Mastering Swift 4 Fourth Edition: An In Depth And Comprehensive Guide To Modern Programming Techniques With Swift

Become a professional iOS developer with the most in-depth and advanced guide to Swift 5.3, Xcode 12.4, ARKit 4, Core ML, and iOS 14's new features Key FeaturesExplore the world of iOS app development through practical examplesUnderstand core iOS programming concepts such as Core Data, networking, and the Combine frameworkExtend your iOS apps by adding augmented reality and machine learning capabilities, widgets, App Clips, Dark Mode, and animationsBook Description Mastering iOS 14 development isn't a straightforward task, but this book can help you do just that. With the help of Swift 5.3, you'll not only learn how to program for iOS 14 but also be able to write efficient, readable, and maintainable Swift code that reflects industry best practices. This updated fourth edition of the iOS 14 book will help you to build apps and get to grips with real-world app development flow. You'll find detailed background information and practical examples that will help you get hands-on with using iOS 14's new features. The book also contains examples that highlight the language changes in Swift 5.3. As you

advance through the chapters, you'll see how to apply Dark Mode to your app, understand lists and tables, and use animations effectively. You'll then create your code using generics, protocols, and extensions and focus on using Core Data, before progressing to perform network calls and update your storage and UI with the help of sample projects. Toward the end, you'll make your apps smarter using machine learning, streamline the flow of your code with the Combine framework, and amaze users by using Vision framework and ARKit 4.0 features. By the end of this iOS development book, you'll be able to build apps that harness advanced techniques and make the best use of iOS 14's features. What you will learnBuild a professional iOS application using Xcode 12.4 and Swift 5.3Create impressive new widgets for your apps with iOS 14Extend the audience of your app by creating an App ClipImprove the flow of your code with the Combine frameworkEnhance your app by using Core LocationIntegrate Core Data to persist information in your appTrain and use machine learning models with Core MLCreate engaging augmented reality experiences with ARKit 4 and the Vision frameworkWho this book is for This book is for developers with some experience in iOS programming who want to enhance their application development skills by unlocking the full potential of the latest iOS version with Swift.
Learn How to Use Swift on the Server! Server Side Swift with Vapor

introduces you to the world of server development with the added bonus of using Swift. You'll learn how to build APIs, web sites, databases, application servers and use off site hosting solutions such as Heroku and AWS. You'll use many of Vapor's modules such as Fluent, Vapor's ORM, and Leaf, the templating engine for building web pages. Who This Book Is For This book is for iOS developers who already know the basics of iOS and Swift development and want to transfer that knowledge to writing server based applications. Topics Covered in Server Side Swift with Vapor: - HTTP: Learn the basics of how to make requests to and from servers. - Fluent: Learn how to use Fluent to save and manage your models in databases. - Controllers: Learn how to use controllers to route your requests and responses. - Leaf: Learn how Vapor's Leaf module and its templating language allow you to build dynamic web sites directly. - Middleware: Learn how built-in Vapor modules can assist with common tasks such as validating users, settings required response headers, serving static files and more. One thing you can count on: After reading this book, you'll be prepared to write your own server-side applications using Vapor and, of course, Swift 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.

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.

Mastering Swift 4- Fourth EditionPackt Publishing

Swift in Depth

Server-Side Swift with Vapor (Third Edition)

Mastering Swift 3 - Linux

Master Swift best practices to build modular applications for mobile, desktop, and server platforms
Mastering Swift
Data Structures & Algorithms in Swift (Fourth Edition)
iOS 11 Swift Programming Cookbook

In just 24 lessons of one hour or less, Sams Teach Yourself Swift in 24 Hours, Second Edition helps you build next-generation OS X and iOS apps with Apple's the Swift 2.x programming language. This book's straightforward, step-by-step approach helps you quickly master Swift's core concepts, structure, and syntax and use Swift to write safe, powerful, modern code. In just a few hours you'll be applying advanced features such as extensions, closures, protocols, and generics. Every lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success. Step-by-step instructions carefully walk you through the most common Swift development tasks. Practical, hands-on examples show you how to apply what you learn. Quizzes and exercises help you test your knowledge and stretch your skills. Notes and tips point out shortcuts and solutions. Learn how to... Set up your Swift development environment Master Swift's fundamental data types and operators Make the most of arrays and dictionaries Control program flow, modify execution paths, and iterate code Perform complex actions with functions Work with higher-order functions and closures Harness the power of structs, enums, classes, and class inheritance Customize initializers of classes, structs, and enums Implement instance methods, type methods, and advanced type functionality Take full advantage of Swift's

