# *Swift Programming: The Big Nerd Ranch Guide (Big Nerd Ranch Guides)*

**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.**

**Swift ProgrammingThe Big Nerd Ranch GuidePearson Technology Group**

**Learn Machine Learning!Machine learning is one of those topics that can be daunting at first blush. It's not clear where to start, what path someone should take and what APIs to learn in order to get started teaching machines how to learn.This is where Machine Learning by Tutorials comes in! In this book, we'll hold your hand through a number of tutorials, to get you started in the world of machine learning. We'll cover a wide range of popular topics in the field of machine learning, while developing apps that work on iOS devices.Who This Book Is ForThis books is for the intermediate iOS developer who already knows the basics of iOS and Swift development, but wants to understand how machine learning works.Topics covered in Machine Learning by TutorialsCoreML: Learn how to add a machine learning model to your iOS apps, and how to use iOS APIs to access it.Create ML: Learn how to create your own model using Apple's Create ML Tool.Turi Create and Keras: Learn how to tune parameters to improve your machine learning model using more advanced tools.Image Classification: Learn how to apply machine learning models to predict objects in an image.Convolutional Networks: Learn advanced machine learning techniques for predicting objects in an image with Convolutional Neural Networks (CNNs).Sequence Classification: Learn how you can use recurrent neural networks (RNNs) to classify motion from an iPhone's motion sensor.Text-to-text Transform: Learn how to use machine learning to convert bodies of text between two languages.By the end of this book, you'll have a firm understanding of what machine learning is, what it can and cannot do, and how you can use machine learning in your next app!**

**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**

**Hello Swift!**

**Learn Swift Programming by Examples**

**Programming with Quartz**

**SwiftUI for Masterminds**

**Programming in Objective-C**

**Swift Cookbook**

Stop trying to write Swift as if it were Objective-C, and start using powerful, modern technologies such as functional programming, protocol-oriented programming, lazy variables, enum associated values, operator overloading and more. 100% ADVANCED: You'll learn key features such as @autoclosure, rethrows, variadic functions, generics, lazy variables, operator overloading, and more. POP READY: Dive into protocol-oriented programming with real-world examples that let you see for yourself why it's such a revolutionary approach to development. MONADS EXPLAINED: Struggling with functional programming? Pro Swift explains map(), flatMap(), reduce() and more, using practical examples you can apply immediately. Pro Swift teaches you to write faster, more efficient Swift with techniques you can apply in your own code immediately - upgrade your skills today!

Learn iPhone and iPad Programming via Tutorials! If you're new to iOS and Swift, or to programming in general, learning how to write an app can seem incredibly overwhelming. That's why you need a book that: Shows you how to write an app step-by-step Has tons of illustrations and screenshots to make everything clear Is written in a fun and easygoing manner! In this book, you will learn how to make your own iPhone and iPad apps, through a series of four epic-length hands-on tutorials. These hands-on tutorials describe in full detail how to build a new app from scratch. Four tutorials, four apps. Each new app will be a little more

advanced than the one before, and together they cover everything you need to know to make your own apps. By the end of the series you'll be experienced enough to turn your ideas into real apps that you can sell on the App Store. Tutorial 1: Bull's Eye. In the first tutorial in the book, you'll start off by building a simple but fun game to learn the basics of iPhone programming. In the process, you'll get familiar with Xcode, Interface Builder, and Swift in an easygoing manner. Tutorial 2: Checklists. In the second tutorial in the series, you'll create your own to-do list app. In the process, you'll learn about the fundamental design patterns that all iOS apps use and about table views, navigation controllers and delegates. Now you're making apps for real! Tutorial 3: MyLocations. In the third tutorial, you'll develop a location-aware app that lets you keep a list of spots that you find interesting. In the process, you'll learn about Core Location, Core Data, Map Kit, and much more! Tutorial 4: StoreSearch. Mobile apps often need to talk to web services and that's what you'll do in this final tutorial of the book. You'll make a stylish app for iPhone and iPad that lets you search for products on the iTunes store using HTTP requests and JSON. It is my sincere belief that this series can turn you from a complete newbie into an accomplished iOS developer, but you do have to put in the time and effort. By writing this book I've done my part, now it's up to you...

