

## Swift Programming The Big Nerd Ranch Guide

Summary Do you have a fantastic idea for an iPhone app but no idea how to bring it to life? Great news! With the right tools and a little practice, anyone can create an app. This book will get you started, even if you've never written a line of computer code. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book Anyone Can Create an App begins with the basics by introducing programming concepts, the Swift language, and the tools you'll need to write iOS apps. As you explore the interesting examples, illuminating illustrations, and crystal-clear step-by-step instructions, you'll learn to: Get started programming, no experience necessary! Add controls like text boxes and buttons Keep track of your favorite things by creating the Like It or Not (LioN) app By the end, you'll be able to create and run your own apps, and you'll have the confidence to learn more on your own. The book is updated for Swift 3. About the Reader This book is written especially for non programmers - no experience needed! About the Author Wendy Wise has an extensive background in mobile and application development and has worked with several Fortune 500 companies. In her 17-year technical career, Wendy has served as a senior director of software development, a senior product manager

for international mobile applications, and a hands-on developer for web and mobile technologies, among many other technical roles. Wendy fully embraces her nerd/geek side, as you'll find out as you read this book. In her spare time, she enjoys beer, coffee, photography, camping, and being outdoors.

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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 Bootcamp course 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.

Want to write iOS apps or desktop Mac applications? This introduction to programming and the Objective-C language is your first step on the journey from someone who uses apps to someone who writes them. Based on Big Nerd Ranch's popular Objective-C Bootcamp, Objective-C Programming: The Big Nerd Ranch Guide covers C, Objective-C, and the common programming idioms that enable developers to make the most of Apple technologies. Compatible with Xcode 5, iOS 7, and OS X Mavericks (10.9), this guide features short chapters and an engaging style to keep you motivated and moving forward. At the same

time, it encourages you to think critically as a programmer. Here are some of the topics covered: Using Xcode, Apple's documentation, and other tools  
Programming basics: variables, loops, functions, etc. Objects, classes, methods, and messages Pointers, addresses, and memory management with ARC  
Properties and Key-Value Coding (KVC) Class extensions Categories Classes from the Foundation framework Blocks Delegation, target-action, and notification design patterns Key-Value Observing (KVO) Runtime basics  
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.

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 For This 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.

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 Program with Swift 5.5! Swift is the easiest way to get started developing on Apple's platforms: iOS, iPadOS, macOS, watchOS and tvOS. In this book, you'll learn the basics of Swift from getting started with playgrounds to simple operations to building your own types. Everything you'll learn is platform-

neutral; you'll have a firm understanding of Swift by the end of this book, and you'll be ready to move on to whichever app platform you're interested in.

**Who This Book Is For:** This book is for complete beginners to Swift. No prior programming experience is necessary!

**Topics Covered in The Swift Apprentice**

**Playground basics:** Learn about the coding environment where you can quickly and easily try out your code as you learn.

**Basic types:** Numbers and strings are the basic kinds of data in any app - learn how to use them in Swift.

**Flow control:** Your code doesn't always run straight through - learn how to use conditions and decide what to do.

**Functions:** Group your code together into reusable chunks to run and pass around.

**Collection types:** Discover the many ways Swift offers to store and organize data into collections.

**Protocols & protocol-oriented programming:** Define protocols to make your code more interface-based and compositional.

**Advanced topics:** Learn how to create custom operators, organize your code, write tests, manage memory, serialize your types, concurrency and so much more.

After reading this book and completing your Swift apprenticeship by working through the included exercises and challenges, you'll be ready to take on app development on the platform of your choice!

Offers twenty-four lessons teaching how to build next-generation OS X and iOS apps using Apple's new programming language, with step-by-step instructions for such common tasks as



using operators, iterating code with loops, and introducing generics.

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.

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.

*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

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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>.

Includes Xcode 6 text commands and visual reference guide on perforated page.

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.

Presents an introduction to Objective-C, covering such topics as classes and objects, data

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types, program looping, inheritance, polymorphism, variables, memory management, and archiving.