advanced memory allocation Extend type functionality with protocols and extensions Leverage the power of generics, chaining, and other advanced features Interoperate with Objective-C code Interact with user interfaces Take advantage of Swift's Standard Library features and functions Build robust applications and write faster and more efficient code with Swift 5 and Xcode 10 About This Video Walk through the advancements and changes the Swift language has to offer in its latest version Get comprehensive coverage of the tools and techniques needed to create multi-platform apps with Swift 5 Discover the new features and improvements to Swift 5 Get a practical experience with the tools, techniques, and concepts needed to build an iOS app from scratch In Detail Swift is the definitive language for Apple development today. It's a vital part of any iOS and macOS developer's skillset, helping them to build the most impressive and popular apps on the App Store the sort of apps that are essential to iPhone and iPad users every day. In this course, you'll find the key features of Swift 4.x and quickly learn how to use the newest updates to your development advantage. From Objective-C interoperability and ARC to closures and concurrency, this advanced Swift guide will develop your expertise and help you become fluent in this vital programming language. You'll gain an in-depth knowledge of some of the most sophisticated elements of Swift development, including protocol extensions, error-handling, and concurrency. You'll implement the power of protocol-oriented programming to write flexible and easier-to-manage code. By the end of this course, you'll be well acquainted with Swift and other essential tools, and you will be ready to tackle advanced iOS and macOS applications with Swift. Downloading the example code for this course: You can download the

example code files for this course on GitHub at the following link: https://github.com/PacktPublishing/Mastering-Swift-5-Programming . If you require support please email: customercare@packt.com.

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 "Swifty"—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

Dive into the latest release of the Swift programming language with this advanced Apple development book About This Book Discover the new features and improvements to Swift 3 Get to grips with advanced design patterns and techniques to write smarter, cleaner Swift code

Become a more fluent Swift developer and build powerful, impressive iOS and OS X applications. Who This Book Is For This book is for developers who want to dive into the newest version of Swift. If you are a developer that learns best by looking at, and working with code, then this book is for you. A basic understanding of Apple's tools is beneficial but not mandatory. What You Will Learn Dive into the core components of Swift 3.0, including operators, collections, control flow, and functions Create and use classes, structures, and enums Understand object-oriented Swift and see how to tackle inheritance, protocols, and extensions Develop a practical understanding of subscripts, optionals, and closures See how to use the new protocol extension and error handling features of Swift 3.0 Add concurrency to your applications using Grand Central Dispatch In Detail Swift is the definitive language of Apple development today. It's a vital part of any iOS and OS X developer's skillset, helping them to build the most impressive and popular apps on the App Store—the sort of apps that are essential to iPhone and iPad users every day. With version 3.0, the Swift team have added new features to improve the development experience—making it easier to get the results you want and customers expect. Inside, you'll find the key features of Swift 3.0 and quickly learn how to use the newest updates to your development advantage. From Objective-C interoperability to ARC, to closures and concurrency, this advanced Swift guide will develop your expertise and make you more fluent in this vital programming language. We give you in-depth knowledge of some of the most sophisticated elements of Swift development including protocol extensions, error-handling, design patterns, and concurrency, and guide you on how to use and apply them in your own

projects. You'll see how even the most challenging design patterns and programming techniques can be used to write cleaner code and to build more performant iOS and OS X applications. By the end of this book, you'll have a handle on effective design patterns and techniques, which means you'll soon be writing better iOS and OS X applications with a new level of sophistication and control. Style and approach Packed with practical examples that show you how to put the concepts you learn into practice quickly, we'll takes you through some of the most advanced and sophisticated elements of the language in a practical and actionable way. You can also download the code to use yourself

Discover recipes for building feature-rich, reliable iOS native apps and explore the latest features in Swift 5.3 with the help of proven industry standard recipes, modern design techniques, and popular strategies Key FeaturesUnderstand how closures work and make use of generics with protocols to write flexible codeDiscover the fundamentals of Swift and build apps with frameworks such as Foundation, Networking, and UIKitGet to grips with the new features of Swift 5.3, including SwiftUI, CoreML and the Vision FrameworkBook Description Swift is an exciting, multi-platform, general-purpose programming language, and with this book, you'll explore the features of its latest version, Swift 5.3. The book begins with an introduction to the basic building blocks of Swift 5.3, its syntax, and the functionalities of Swift constructs. You'll then discover how Swift Playgrounds provide an ideal platform to write, execute, and debug your Swift code. As you advance through the chapters, the book will show you how to bundle variables into tuples or sets, order your data with an array, store key-value pairs with

dictionaries, and use property observers. You'll also get to grips with the decision-making and control structures in Swift, examine advanced features such as generics and operators, and explore functionalities outside of the standard library. Once you've learned how to build iOS applications using UIKit, you'll find out how to use Swift for server-side programming, run Swift on Linux, and investigate Vapor. Finally, you'll discover some of the newest features of Swift 5.3 using SwiftUI and Combine to build adaptive and reactive applications, and find out how to use Swift to build and integrate machine learning models along with Apple's Vision Framework. By the end of this Swift book, you'll have discovered solutions to boost your productivity while developing code using Swift 5.3. What you will learnExplore basic to advanced concepts in Swift 5.3 programmingUnderstand conditional statements, loops, and how to handle errors in SwiftDefine flexible classes and structs using genericsUse advanced operators and create custom onesBuild iOS apps using the powerful features of UIKit or the new SwiftUI frameworkImport your own custom functionality into Swift PlaygroundsRun Swift on Linux and investigate server-side programming with the server-side framework VaporUse Swift to implement machine learning models using CoreML and VisionWho this book is for This book is for experienced iOS developers looking to learn about the diverse features offered by Swift 5.3, along with tips and tricks to efficiently code and build applications. Knowledge of general programming concepts will assist in understanding key concepts.
Swift in 24 Hours, Sams Teach Yourself
Deep dive into the latest edition of the Swift programming language, 5th Edition