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.

Presents an introduction to Objective-C, covering such topics as classes and objects, data types, program looping, inheritance, polymorphism, variables, memory management, and archiving.

Beginning Machine Learning for Apple and IOS

Swift Essentials

Get started with building iOS apps with Swift 5.3 and Xcode 12, 5th Edition

Over 60 proven recipes for developing better iOS applications with Swift 5.3, 2nd Edition

The Series on How to Write IPhone and IPad Apps: Diving In

Move into iOS development by getting a firm grasp of its fundamentals, including the Xcode 12 IDE, Cocoa Touch, and the latest

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

Updated for Xcode 11, Swift 5, and iOS 13, iOS Programming: The Big Nerd Ranch Guide leads you through the essential concepts, tools, and techniques for developing iOS applications. After completing this book, you will have the know-how and the confidence you need to tackle iOS projects of your own. Based on Big Nerd Ranch's popular iOS training and its well-tested materials and methodology, this bestselling guide teaches iOS concepts and coding in tandem. The result is instruction that is relevant and useful. Throughout the book, the authors explain what's important and share their insights into the larger context of the iOS platform. You get a real understanding of how iOS development works, the many features that are available, and when and where to apply what you've learned.

Provides step-by-step instructions for learning Cocoa, discussing such topics as Objective-C, controls, helper objects, archiving, Nib files and NSWindowController, and creating interface builder palettes.

Ready to build mobile apps that out-perform the rest? If you’re an iOS developer with app-building experience, this practical guide provides tips and best practices to help you solve many common performance issues. You’ll learn how to design and optimize iOS apps that deliver a smooth experience even when the network is poor and memory is low. Today’s picky users want fast and responsive apps that don’t hog resources. In this book, author Gaurav Vaish demonstrates methods for writing optimal code from an engineering perspective, using reusable Objective-C code that you can use right away. Up your game and create high-performance native iOS apps that truly stand out from the crowd. Measure key performance indicators—attributes that constitute and affect app performance Write efficient apps by minimizing memory and power consumption, and explore options for using available CPU cores Optimize your app’s lifecycle and UI, as well as its networking, data sharing, and security features Learn about application testing, debugging and analysis tools, and monitoring your app in the wild Collect data from real users to analyze app usage, identify bottlenecks, and provide fixes Use iOS 9 upgrades to improve your app’s performance

iOS 14 Programming Fundamentals with Swift

iOS 14 Programming for Beginners

IOS Programming

Swift Programming

Objective-C Programming

2D and PDF Graphics in Mac OS X

**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!**

**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**

**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.**

**Front-end development targets the browser, putting your applications in front of the widest range of users regardless of device or operating system. This guide will give you a solid foundation for creating rich web experiences across platforms. Focusing on JavaScript, CSS3, and HTML5, this book is for programmers with a background in other platforms and developers with previous web experience who need to get up to speed quickly on current tools and best practices. Each chapter of this book will guide you through essential concepts and APIs as you build a series of applications. You will implement responsive UIs, access remote web services, build applications with Ember.js, and more. You will also debug and test your code with cutting-edge development tools and harness the power of Node.js and the wealth of open-source modules in the npm registry. After working through the step-by-step example projects, you will understand how to build modern websites and web applications.**