Swift greatly simplifies the process of developing applications for Apple devices. This book provides you with the essential skills to help you get started with developing applications using Swift. Key Features Teaches you how to correctly structure and architect software using Swift Uses real-world examples to connect the theory to a professional setting Imparts expertise in the core Swift standard library Book Description Take your first foray into programming for Apple devices with Swift. Swift is fundamentally different from Objective-C, as it is a protocol-oriented language. While you can still write normal object-oriented code in Swift, it requires a new way of thinking to take advantage of its powerful features and a solid understanding of the basics to become productive. What you will learn Explore the fundamental Swift programming concepts, language structure, and the Swift programming syntax Learn how Swift compares to other computer languages and how to transform your thinking to leverage new concepts such as optionals and protocols Master how to use key language elements, such as strings and collections Grasp how Swift supports modern application development using advanced features, such as built-in Unicode support and higher-order functions Who this book is for If you are seeking fundamental Swift programming skills, in preparation for learning to develop native applications for iOS or macOS, this book is the best for you. You don't need to have any prior Swift knowledge; however, object-oriented programming experience is desired. Serving the Nation on the borders is not a cup of tea it's always been a work that requires great courageous heart, Quick Decision Making abilities and furious instincts. In order to get selected in National Defence Academy and Naval Academy, countless

candidates from all across the country keep vigorous eye on its entrance exam notifications, released twice in a year by Union Public Service Commission. The 2020-21 edition of 'Pathfinder NDA/NA Entrance Examination' is complete self study guide that is designed for the absolute preparation of Combined Defence Services Examination. The book has been revised carefully and consciously providing the entire syllabus, divided into 4 major sections that are sub divided into chapters, which is prescribed by the UPSC guidelines. Solved Papers from [2019 to 2017], more than 800 MCQs and Chapterwise Division of the previous years' questions are provided in the book, giving deep insight to the candidates about the papers pattern, types of questions and their weightage in the exam. Packed with such comprehensive study resources, this is a perfect book to receive the best guidance for the upcoming NDA/NA Entrance Exam to strive towards success. TABLE OF CONTENT NDA/NA Solved Paper 2019 II, NDA/NA Solved Paper 2019 I, NDA/NA Solved Paper 2018 II, NDA/NA Solved Paper 2018 I, NDA/NA Solved Paper 2017 II, Mathematics, General English, General Science, General Studies.

Swift ProgrammingThe Big Nerd Ranch GuidePearson Technology Group  
Swift is the definitive language for Apple development today and it's a vital part of any iOS and macOS developer's skill set. The Mastering Swift book over the years has established itself as one of the popular choices for an in-depth and practical guide on Swift programming language amongst developers. The latest fifth edition is fully ...

Advanced Swift takes you through Swift's features, from low-level programming to high-level abstractions. In this book, we'll write about advanced concepts in Swift programming. If you have read the Swift Programming Guide, and want to explore more, this book is for you. Swift is a great language for systems programming, but also lends itself for very high-level programming. We'll explore both high-level topics (for example, programming with generics and protocols), as well as low-level topics (for example, wrapping a C library and string internals).

Swift 5.3 is a powerful and accessible programming language that offers a variety of features to build robust mobile, desktop, and server-side applications and machine learning models. This book will help you gain a solid understanding of Swift programming using focused recipes for building Swift apps efficiently.

Get quick answers for developing and debugging applications with Swift, Apple's multi-paradigm programming language. This pocket reference is the perfect on-the-job tool for learning Swift's modern language features, including type safety, generics, type inference, closures, tuples, automatic memory management, and support for Unicode. Designed to work with Cocoa and Cocoa Touch, Swift can be used in tandem with Objective-C, and either of these languages can call APIs implemented in the other. Swift is still evolving, but it's clear that Apple sees it as the future language of choice for iOS and OS X software development. Topics include: Swift's Run-Eval-Print-Loop (REPL) and interactive playgrounds Supported data types, such as strings, arrays, and

dictionaries Variables and constants Program flow: loops and conditional execution Classes, structures, enumerations, functions, and protocols Closures: similar to blocks in Objective-C and lambdas in C# Optionals: values that can explicitly have no value Operators, operator overloading, and custom operators Access control: restricting access to types, methods, and properties Built-in global functions and their parameter requirements

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.