A Hands-On Guide to Audio Programming for Mac and iOS
Design Patterns in Swift 5: Learn how to Implement the Gang of Four Design Patterns Using Swift 5. Improve Your Coding Skills.
Building Apps for macOS, iOS, and Beyond
Programming iOS 14
Understanding Coding with Scratch

If you're grounded in the basics of Swift, Xcode, and the Cocoa framework, this book provides a structured explanation of all essential real-world iOS app components. Through deep exploration and copious code examples, you'll learn how to create views, manipulate view controllers, and add features from iOS frameworks. Create, arrange, draw, layer, and animate views that respond to touch Use view controllers to manage multiple screens of interface Master interface classes for scroll views, table views, collection views, text, popovers, split views, web views, and controls Dive into frameworks for sound, video, maps, and sensors Access user libraries: music, photos, contacts, and calendar Explore additional topics, including files, networking, and threads Stay up-to-date on iOS 14 innovations, such as: Control action closures and menus Table view cell configuration objects Collection view lists and outlines New split view controller architecture Pointer customization on iPad New photo picker and limited photos authorization Reduced accuracy location Color picker, new page control behavior, revised date pickers, and more! Want to brush up on the basics? Pick up iOS

14 Programming Fundamentals with Swift to learn about Swift, Xcode, and Cocoa. Together with Programming iOS 14, you'll gain a solid, rigorous, and practical understanding of iOS 14 development.

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 ResultBest 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

"Learn how to make 3D games in Swift, using Apple's built-in 3D game framework: SceneKit. Through a series of mini-games and challenges, you will go from beginner to advanced and learn everything you need to make your own 3D game! By the time you're finished reading this book, you will have made 4 complete mini-games, including games similar to Fruit Ninja, Marble Madness, and Crossy Road!"--Back cover,

Learning to code can be tough, let alone figuring out how to build and publish iOS apps. iOS 13 & Swift 5 Programming is designed to be the ultimate beginner programming guide. We take you from knowing absolutely nothing about code and iOS development, and turn you into an app developer. You'll start off by learning the basics of the Swift

programming language. Then you will move on to more complex topics such as Object-oriented Programming and Model View Controller.After you have learned the basics of programming, you will dive in to iOS development by building your very first app. As the chapters progress you will build more complex iPhone and iPad apps, working with tools and frameworks such as Maps, Core Data, Networking, Gestures, and more.The book is rich with projects and exercises to help you reinforce what you have learned. By the end of the book you will have built multiple apps and you will have to skills to develop and publish your very own iOS apps to the Apple App Store.This book is based on the highly popular courses created by Devslopes that have been watched by over 350,000 students worldwide. The need for iOS developers has never been greater and this book could help you build your first app or land your dream job.

A step-by-step guide to learning iOS app development and exploring the latest Apple development tools Key FeaturesExplore the latest features of Xcode 11 and the Swift 5 programming language in this updated fourth editionKick-start your iOS programming career and have fun building your own iOS appsDiscover the new features of iOS 13 such as Dark Mode, iPad apps for Mac, SwiftUI, and moreBook Description iOS 13 comes with features ranging from Dark Mode and Catalyst through to SwiftUI and Sign In with Apple. If you're a beginner and are looking to experiment and work with these features to create your own apps, then this updated fourth edition gets you off to a strong start. The book offers a comprehensive introduction for programmers who are new to

iOS, covering the entire process of learning the Swift language, writing your own apps, and publishing them on the App Store. This edition is updated and revised to cover the new iOS 13 features along with Xcode 11 and Swift 5. The book starts with an introduction to the Swift programming language, and how to accomplish common programming tasks with it. You'll then start building the user interface (UI) of a complete real-world app, using the latest version of Xcode, and also implement the code for views, view controllers, data managers, and other aspects of mobile apps. The book will then help you apply the latest iOS 13 features to existing apps, along with introducing you to SwiftUI, a new way to design UIs. Finally, the book will take you through setting up testers for your app, and what you need to do to publish your app on the App Store. By the end of this book, you'll be well versed with how to write and publish apps, and will be able to apply the skills you've gained to enhance your apps. What you will learnGet to grips with the fundamentals of Xcode 11 and Swift 5, the building blocks of iOS developmentUnderstand how to prototype an app using storyboardsDiscover the Model-View-Controller design pattern, and how to implement the desired functionality within the appImplement the latest iOS features such as Dark Mode and Sign In with AppleUnderstand how to convert an existing iPad app into a Mac appDesign, deploy, and test your iOS applications with industry patterns and practicesWho this book is for This book is for anyone who has programming experience but is completely new to Swift and iOS app development. Experienced programmers looking to explore the latest iOS

13 features will also find this book useful.
Combine
Asynchronous Programming with Swift (Third Edition)
Build professional-grade iOS 14 applications with Swift 5.3 and Xcode 12.4, 4th Edition
SwiftUI Essentials - iOS 14 Edition
Hands-On Design Patterns with Swift
Learning Swift
Cooperative governance for network innovation, standards, and community

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.