**iOS Development with Swift**

**High Performance IOS Apps**

**IOS 15 Programming for Beginners - Sixth Edition**

**Cocoa Programming for Mac OS X**

**Metal Programming Guide**

**Mastering Swift 5.3**

**Android Programming: The Big Nerd Ranch Guide is an introductory Android book for programmers with Java experience. Based on Big Nerd Ranch's popular Android Bootcamp course, this guide will lead you through the wilderness using hands-on example apps combined with clear explanations of key concepts and APIs. This book focuses on practical techniques for developing apps compatible with Android 4.1 (Jelly Bean) and up, including coverage of Lollipop and material design. Write and run code every step of the way, creating apps that integrate with other Android apps, download and display pictures from the web, play sounds, and more. Each chapter and app has been designed and tested to provide the knowledge and experience you need to get started in Android development. Big Nerd Ranch specializes in developing and designing innovative applications for clients around the world. Our experts teach others through our books, bootcamps, and onsite training. Whether it's Android, iOS, Ruby and Ruby on Rails, Cocoa, Mac OS X, JavaScript, HTML5 or UX/UI, we've got you covered. The Android team is constantly improving and updating Android Studio and other tools. As a result, some of the instructions we provide in the book are no longer correct. You can find an addendum**

**addressing breaking changes at: https://github.com/bignerdranch/AndroidCourseResources/raw/master/2ndEdition/Errata/2eAddendum.pdf.**

**On the outside, seventeen-year-old Madelyne Summers looks like your typical blond cheerleader—perky, popular, and dating the star quarterback. But inside, Maddie spends more time agonizing over what will happen in the next issue of her favorite comic book than planning pep rallies with her squad. That she's a nerd hiding in a popular girl's body isn't just unknown, it's anti-known. And she needs to keep it that way.Summer is the only time Maddie lets her real self out to play, but when she slips up and the adorkable guy behind the local comic shop's counter uncovers her secret, she's busted. Before she can shake a pom-pom, Maddie's whisked into Logan's world of comic conventions, live-action role-playing, and first-person-shooter video games. And she loves it. But the more she denies who she really is, the deeper her lies become...and the more she risks losing Logan forever.**

**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**

**This first book in the series from Kevin McNeish is specifically designed to teach non-programmers how to create Apps for the iPhone and iPad.**

**Machine Learning by Tutorials (Second Edition)**

**Upgrade your knowledge and become an expert in the latest version of the Swift programming language, 6th Edition**

**The Big Nerd Ranch Guide**

**Beginning IOS Development with Swift**

**Kickstart Your Mobile App Development Journey by Building IOS Apps with Swift 5.5 and Xcode 13**

**Swift in 24 Hours, Sams Teach Yourself**

***On December 8, 2013, US President Barack Obama "asked every American to give it a shot to learn to code" (watch it here), kicking off the Hour of Code campaign for Computer Science Education Week 2013. "Learning these skills isn't just important for your future, it's important for our country's future," President Obama said. The message is clear: coding (aka. programming) is an important skill for this Information Age, and many will agree. Some might wonder: there are many "how to program" books, why another one? A typical how-to-program book will go through the programming concepts, syntax and followed by demonstrations with simple examples. I have read dozens of them (for different programming languages) and taught this way at universities. It was not an effective approach. It is more like a teacher dumping knowledge upon students. I believe a better way is to engage students in doing carefully selected programming exercises and guiding them solving interesting and useful computer programs. New programming concepts are introduced gradually. I put this into practices by teaching my 13-year old daughter Courtney. This book is the outcome of the journey.***

***This 6 level course in American English aims to make sure that every student has the tools they need to succeed in English with fun topics and activities that motivate students to learn***

***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?***

***Features hands-on sample projects and exercises designed to help programmers create iOS applications.***

***Big English Starter Activity Book***

***A Hands-on Guide to the Fundamentals of IOS Programming***

***Develop and Design***

***Advanced Mac OS X Programming***

***The Big Nerd Ranch Guide, 3rd Edition***
***Pro Swift - Swift 4. 1 Edition***

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

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.

