proper use of data structures such as arrays, dictionaries, sets, stacks, queues, lists, hash tables, trie, heaps, binary trees, red black trees, and R-trees. Use the main differences among them to determine which will make your applications efficient and faster. Then tackle algorithms. Work with Big O notation; sorting algorithms such as Insertion, Merge, and Quick; Naive and Rabin Karp algorithms; and Graph Algorithms. Data Structures and Algorithms in Swift encourages you to further and understand how to best choose the perfect algorithm for your application's needs. What You'll Learn

Retrieve, add, and remove elements in arrays

Implement stacks, queues, and lists in your apps

Sort algorithms and choose the best ones for your apps

Who This Book Is For

Developers who have intermediate knowledge in Swift and want to improve their code performance and pass more complex interviews

"Highly recommended to everyone interested in deepening their understanding of Python and practical computer science." —Daniel Kenney-Jung, MD, University of Minnesota

Key Features

Master formal techniques taught in college computer science classes

Connect computer science theory to real-world applications, data, and performance

Prepare for programmer interviews

Recognize the core ideas behind most "new" challenges

Covers Python 3.7

Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About The Book

Programming problems that seem new or unique are usually rooted in well-known engineering principles. Classic Computer Science Problems in Python guides you through time-tested scenarios, exercises, and algorithms that will prepare you for the "new" problems you'll face when you start your next project. In this amazing book, you'll tackle dozens of coding challenges, ranging from simple tasks like binary search algorithms to clustering data using k-means. As you work through examples for web development, machine learning, and more, you'll remember important things you've forgotten and discover classic solutions that will save you hours of time. What You Will Learn

Search algorithms

Common techniques for graphs

Neural networks

Genetic algorithms

Adversarial search

Uses type hints throughout

This Book Is Written For

For intermediate Python programmers.

About The Author

David Kopec is an assistant professor of Computer Science and Innovation at Champlain College in Burlington, Vermont. He is the author of Dart for Absolute Beginners (Apress, 2014), Classic Computer Science Problems in Swift (Manning, 2018), and Classic Computer Science Problems in Java (Manning, 2020)

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If you want to become an iOS developer, you have made an excellent choice with this book. Swift holds a significant position in the iOS industry because of the long list of features it serves. It is user-

friendly, has great community support, and offers a greater extent of customization. As a result, we can observe a sharp increase in the market demand for developing Apple mobile applications, and with that, companies search for smart developers with the right skill set. Mastering Swift introduces Apple's excellent Swift standard library style and incorporates usage feedback across multiple Swift projects. However, it should be regarded as a living, changeable document and the basis upon which the programming language is implemented. Before going further into the details of the Swift programming language, the book briefly explains the basic information about the language. It is a high-level language created to develop multifaceted iOS applications that cater to diverse needs of different social and business domains. It is meant to develop high-end apps with multiple complexities. But since it is very close to Objective C, it is easy to code and understand. This feature also makes it incredibly friendly to beginners. Moreover, it is equally compatible with the iPhone, the iPad, Apple Watch, MacBook, and Apple TV, and it can be applied to develop equally efficient and scalable apps for them. This book in the Mastering series encircles all the essential aspects of Swift and explores why this programming language is the future for iOS app development. Different from other languages, it requires fewer lines to activate any feature. This paves the way for a shorter development cycle and saves a lot of precious resources. Further, as one of the most reliable iOS programming languages it supports dynamic libraries that indicate executable bits of code that you can link to an application. Because of such support, Swift apps can interoperate with the newest version of the language to make the app irreplaceable. Swift is a language that was not designed but deliberately made open source so as to invite community input, allowing the product to grow and to mature over the years. This could possibly be the most crucial aspect of Swift. As people become more aware of its potential to be used in servers, web frameworks were more willing to support the demand. Owing to its popularity and significance, its adoption rate in Apple's rivals remains very high. Whether you are a beginner or an advanced learner, if you are planning for iOS app development through Swift, this book can help with the high-domain expertise and experienced resources. Without a doubt, the developers that create native apps are not going to abandon Swift anytime soon. However, it seems like something must evolve for it to keep growing constantly. We believe that Swift is indeed the future for iOS app developers. And if you are convinced and want to start learning the programming language right away, then this book is what you're looking for.