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).
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 Coding was once an inaccessible activity for elementary students, but not any more. Scratch is an exciting and easy-to-learn coding program for people of all ages. Instead of lines of text, users code by dragging and dropping colorful, stackable blocks to create animations. With this colorful, intuitive, and simple application, even new Scratch users will begin to understand the logic behind coding in just minutes! Coding examples and photographs of age-appropriate students help readers feel at ease with STEM concepts. Sidebars and a graphic organizer help readers get the most out of this informative volume.

Learn Reactive Programming in Swift with RxSwift!The popularity of reactive programming continues to grow on an every-increasing number of platforms and languages. Rx lets developers easily and quickly build apps with code that can be understood by other Rx developers - even over different platforms.Not only will you learn how to use the RxSwift port to create complex reactive applications on iOS, you'll also see how to easily solve common application design issues by using RxSwift. Finally you'll discover how to exercise full control over the library and leverage the full power of reactive programming in your apps.This books is for iOS developers who already feel comfortable with iOS and Swift, and want to dive deep into development with RxSwift.Topics Covered in RxSwift:- Getting Started: Get an introduction to the reactive programming paradigm, learn the terminology involved and see how to begin using RxSwift in your projects.- Event Management: Learn how to handle asynchronous event sequences via two key concepts in Rx - Observables and Observers.- Being Selective: See how to work

with various events using concepts such as filtering, transforming, combining, and time operators.- UI Development: RxSwift makes it easy to work with UI of your apps using RXCocoa, which provides integration of both UIKit and Cocoa.- Intermediate Topics: Level up your RxSwift knowledge with chapters on reactive networking, multi-threading, and error handling.And much, much more!By the end of this book, you'll have hands-on experience solving common issues in a reactive paradigm - and you'l be well on your way to coming up with your own Rx patterns and solutions!

Persisting IOS App Data with Core Data in Swift

Increase productivity and build faster applications with Swift 5, 4th Edition

Mastering Swift 4- Fourth Edition

Mastering Swift 3

iOS 13 Programming for Beginners

Mastering Swift 5

Reactive Programming with Swift

Learn Data Structures & Algorithms in Swift!Data structures and

algorithms form the basis of computer programming and are the starting point for anyone looking to become a software engineer. Choosing the proper data structure and algorithm involves understanding the many details and trade-offs of using them, which can be time-consuming to learn - and confusing.This is where this book, Data Structures & Algorithms in Swift, comes to the rescue! In this book, you'll learn the nuts and bolts of how fundamental data structures and algorithms work by using easy-to-follow tutorials loaded with illustrations; you'll also learn by working in Swift playground code.Who This Book Is ForThis book is for developers who know the basics of Swift syntax and want a better theoretical understanding of what data structures and algorithms are to build more complex programs or ace a whiteboard interview.Topics Covered in Data Structures & Algorithms in Swift*Basic data structures and algorithms, including stacks, queues and linked lists. *How protocols can be used to generalize algorithms. *How to leverage the algorithms of the Swift standard library with your own data structures. *Trees, tries and graphs. *Building algorithms on top of other primitives. *A complete spectrum of sorting algorithms from

simple to advanced. *How to think about algorithmic complexity. *Finding shortest paths, traversals, subgraphs and much more.After reading this book, you'll have a solid foundation on data structures and algorithms and be ready to solve more complex problems in your apps elegantly.

Dive into Combine! Writing asynchronous code can be challenging, with a variety of possible interfaces to represent, perform, and consume asynchronous work - delegates, notification center, KVO, closures, etc. Juggling all of these different mechanisms can be somewhat overwhelming. Does it have to be this hard? Not anymore! In this book, you'll learn about Combine - Apple's framework to work with asynchronous events in a unified and reactive way that ensures your app is always up to date based on the latest state of its data. Who This Book Is For This book is for intermediate iOS developers who already know the basics of iOS and Swift development but are interested in learning declarative/reactive programming and take their app and state management to the next level. You'll also find this book interesting if you're interested in SwiftUI - as many of the reactive capabilities keeping your SwiftUI views up-to-date are

built on top of Combine. Topics Covered in Combine: Asynchronous Programming with Swift What & Why: Learn what is Combine and reactive programming and the problems they solve, and how you can unify all of your asynchronous piece of work. Operators: Learn how to compose, transform, filter and otherwise manipulate different pieces of asynchronous work using operators. In Practice: You'll gain knowledge on various topics and techniques you'll leverage when writing your own real-life apps, as well as practice these techniques with actual hands-on apps and projects. SwiftUI: You'll learn about how Combine is deeply rooted within SwiftUI and provides it with the ability to reactively update its views based on the state of your app. Advanced Combine: Once you've got a handle on the basics, you'll dive into advanced Combine topics such as Error Handling, Schedulers, and Custom Publishers. By the end of this book, you'll be a pro in building full-fledged applications using Combine's various abilities.