Get started fast with Swift 2 programming for iOS and OS X Learning Swift 2 Programming is a fast-paced, hands-on introduction to writing production-quality iOS and OS X apps with Apple's programming language. Written for developers with

experience in any modern language, this book explains Swift simply and clearly, using relevant examples that solve realistic problems. Author Jacob Schatz's popular YouTube video tutorials have already helped thousands of Apple developers get started with Swift. Now, he helps you take full advantage of Swift's advanced design, remarkable performance, and streamlined development techniques. Step by step, you'll move from basic syntax through advanced features such as closures and generics—discovering helpful tips and tricks along the way. After you've mastered Swift's building blocks and learned about its key innovations, a full section of case studies walks you through building complete apps from scratch. Learn how to: Compare Swift with Objective-C, JavaScript, Python, Ruby, and C Collect data with arrays and dictionaries, and store it with variables and constants Group commonly used code into functions for easy reuse Structure your code with enums, structs, and classes Use generics to get more done with less code Write closures to share small blocks of functionality Use optionals to write more robust, crash-resistant, and cleaner code Integrate existing Objective-C code into new Swift apps Program on the bit and byte levels with advanced operators Implement efficient design patterns with protocols and delegates Create animated 2D games with SpriteKit, and apps with UIKit

Have you ever wanted to learn how to build IOS apps but don't know where to start? Have you tried some of the IOS books and blogs but still you could not get to the end? Do you feel like you need some fundamentals skills in Swift for you to

get started? Well, Swift is the new language for you. No need to struggle any more. Swift will help you create both iOS8 and OSX apps in an intriguing and interesting way. If you happen to have some experience working with Objective-C, you might be asking yourself why shift to Swift. After all, you have been creating better apps for OS X for some years. But, did you know that apple had something in store before they released Swift? Whether you are an experienced programmer or just starting out in iOS app design, this book takes you through all the steps of designing an iOS app. If you want to learn how to create outstanding apps that will beat your competitor, this book helps you discover the secret. From Xcode and Swift, the foundation of modern iOS development, you will learn the building blocks of designing a great app so that you can dig deep into the app development. The Swift programming language is innovative, safe and young. So, how do you stay updated with the latest information and avoid being left behind with the most recent developments? Inside you will find from Beginners, Intermediate and Advanced Principles of Swift Programming: Step by step instructions on building apps Sample XCode projects Basic Introduction to Swift Discover major design principles that define iOS user experience. Manage data and manipulate images using effects and filters Latest changes to Swift 5.0 The ABI stability And many more... Don't wait. Grab your copy today.



Mastering Swift 5.3, Sixth Edition will enable you to grasp the Swift basic concepts as well as explore the key features of Swift 5.3 with easy explanations and complete sets of examples

The Django framework makes it easier than ever for Python programmers to create dynamic, database-driven websites. This text covers everything developers need to know to plan, write, deploy, secure, and administer world-class Django web sites.

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.

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 hands-on guide, you'll quickly be writing Swift code, using Playgrounds to instantly see the results of your work. Author Boisy G. Pitre gives you a solid grounding in key Swift language concepts-including variables, constants, types, arrays, and

dictionaries-before he shows you how to use Swift's innovative Xcode integrated development environment to create apps for iOS and OS X. **THIS BOOK INCLUDES:** Detailed instruction, ample illustrations, and clear examples Real-world guidance and advice Best practices from an experienced Mac and iOS developer Emphasis on how to use Xcode, Playgrounds, and the REPL **COMPANION WEBSITE:** [www.peachpit.com/swiftbeginners](http://www.peachpit.com/swiftbeginners) includes additional resources.

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.

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

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.