Learn iOS app development and work with Xcode 13 and Apple's iOS 15 simulators Key Features: Explore the latest features of Xcode 13 and the Swift 5.5 programming language in this updated sixth edition Start your iOS programming career and have fun building your own iOS apps Discover the new features of iOS 15 such as Mac Catalyst, SwiftUI, Swift Concurrency, and SharePlay Book Description: With almost 2 million apps on the App Store, iOS mobile apps continue to be incredibly popular. Anyone can reach millions of customers around the world by publishing their apps on the App Store. iOS 15 Programming for Beginners is a comprehensive introduction for those who are new to iOS. It covers the entire process of learning the Swift language, writing your own app, and publishing it on the App Store. Complete with hands-on tutorials, projects, and self-assessment questions, this easy-to-follow guide will help you get well-versed with the Swift language to build your apps and introduce exciting new technologies that you can incorporate into your apps. You'll learn how to publish iOS apps and work with Mac Catalyst, SharePlay, SwiftUI, Swift concurrency, and much more. By the end of this iOS development book, you'll have the knowledge and skills to write and publish interesting apps, and more importantly, to use the online resources available to enhance your app development journey. What You Will Learn: Get to grips with the fundamentals of Xcode 13 and Swift 5.5, the building blocks of iOS development Understand how to prototype an app using storyboards Discover the Model-View-Controller design pattern and how to implement the desired functionality within an app Implement the latest iOS features such as Swift Concurrency and SharePlay Convert an existing iPad app into a Mac app with Mac Catalyst Design, deploy, and test your iOS applications with design patterns and best practices Who this book is for: This book is for anyone who has programming experience but is new to Swift and iOS app development. Basics knowledge of programming, including loops, boolean, and so on, is necessary.

Renowned Excel experts Bill Jelen (MrExcel) and Michael Alexander help you crunch data from any source with Excel 2019 pivot tables. Use Excel 2019 pivot tables and pivot charts to produce powerful, dynamic reports in minutes instead of hours, to take control of your data and your business. Even if you’ve never created a pivot table before, this book will help you leverage all their remarkable flexibility and analytical power–including valuable improvements in Excel 2019 and Excel in

Office 365. Drawing on more than 45 combined years of Excel experience, Bill Jelen and Michael Alexander offer practical “recipes” for solving real business problems, help you avoid common mistakes, and present tips and tricks you’ll find nowhere else. By reading this book, you will: • Master easy, powerful ways to create, customize, change, and control pivot tables • Control all future pivot tables using new pivot table defaults • Transform huge data sets into clear summary reports • Instantly highlight your most profitable customers, products, or regions • Use Power Query to quickly import, clean, shape, and analyze disparate data sources • Build geographical pivot tables with 3D Map • Construct and share state-of-the-art dynamic dashboards • Revamp analyses on the fly by dragging and dropping fields • Build dynamic self-service reporting systems • Share your pivot tables with colleagues • Create data mashups using the full Power Pivot capabilities of Excel 2019 and Excel in Office 365 • Automate pivot tables with macros and VBA • Save time by adapting reports with GetPivotData • Discover today’s most useful pivot table tips and shortcuts

Programming iOS 14

Design Patterns in Swift 5: Learn how to Implement the Gang of Four Design Patterns Using Swift 5. Improve Your Coding Skills.

IOS App Development for Non-Programmers - Book 1

iPhone Programming

Cocoa Programming for OS X

IOS Apprentice

**Based on Big Nerd Ranch ’ s popular iPhone Bootcamp class, iPhone Programming: The Big Nerd Ranch Guide leads you through the essential tools and techniques for developing applications for the iPhone, iPad, and iPod Touch. In each chapter, you will learn programming concepts and apply them immediately as you build an application or enhance one from a previous chapter. These applications have been carefully designed and tested to teach the associated concepts and to provide practice working with the standard development tools Xcode, Interface Builder, and Instruments. The guide ’ s learn-while-doing approach delivers the practical knowledge and experience you need to design and build real-world applications. Here are some of the topics covered: Dynamic interfaces with animation Using the camera and photo library User location and mapping services Accessing accelerometer data Handling multi-touch gestures Navigation and tabbed applications Tables and creating custom rows Multiple ways of storing and loading data: archiving, Core Data, SQLite Communicating with web services ALocalization/Internationalization "After many 'false starts' with other iPhone development books, these clear and concise tutorials made the concepts gel for me. This book is a definite must have for any budding iPhone developer." –Peter Watling, New Zealand, Developer of BubbleWrap**