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. Audio can affect the human brain in the most powerful and profound ways. Using Apple's Core Audio, you can leverage all that power in your own Mac and iOS software, implementing features ranging from audio capture to real-time effects, MP3 playback to virtual instruments, web radio to VoIP support. The most sophisticated audio programming system ever created, Core Audio is not simple. In Learning Core Audio , top Mac programming author Chris Adamson and legendary Core Audio expert Kevin Avila fully explain this challenging framework, enabling experienced Mac or iOS programmers to make the most of it. In plain language, Adamson and Avila explain what Core Audio can do, how it works, and how it builds on the natural phenomena of sound and the human language of audio. Next, using crystal-clear code examples, they guide you through recording, playback,

format conversion, Audio Units, 3D audio MIDI connectivity, and overcoming unique challenges of Core Audio programming for iOS. Coverage includes: mastering Core Audio's surprising style and conventions; recording and playback with Audio Queue; synthesizing audio; perform effects on audio streams; capturing from the mic; mixing multiple streams; managing file streams; converting formats; creating 3D positional audio; using Core MIDI on the Mac; leveraging your Cocoa and Objective-C expertise in Core Audio's C-based environment, and much more. When you've mastered the "black arts" of Core Audio, you can do some serious magic. This book will transform you from an acolyte into a true Core Audio wizard.

Master the art of writing beautiful and powerful Python by using all of the features that Python 3.5 offers About This Book Become familiar with the most important and advanced parts of the Python code style Learn the trickier aspects of Python and put it in a structured context for deeper understanding of the language Offers an expert's-eye overview of how these advanced tasks fit together in Python as a whole along with practical examples Who This Book Is For Almost anyone can learn to write

working script and create high quality code but they might lack a structured understanding of what it means to be 'Pythonic'. If you are a Python programmer who wants to code efficiently by getting the syntax and usage of a few intricate Python techniques exactly right, this book is for you. What You Will Learn Create a virtualenv and start a new project Understand how and when to use the functional programming paradigm Get familiar with the different ways the decorators can be written in Understand the power of generators and coroutines without digressing into lambda calculus Create metaclasses and how it makes working with Python far easier Generate HTML documentation out of documents and code using Sphinx Learn how to track and optimize application performance, both memory and cpu Use the multiprocessing library, not just locally but also across multiple machines Get a basic understanding of packaging and creating your own libraries/applications In Detail Python is a dynamic programming language. It is known for its high readability and hence it is often the first language learned by new programmers. Python being multi-paradigm, it can be used to achieve the same thing in different ways and it is compatible

across different platforms. Even if you find writing Python code easy, writing code that is efficient, easy to maintain, and reuse is not so straightforward. This book is an authoritative guide that will help you learn new advanced methods in a clear and contextualised way. It starts off by creating a project-specific environment using venv, introducing you to different Pythonic syntax and common pitfalls before moving on to cover the functional features in Python. It covers how to create different decorators, generators, and metaclasses. It also introduces you to functools.wraps and coroutines and how they work. Later on you will learn to use asyncio module for asynchronous clients and servers. You will also get familiar with different testing systems such as py.test, doctest, and unittest, and debugging tools such as Python debugger and faulthandler. You will learn to optimize application performance so that it works efficiently across multiple machines and Python versions. Finally, it will teach you how to access C functions with a simple Python call. By the end of the book, you will be able to write more advanced scripts and take on bigger challenges. Style and Approach This book is a comprehensive

guide that covers advanced features of the Python language, and communicate them with an authoritative understanding of the underlying rationale for how, when, and why to use them.
Develop and Design
Mastering Swift 5 Programming

Advanced Swift
Mastering iOS 14 Programming
The Society for Worldwide Interbank Financial Telecommunication (SWIFT)
Solutions & Examples for IOS Apps

A comprehensive guide to understanding the language of C offers solutions for everyday programming tasks and provides all the necessary information to understand and use common programming techniques. Original. (Intermediate).
"I don't feel in control of my project's architecture." - You"MVC simply doesn't cut it. There must be a better solution." - Yours TrulyDespite its widespread, the Model-View-Controller pattern just doesn't cut it for most Swift projects. Take control of your Swift projects with the Model-View-