Learn more about our other Mastering titles at:

<https://www.routledge.com/Mastering-Computer-Science/book-series/MCS> Do you want to develop iPhone apps but don't know where to start? If you want to learn Swift programming from Scratch, this short book is for you. Learn Swift for iPhone iOS development, no programming development experience is required. Download your copy NOW!!**Book Objectives**This book is about Swift programming. The following are the objectives of the author: To familiarize you with the basics of Swift programming language. To equip you with Swift programming skills, both beginner and advanced skills. To help you understand the difference between Swift and Objective-C. To help you appreciate the power of Swift as a programming language for the development of mobile applications. **Who this Book is for?** The author intends to benefit any of the following groups of people: Anybody who wants to learn basic Swift programming skills. Anybody who needs to advance their Swift programming skills. Anybody who needs to learn iOS app development for iOS 9 and above. Professors, lecturers or tutors who are looking to find better ways to explain Swift programming to their students in the simplest and easiest way. Students and academicians, especially those focusing on Swift programming, computer science and software development. **Requirements**The author expects you to have a computer installed with Mac OS X. If you don't have a MacBook, you can consider creating a Mac OS X virtual machine on your computer. **What is inside the book?** SWIFT BASICS SWIFT DATA TYPES SWIFT VARIABLES AND CONSTANTS SWIFT OPERATORS DECISION MAKING SWIFT LOOPS SWIFT FUNCTIONS SWIFT CLASSES SWIFT METHODS SWIFT ARRAYS SWIFT DICTIONARY SWIFT SETS SWIFT CLOSURES **From the back cover**The author begins by introducing the readers to the foundations of the Swift programming language. The aim is to help them the individuals who developed the language, how the Swift

compiler works. The reader has been guided on what they require so as to program in Swift. The author has then discussed the basics of Swift including writing comments, writing and running the first Swift program, Swift syntax, etc. The various features provided by Swift have been discussed in depth, including data types, variables, constants, loops, decision making, functions, operators, object oriented programming features, etc. The author has organized the book into chapters, with each chapter having many sub-chapters. Swift codes have been added, alongside thorough explanations of the code and images showing the expected output upon the execution of every script. The author begins with the basics of Swift and ends by discussing the complex features provided by the programming language. A step-by-step approach has been employed in every chapter for ease of understanding.

Gulliver's Travels by Jonathan Swift from Coterie Classics All Coterie Classics have been formatted for ereaders and devices and include a bonus link to the free audio book. "Every man desires to live long, but no man wishes to be old." — Jonathan Swift, Gulliver's Travels Gulliver's Travels is a classic piece of satire exploring the nature of mankind through the lens of a man's journey through strange islands filled with even stranger creatures. Get to grips with Apple's new SwiftUI framework for creating robust UIs for iOS and iPadOS using Swift programming Key FeaturesUse SwiftUI for building dynamic apps for Apple devices from scratchUnderstand declarative syntax in cross-platform development and how states work within SwiftUILearn to develop watchOS apps by reusing SwiftUI codeBook Description SwiftUI is the new and powerful interface toolkit that lets you design and build iOS, iPadOS, and macOS apps using declarative syntax. It is a powerful way to develop the UI elements of applications, which would normally be tightly coupled to application logic. Learn SwiftUI will get you up to speed with the framework and cross-device UI development in no time. Complete with detailed explanations and practical examples, this easy-to-follow guide will teach you the fundamentals of the SwiftUI toolkit. You'll learn how to build a powerful iOS and iPadOS application that can be reused for deployment on watchOS. As you progress, you'll delve into UI and unit testing in iOS apps, along with learning how to test your SwiftUI code for multiple devices. The book will also show you how to integrate SwiftUI features such as data binding and network requests into your current application logic. By the end of this book, you will have learned how to build a cross-device application using the SwiftUI framework and Swift programming. What you will learnExplore the fundamentals of SwiftUI and compare it with existing UI frameworksWrite SwiftUI syntax and understand what should and shouldn't be included in SwiftUI's layerAdd text and images to a SwiftUI view and decorate them using SwiftUI's modifiersCreate basic forms, and use camera and photo library functions to add images to themUnderstand the core concepts of Maps in iOS apps and add a MapView in SwiftUIDesign extensions within your existing apps to run them on watchOSHandle networking calls in SwiftUI to retrieve data from external sourcesWho this book is for This SwiftUI book helps any mobile app developer looking to understand the fundamentals of the new SwiftUI framework along with the benefits of cross-device development. A solid understanding of iOS and macOS app development, along with some knowledge of the Swift programming language, will be beneficial. Basic programming knowledge is essential to grasp the concepts covered in the book effectively. Summary iOS Development with Swift is a hands-on guide to creating apps for iPhone and iPad using the Swift language. Inside, you'll be guided through every step of the process for building an app, from first idea to App Store. This book fully covers Swift 4, Xcode 9, and iOS 1. Our video course, iOS Development with Swift in Motion, is the perfect companion to this book, featuring even more projects and examples for you to dig into in the exciting world of iOS development. Find out more at our website: www.manning.com/livevideo/ios-development-with-swift-lv Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology One billion iPhone users are waiting for the next amazing app. It's time for you to build it! Apple's Swift language makes iOS development easier than ever, offering modern language features, seamless integration with all iOS libraries, and the top-notch Xcode development environment. And with this book, you'll get started fast. About the Book 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. What's Inside Create adaptive layouts Store and manage data Learn to write and debug Swift code Publish to the App Store Covers Swift 4, Xcode 9, and iOS 11 About the Reader Written for intermediate web or mobile developers. No prior experience with Swift assumed. About the Author Craig Grummitt is a successful developer, instructor, and mentor. His iOS apps have had over 100,000 downloads combined!