**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.**

**Covering the bulk of what you need to know to develop full-featured applications for OS X, this edition is updated for OS X Yosemite (10.10), Xcode 6, and Swift. Written in an engaging tutorial style and class-tested for clarity and accuracy, it is an invaluable resource for any Mac programmer. The authors introduce the two most commonly used Mac developer tools: Xcode and Instruments. They also cover the Swift language, basic application architecture, and the major design patterns of Cocoa. Examples are illustrated with exemplary code, written in the idioms of the Cocoa community, to show you how Mac programs should be written. After reading this book, you will know enough to understand and utilize Apple ’ s online documentation for your own unique needs. And you will know enough to write your own stylish code. This edition was written for Xcode 6.3 and Swift 1.2. At WWDC 2015, Apple announced Xcode 7 and Swift 2, both of which introduce significant updates that (along with some changes to Cocoa for OS X 10.11) affect some of the exercises in this book. We have prepared a companion guide listing the changes needed to use Xcode 7 to work through the exercises in the book; it is available at https://github.com/bignerdranch/cocoa-programming-for-osx-5e/blob/master/Swift2.md.**

**Master Metal: The Next-Generation Graphics and GPU Programming Platform for Apple Developers Metal enables Apple developers to maximize performance in demanding tasks like 3D graphics, games, scientific programming, visualization, and GPU-accelerated machine learning. Metal(R) Programming Guide is the authoritative, practical guide to Metal for all iOS programmers who are interested in graphics programming but don't know where to start. Pioneering Apple developer Janie Clayton covers everything from basic draw calls to advanced parallel computing, combining easy-to-understand conceptual explanations with well-tested Swift 4/Xcode 9 sample code (available for download at GitHub). Clayton introduces the essential Metal, graphics, and math concepts every graphics programmer needs to know. She also discusses key graphics-specific libraries, concepts, and Metal Classes, presenting techniques and examples you'll find valuable for both graphics and data processing. Clayton also provides coverage of the Metal Compute Pipeline, demonstrating practical GPU programming applications ranging from image processing to neural networking. Quickly get a basic Metal project running Work with Metal resources and memory management Learn how shaders are compiled and accessed by the CPU Program both 2D and 3D graphics with Metal Import 3D models and assets from Blender, Maya, and other programs Apply imported textures to model objects Use multipass rendering to efficiently implement computationally expensive techniques Leverage tessellation to reduce mesh detail Use the GPU for a wide spectrum of general-purpose computing applications Get started with the Metal Performance Shaders Framework Register your product at informit.com/register for convenient access to downloads, updates, and/or corrections as they become available. Normal 0 false false false EN-US X-NONE X-NONE**

**iOS app programming for kids and other beginners**
**Front-End Web Development**
**Swift for Beginners**
**Big English 4 Pupils Book Stand Alone**
**Android Programming**
**Microsoft Excel 2019 Pivot Table Data Crunching**

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.

Kotlin is a statically typed programming language designed to interoperate with Java and fully supported by Google on the Android operating system. Based on Big Nerd Ranch's popular Kotlin Essentials course, this guide shows you how to work effectively with the Kotlin programming language through hands-on examples and clear explanations of key Kotlin concepts and foundational APIs. Written for Kotlin 1.2, this book will also introduce you to JetBrains' IntelliJ IDEA development environment. Whether you are an experienced Android developer looking for modern features beyond what Java offers or a new developer ready to learn your first programming language, the authors will guide you from first principles to advanced usage of Kotlin. By the end of this book, you will be empowered to create reliable, concise applications in Kotlin.

While there are several books on programming for Mac OS X, Advanced Mac OS X Programming: The Big Nerd Ranch Guide is the only one that contains explanations of how to leverage the powerful underlying technologies. This book gets down to the real nitty-gritty. The third edition is updated for Mac OS X 10.5 and 10.6 and covers new technologies like DTrace, Instruments, Grand Central Dispatch, blocks, and NSOperation.