ViewModel pattern.Massive View Controller SyndromeFiring up Xcode and starting a new project is a great feeling. The first few days or weeks don't feel like work. Everything goes according to plan.But as the code base of your project grows, it becomes harder and harder to manage the project. The view controllers of your project start to put on weight ... a lot of weight. They become more than view controllers. They take on responsibilities they didn't sign up for. Don't they?Yet you've done everything right. You've stuck to the rules of the Model-View-Controller pattern. Why have you coded yourself in a corner? And why is it frustrating or downright scary to add features or refactor existing functionality?It's Time to Cure MVCIf your project is suffering from Massive View Controller syndrome, then the Model-View-ViewModel pattern is the cure to your problem. The Model-View-ViewModel pattern has been around for many, many years, but it only recently gained traction in the Cocoa community.MVVM extends MVC by resolving common issues. The result is a robust application architecture with lean view controllers, improved testability, and a better separation of concerns. How does that sound?Take Control of Your Project With MVVMIn Mastering MVVM With Swift, we refactor an existing application built with MVC to use MVVM instead. The results are dramatic and the

MVVM pattern is surprisingly easy to adopt in your own projects.You learn the differences between Model-View-Controller and Model-View-ViewModel, highlighting the benefits Model-View-ViewModel has over Model-View-Controller.After a short introduction, we take an application built with Model-View-Controller and refactor it to use Model-View-ViewModel instead. Along the way, you learn about the anatomy of view models, how to create them, and how to test them.Last but not least, we add protocols and protocol-oriented programming to the mix to further simplify the view controllers in the project.At the end of this course, you have the knowledge and, more importantly, the hands-on experience to apply Model-View-ViewModel in your own projects.Ready for Xcode 9 and Swift 4In Mastering MVVM With Swift, you learn everything you need to know to integrate MVVM in a new or an existing Swift project. We focus on the key aspects of the pattern and refactor an application that takes advantage of the core features of MVVM. We use the latest and greatest to build an application, which means we use Xcode 9 and Swift 4.Battling Massive View Controller SyndromeAre the view controllers of your projects suffering from Massive View Controller syndrome? You've carefully crafted the architecture of your application using the Model-View-

Controller pattern and, yet, the view controllers of your project are ready to burst and they're impossible to test.Adding a feature forces you to wade through hundreds of lines of code. You hope you don't break anything while you carefully add a few lines of code. Don't get me wrong. Your code isn't bad. But there's just so much of it. You've applied the Model-View-Controller pattern like you were told to and you still end up with an architecture you aren't quite happy with. Does this sound familiar?It's Not You. It's MVC.Because Apple's frameworks are impregnated with the Model-View-Controller pattern we think it's the right or only tool for the job. Don't make the same mistake. There's nothing wrong with the Model-View-Controller pattern, but there are better alternatives, especially if you're using Swift.

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.

Learn to build fast and robust applications on the Linux platform with Swift

About This Book Create robust applications by building a strong foundation in the Swift Language Utilize Swift 3 on the embedded Linux platform for IoT and Robotic projects Build more flexible and high-performing applications on desktop, server, and embedded Linux platforms Who This Book Is For This book is for Linux developers who are interested in quickly learning how to use Swift to create exciting applications on Linux platforms. What You Will Learn Install Swift on the Linux platform Explore the power of the Swift language Get to know the proper design techniques Understand Swift's new Core Library Implement popular design patterns with Swift Integrate C libraries with Swift Using Swift on Single-Board Computers Learn how to add concurrency to your application with Grand Central Dispatch Learn how to work with Swift Generics Learn how to use the Protocol-Oriented design paradigm In Detail Swift is a modern, fast, and safe programming language created by Apple. Writing Swift is interactive and fun, the syntax is concise yet expressive, and the code runs lightning-fast. Swift's move to open source has been embraced with open arms and has seen increased adoption in the Linux platform. Our book will introduce you to the Swift language, further delving into all the key concepts you need to create applications

for desktop, server, and embedded Linux platforms. We will teach you the best practices to design an application with Swift 3 via design patterns and Protocol-Oriented Programming. Further on, you will learn how to catch and respond to errors within your application. When you have gained a strong knowledge of using Swift in Linux, we'll show you how to build IoT and robotic projects using Swift on single board computers. By the end of the book, you will have a solid understanding of the Swift Language with Linux and will be able to create your own applications with ease. Style and approach This easy-to-follow, code-rich guide is filled with examples that demonstrate how to put the concepts into practice. You'll also get design patterns and best practices to get you writing better applications on the Linux platform.

If you are a developer that learns best by looking at, and working with, code, then this book is for you. A basic understanding of Apple's tools is beneficial but not mandatory.