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Reprint of the adventure novel originally published in 1917.

Develop the skills required to create compelling, maintainable, and robust iOS and OS X apps with Swift

About This Book

Write expressive, understandable, and maintainable Swift 2 code with this hands-on tutorial

Unveil the complex underpinnings of Swift to turn your app ideas into reality

This book is packed with real-life examples to help you implement concepts as you learn

Who This Book Is For

If you are looking to build iOS or OS X apps using the most modern technology, this book is ideal for you. You will find this book especially useful if you are new to programming or if you are yet to develop for iOS or OS X. No prior programming exposure is required.

What You Will Learn

Form a solid understanding of the Swift 2 language

Get to know the practical aspects of how a computer program actually works

Understand the paradigms used by Apple's frameworks so you are not intimidated by them

Utilize the vast resources written in Objective-C to better inform your Swift programming

Develop a basic portfolio of Swift code by learning the critical concepts

Experience both object-oriented and functional programming

Get to know the new coding techniques made available by Swift 2

Discover resources to ensure you never stop becoming a better developer

In Detail

Swift is Apple's new programming language and the future of iOS and OS X app development. It is a high-performance language that feels like a modern scripting language. On the surface, Swift is easy to jump into, but it has complex underpinnings that are critical to becoming proficient at turning an idea into reality. This book is an approachable, step-by-step introduction into programming with Swift for everyone. It begins by giving you an overview of the key features through practical examples and progresses to more advanced topics that help differentiate the proficient developers from the mediocre ones. It covers important concepts such as Variables, Optionals, Closures, Generics, and Memory Management. Mixed in with those concepts, it also helps you learn the art of programming such as maintainability, useful design patterns, and resources to further your knowledge. This all culminates in writing a basic iOS app that will get you well on your way to turning your own app ideas into reality.

Style and approach

This is an approachable, step-by-step guide to programming in Swift 2. Each topic is separated into compressible sections that are full of practical examples and easy-to-understand explanations. Each section builds on the previous topics so you can develop a proficient and comprehensive understanding of app development in Swift 2. The goal of this book is to teach the skills necessary to build iOS 14 applications using SwiftUI, Xcode 12 and the Swift 5.3 programming language. Beginning with the basics, this book provides an outline of the steps necessary to set up an iOS development environment together with an introduction to the use of Swift Playgrounds to learn and experiment with Swift. The book also includes in-depth chapters introducing the Swift 5.3 programming language including data types, control flow, functions, object-oriented programming, property wrappers and error handling. An introduction to the key concepts of SwiftUI and project architecture is followed by a guided tour of Xcode in SwiftUI development mode. The book also covers the creation of custom SwiftUI views and explains how these views are combined to create user interface layouts including the use of stacks,

frames and forms. Other topics covered include data handling using state properties in addition to 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 drawing, user interface animation, view transitions and gesture handling, WidgetKit, document-based apps and SiriKit integration. Chapters are also provided explaining how to integrate SwiftUI views into existing UIKit-based projects and explains the integration of 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 necessary to build your own apps for iOS 14 using SwiftUI. Assuming you are ready to download the iOS 14 SDK and Xcode 12 and have an Apple Mac system you are ready to get started. 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 tableviews 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 support 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.