What will you learn from this book? Apple's new modern programming language, Swift, is slowly becoming the "go to" language for iOS and OS X development. The language will attract existing developers because of its modern features and prototyping tools, and it will attract new developers because of its less-steep learning curve. That said, Swift is deep, and contains

many advanced concepts, constructs, and patterns. Developers need a way to learn these new features and understand them in context. Head First is an effective vehicle for this level of teaching, and Head First Swift is no exception. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Swift uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

"In her book *Designing the iPhone User Experience*, Suzanne Ginsburg takes a fresh look at cutting-edge, user-centered design from the perspective of designing mobile user experiences for the iPhone. Her book brings together everything you need to know to design great products for mobile contexts." —Pabini Gabriel-Petit, UX Strategy & Design Consultant and Publisher and Editor in Chief of UXmatters "It's about time! Suzanne Ginsburg takes the best of User-Centered Design (UCD) principles and tweaks them with a dash of mobile and a lot of hints about what it means to implement the Apple Human Interface Guidelines for iPhone. Your idea for an iPhone app has much better chances of being accepted by iPhone owners (and by the iTunes watchdogs guarding entry to the App Store) if you follow even half of the suggestions in this book." —Nancy Frishberg, Ph.D., User Experience Strategist and past Chair of BayCHI Given the fiercely competitive state of the iPhone app landscape, it has become increasingly challenging for app designers and developers to differentiate their apps. The days are long gone when it was possible to crank out an app over the weekend and refine it after receiving a few not so flattering user reviews. Users now have choices -- lots of them. If your app is difficult to use or doesn't meet their needs, finding another one is just a tap away. To illustrate,

consider the ever-growing field of Twitter clients. There are hundreds of variations in the App Store but only a handful stand out from the pack (such as Tweetie or Twitterific). For most apps, it boils down to one thing: the user experience. The same is true for countless other categories within the App Store; well-designed apps are more likely to attract and retain users. Of course there are other critical aspects of iPhone app development: the coding, the marketing, the customer support. All of the elements must come together. Designing the iPhone User Experience will help you tackle the user experience part of the iPhone challenge. Three key themes will be reinforced throughout the book: Know thy user, the Design Lifecycle, and Attention to Detail: Know Thy User Millions of people depend on iPhone apps to get them to work, find their next meal, and stay in touch with family and friends. Professionals of all kinds also rely on iPhone apps: doctors look up drug interactions; photographers fine-tune lighting; cyclists find the best routes. To truly understand how your apps can fit into their lives, designers and developers must learn how users do things today, what's important to them, and what needs have not been met. Part II, Introduction to User Research, will introduce a variety of user research methods. The Design Lifecycle Award-winning designs rarely happen overnight; they usually only occur after many rigorous design cycles. To illustrate this point, consider USA TODAY's iPhone application, which went through at least seven iterations for the article view in their app. These kinds of iterations should happen before you launch your app, since it will save valuable time and money, not to mention the headaches a bad design could create for your user. More importantly, you may only have one chance to impress your users -- you do not want to sell them half-baked ideas. Part III, Developing your App Concept, will explain how to iteratively design and test your app concepts. Attention to Detail Most

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professionals know that attention to detail is important, but hundreds of apps fail to incorporate even the most basic design principles. This lack of attention is not merely an aesthetic issue (which is important) it also affects the way apps function. For example, a news article without proper alignment will be difficult to read, and a poorly rendered icon will be challenging to interpret. Apps with a razor sharp attention to detail will stand out because their apps will look good and perform well. Part IV, Refining your App Concept, will show you how to make to your app shine, from visual design and branding to accessibility and localization. Mastering these three areas will help set your app apart from the crowd. You may not have an award-winning app over night. But knowing your users, iterative design, and attention to detail are important first steps.

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

Learn iOS app development and work with the latest Apple development tools Key features Explore the latest features of Xcode 12 and the Swift 5.3 programming language in this updated fifth edition Kick-start your iOS programming career and have fun building your own



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iOS apps Discover the new features of iOS 14 such as Mac Catalyst, SwiftUI, widgets and App Clips Book Description If you're a beginner 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 learn Get to grips with the fundamentals of Xcode 12 and Swift 5.3, 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 widgets and App Clips Convert an existing iPad app into an Apple Silicon Mac app 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. Experienced programmers looking to explore the latest iOS 14 features will also find this book useful. 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>.

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 Ranch's 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

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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.

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