Learn to Develop iOS Apps Using SwiftUI, Swift 5 and Xcode 12

The Big Nerd Ranch Guide

Solutions and Examples for iOS Apps

Learning Core Audio

Implementing Practical Data Structures with Swift
Building Web APIs and Web Apps in Swift
iOS Development with Swift

Mastering Arduino is a practical, no-nonsense guide that will teach you the electronics and programming skills that you need to create advanced Arduino projects. Key FeaturesCovers enough electronics and code for users at any levelIncludes complete circuit diagrams for all projectsFinal robot project combines knowledge from all the chaptersBook Description Mastering Arduino is an all-in-one guide to getting the most out of your Arduino. This practical, no-nonsense guide teaches you all of the electronics and programming skills that you need to create advanced Arduino projects. This book is packed full of real-world projects for you to practice on, bringing all of the knowledge in the book together and giving you the skills to build your own robot from the examples in this book. The final two chapters discuss wireless technologies and how they can be used in your projects. The book begins with the basics of electronics, making sure that you understand components, circuits, and prototyping before moving on. It then performs the same function for code, getting you

into the Arduino IDE and showing you how to connect the Arduino to a computer and run simple projects on your Arduino. Once the basics are out of the way, the next 10 chapters of the book focus on small projects centered around particular components, such as LCD displays, stepper motors, or voice synthesizers. Each of these chapters will get you familiar with the technology involved, how to build with it, how to program it, and how it can be used in your own projects. What you will learnExplains the basics of electronics and circuits along with the Arduino IDE and basic C operationsUse sensors to build a mini weather stationControl LEDs using codePower a robot arm using stepper motorsRemotely control your Arduino using RF, Bluetooth LE, and Bluetooth ClassicMake a sound tone generator with buttonsWho this book is for Mastering Arduino is for anybody who wants to experiment with an Arduino board and build simple projects. No prior knowledge is required, as the fundamentals of electronics and coding are covered in this book as well as advance projects.
Dive into the latest release of the Swift programming language with this advanced development book for building highly performant applications.About This Book* Harness the latest and most advanced

features of Swift 4 to develop quality iOS and macOS applications* Comprehensive coverage of all the advanced features of Swift and guidance on advanced design techniques* Dive deep into protocol extensions, learn new error handling model, and use featured Swift design patterns to write more efficient code* Get to grips with advanced design techniques to write smarter, cleaner Swift codeWho This Book Is ForThis book is for developers who want to delve into the newest version of Swift. If you are a developer who learns best by looking at and working with code, then this book is for you. A basic understanding of Apple's tools is beneficial but not mandatory.What You Will Learn* Delve into the core components of Swift 4.0, including operators, collections, control flows, and functions* Create and use classes, structures, and enumerations* Understand protocol-oriented design and see how it can help you write better code* Develop a practical understanding of subscripts and extensions* Add concurrency to your applications using Grand Central Dispatch and Operation Queues* Implement generics and closures to write very flexible and reusable code* Make use of Swift's error handling and availability features to write safer codeIn DetailSwift is the definitive

language for Apple development today. It's a vital part of any iOS and macOS developer's skillset, helping them to build the most impressive and popular apps on the App Store-the sort of apps that are essential to iPhone and iPad users every day. With version 4.0, the Swift team has added new features to improve the development experience, making it easier to get the results you want and customers expect.Inside, you'll find the key features of Swift 4.0 and quickly learn how to use the newest updates to your development advantage. From Objective-C interoperability and ARC to closures and concurrency, this advanced Swift guide will develop your expertise and help you become fluent in this vital programming language.We'll give you an in-depth knowledge of some of the most sophisticated elements of Swift development, including protocol extensions, error-handling, design patterns, and concurrency. We'll guide you on how to use and apply them in your own projects. You'll see how to leverage the power of protocol-oriented programming to write flexible and easier-to-manage code.Style and ApproachA Step-by-step advanced guide

Harness the power of the latest edition with this in-depth and

comprehensive guide to the Swift language Key FeaturesFifth edition of this bestselling book, improved and updated to cover the latest version of the Swift 5 programming languageGet to grips with popular and modern design techniques to write easy-to-manage Swift codeLearn how to use core Swift features such as concurrency, generics, and copy-on-write in your codeBook 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 learnUnderstand core Swift components, including operators, collections, control flows, and functionsLearn how and when to use classes, structures, and enumerationsUnderstand how to use protocol-oriented design with extensions to write easier-to-manage codeUse design patterns with Swift, to solve commonly occurring design problemsImplement copy-on-write for you custom value types to improve performanceAdd concurrency to your applications using Grand Central Dispatch and Operation QueuesImplement generics to write flexible and reusable codeWho 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.