Through this guide's carefully constructed explanations and examples, you will develop an understanding of Swift grammar and the elements of effective Swift style - all thoroughly revised for Swift 5.3 and Xcode 12. Based on Big Nerd Ranchs popular Swift training and its well-tested materials and methodology, this guide teaches concepts and coding through hands-on exercises. You will explore Swift features in Xcode playgrounds, and you will end by building sample apps for the command line and for macOS and iOS. After working through the book, you will have the skills to confidently dive into learning app development for Apple platforms like iOS and macOS.

Swift in Depth
Kotlin Programming
Comprehensive Tutorial and Reference Via Swift
iOS 15 Programming Fundamentals with Swift
How to take advantage of SwiftUI to create insanely great apps for iPhones, iPads, and Macs
Learning IOS Development

Publisher's note: This edition from 2020 is outdated and does not make use of the most recent iOS and swift features. A new sixth edition, updated for iOS 15 and including new advanced topics, such as Mac Catalyst, SwiftUI, Swift Concurrency, and SharePlay, has now been published Key FeaturesExplore the latest features of Xcode 12 and the Swift 5.3 programming language in this updated fifth editionKick-start your iOS programming career and have fun building your own iOS appsDiscover the new features of iOS 14 such as Mac Catalyst, SwiftUI, widgets and App ClipsBook Description If you're looking to work and experiment with powerful iOS 14 features such as widgets and App Clips to create your own apps, this iOS programming guide is for you. The book offers a comprehensive introduction for experienced programmers who are new to iOS, taking you through the entire process of learning the Swift language, writing your own apps, and publishing them on the App Store. Fully updated to cover the new iOS 14 features, along with Xcode 12 and Swift 5.3, this fifth edition of iOS 14 Programming for Beginners starts with an introduction to the Swift programming language and shows you 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 storyboards feature in the latest version of Xcode and implement the code for views, view controllers, data managers, and other aspects of mobile apps. The book will also help you apply iOS 14 features to existing apps and introduce you to SwiftUI, a new way to build apps for all Apple devices. Finally, you ' ll set up testers for your app and understand what you need to do to publish your app on the App Store. By the end of this book, you'll not only be well versed in writing and publishing applications, but you ' ll also be able to apply your iOS development skills to enhance existing apps. What you will learnGet to grips with the fundamentals of Xcode 12 and Swift 5.3, 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 an appImplement the latest iOS features, such as widgets and App ClipsConvert an existing iPad app into an Apple Silicon Mac appDesign, deploy, and test your iOS applications with design patterns and best practicesWho this book is for This book is for anyone who has programming experience but is new to Swift and iOS app development. Experienced programmers looking to explore the latest iOS 14 features will also find this book useful.

Written by members of the development team at Apple, Programming with Quartz is the first book to describe the sophisticated graphics system of Mac OS X. By using the methods described in this book, developers will be able to fully exploit the state-of-the-art graphics capabilities of Mac OS X in their applications, whether for Cocoa or Carbon development. This book also serves as an introduction to 2D graphics concepts, including how images are drawn and how color is rendered. It includes guidance for working with PDF documents, drawing bitmap graphics, using Quartz built-in color management, and drawing text. Programming with Quartz is a rich resource for new and experienced Mac OS X developers, Cocoa and Carbon programmers, UNIX developers who are migrating to Mac OS X, and anyone interested in powerful 2D graphics systems. This is the definitive guide to the revolutionary graphics system of Mac OS X that uses the Portable Document Format (PDF) as the basis of its imaging model It contains the latest on programming with Quartz for Mac OS X version 10.4 Carefully crafted and extensive code examples show how to accomplish most of the drawing tasks possible with Quartz

Whether you are a seasoned Objective-C developer or new to the Xcode platform, Swift Essentials will provide you with all you need to know to get started with the language. Prior experience with iOS

development is not necessary, but will be helpful to get the most out of the book.
Optimize Your Code for Better Apps
The Summer I Became a Nerd