A comprehensive guide for programming enthusiasts who wish to gain

a firm command of the fundamentals and advanced Swift concepts Key FeaturesSixth edition of this bestselling book, improved and updated to cover the latest version of the Swift 5.3 programming languageGet to grips with popular and modern design techniques to write easy-to-manage Swift codeUse core Swift features such as concurrency, generics, and copy-on-write in your codeBook 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 learnUnderstand core Swift components, such as operators, collections, control flows, and functionsIdentify how and when to use classes, structures, and enumerationsUse protocol-oriented design with extensions to write easy-to-manage codeLeverage design patterns with Swift to solve commonly occurring design problemsApply copy-on-write for your custom value types to improve performanceAdd concurrency to your applications using Grand Central Dispatch and operation queuesImplement generics to write flexible and reusable codeWho 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

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 Beginning 3D Apple Game Development with Swift 4 Get started with building iOS apps with Swift 5 and Xcode 11, 4th

Edition

A project-based approach to electronics, circuits, and programming

RxSwift (Fourth Edition)

A Beginner's Guide

Mastering Swift 5.3

Implement Stacks, Queues, Dictionaries, and Lists in Your Apps

Embrace the Protocol-Oriented Programming paradigm, for better code maintainability and increased performance, with Swift programming. Key FeaturesLeverage the power of Protocol-Oriented Programming in your applications Leverage generics to create very flexible frameworksLearn how to implement common design patterns in a protocol-oriented wayBook Description Protocol-oriented programming is an incredibly powerful concept at the heart of Swift's design. Swift's standard library was developed using POP techniques, generics, and first-class value semantics; therefore, it is important for every Swift developer to understand these core concepts and take advantage of them. The fourth edition of this book is improved and updated to the latest version of the Swift programming language. This book will help you understand what protocol-oriented programming is all about and how it is

different from other programming paradigms such as object-oriented programming. This book covers topics such as generics, Copy-On-Write, extensions, and of course protocols. It also demonstrates how to use protocol-oriented programming techniques via real-world use cases. By the end of this book, you will know how to use protocol-oriented programming techniques to build powerful and practical applications. What you will learnLearn the differences between object-oriented programming and protocol-oriented programmingUnderstand why value types should be prioritized over reference typesDelve into protocols, protocol inheritance, protocol composition, and protocol extensionsLearn how to implement COW (Copy-On-Write) within your custom value typesUnderstand how memory management works in Swift and how to avoid common pitfallsDesign applications by starting with the protocol rather than the implementationWho this book is for This book is intended for Swift developers who have, at minimum an introductory knowledge of the Swift programming language and would like to understand how they can use Protocol-Oriented Programming techniques in their applications.

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 arraysImplement stacks, queues, and lists in your appsSort 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

Learn Core Data With Swift!Take control of your data in iOS apps using Core Data, through a series of high quality hands-on tutorials.Start with the basics like setting up your own Core Data Stack all the way to advanced topics like migration, performance, multithreading, and more! By the end of this book, you'll have hands-on experience with Core Data and will be ready to use it in your own apps.Who This Book Is For:This book is for intermediate iOS developers who already know the basics of iOS and Swift development but want to learn how to use Core Data to save data in their apps.Topics Covered in Core Data by Tutorials:Your First Core Data App: You'll click File\New Project and write a Core Data app from scratch!NSManagedObject Subclasses: Learn how to create your own subclasses of NSManagedObject - the base data storage class in Core Data.The Core Data Stack: Learn how the main objects in Core Data work together, so you can move from the starter Xcode template to your own system.Intermediate Fetching: This chapter covers how to fetch data with Core Data - fetch requests,

predicates, sorting and asynchronous fetching.NSFetchedResultsController: Learn how to make Core Data play nicely with table views using NSFetchedResultsController!Versioning and Migration: In this chapter, you'll learn how to migrate your user's data as they upgrade through different versions of your data model.Unit Tests: In this chapter, you'll learn how to set up a test environment for Core Data and see examples of how to test your models.Measuring and Boosting Performance: Learn how to measure your app's performance with various Xcode tools and deal with slow spots in your code.Multiple Managed Object Contexts: Learn how multiple managed object contexts can improve performance and make for cleaner code.Core Data and CloudKit: Learn how to synchronize Core Data across all of a user's devices.

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 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! Table of Contents PART 1 - INTRODUCING XCODE AND SWIFT Your first iOS application Introduction to Swift playgrounds Swift objects PART 2 - BUILDING YOUR INTERFACE View controllers, views, and outlets User interaction Adaptive layout More adaptive layout Keyboard notifications, animation, and scrolling PART 3 - BUILDING YOUR APP Tables and navigation Collections, searching, sorting, and tab bars Local data persistence Data persistence in iCloud

Graphics and media Networking Debugging and testing PART 4 - FINALIZING YOUR APP Distributing your app What's next?
Core Data by Tutorials (Eighth Edition)
IOS 13 & Swift 5 Programming
Upgrade your knowledge and become an expert in the latest version of the Swift programming language, 6th Edition
Swift Programming
Mastering Python
Swift Protocol-Oriented Programming
Mastering Arduino
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 innovative 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

handson 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 includes additional resources.
Swift for Beginners
IOS 8 Swift Programming Cookbook
3D Apple Games by Tutorials Second Edition
MASTERING ALGORITHMS WITH C. Avec une disquette
Mastering MVVM with Swift: Updated for Xcode 9 and Swift 4
Over 60 proven recipes for developing better iOS applications

with Swift 5.3, 2nd Edition
Swift Cookbook