

Object Oriented Programming In Swift Ray Wenderlich

The professional development team that brought you two editions of Objective-C for the Absolute Beginners and have taught thousands of developers around the world to write some of the most popular iPhone apps in their categories on the app store, have now leveraged their instruction for Swift. Swift for Absolute Beginners is perfect for those with no programming background, those with some programming experience but no object-oriented experience, or those that have a great idea for an app but haven't programmed since school. Gary Bennett and Brad Lees are full-time professional iOS developers and have developed a broad spectrum of apps for Fortune 500 companies. The authors have taken their combined 12 years of writing apps, teaching online iOS courses, the experience from their first two iOS books, along with their free online instruction and free online forum to create an excellent training book. Topics include: How to be successful at learning Swift Using Swift Playgrounds to learn iOS development quickly What is Object Oriented Programming What are Swift classes, properties, and functions Proper user interface and user experience design Swift data types: integers, floats, strings, booleans How to use Swift data collections: arrays and dictionaries Boolean logic, comparing data, and flow control Writing iPhone apps from scratch Avoiding Swift pitfalls Many students have a difficult time believing they can learn to write iOS apps or just staying motivated through learning the process. This book, along with the free, live online training sessions, helps students stay motivated and overcome obstacles while they learn to be great iOS developers.

Deep Dive Into Swift! Swift is a rich language with a plethora of features to offer. Reading the official documentation or entry-level books is important, but it's not enough to grasp the true power of the language. Expert Swift is here to help, by showing you how to harness the full power of Swift. You'll learn about advanced usages of protocols, generics, functional reactive programming, API design and more. Who This Book is For This book is for intermediate Swift developers who already know the basics of Swift and are looking to deepen their knowledge and understanding of the language. Topics Covered in Expert Swift Protocols and Generics: Learn how protocols and generics work, and how you can leverage them in your code to produce clean, long-lasting and easy-to-refactor APIs. Sequences and Collections: Learn how to use Sequences and Collections to write generic algorithms that operate across type families. Unsafe: Understand the memory layout of types and how to use typed and untyped pointers. Functional Reactive Programming: Explore the most important and refined concepts of functional reactive programming and how you can apply these concepts to your apps. Objective-C Interoperability: Learn how to expose Objective-C code to Swift and vice versa. Library and API Design: Enhancing your skill set and intuition for designing great APIs. One thing you can count on: after reading this book, you'll be prepared to use the advanced features of Swift and improve your existing code with the knowledge you'll acquire.

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.

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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

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.

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 ...

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

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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.

Entirely rewritten for Apple's Swift programming language, this updated cookbook helps you overcome the vexing issues you're likely to face when creating apps for iOS devices. You'll find hundreds of new and revised recipes for using the iOS 8 SDK, including techniques for working with Health data and HomeKit accessories, enhancing and animating graphics, storing and protecting data, sending and receiving notifications, and managing files and folders among them. Each recipe includes sample code on GitHub that you can use right away. Use CloudKit APIs to store information in the cloud with ease Create custom keyboards and extensions Access users' health-related information with HealthKit Interact with accessories inside the user's home with HomeKit Create vibrant and lifelike user interfaces with UIKit Dynamics Use the Keychain to protect your app's data Develop location-aware and multitasking-aware apps Work with iOS 8's audio and video APIs Use Event Kit UI to manage calendars, dates, and events Take advantage of the accelerometer and the gyroscope Get working examples for implementing gesture recognizers Retrieve and manipulate contacts and groups from the Address Book Determine a camera's availability and access the Photo Library

There's a new language in town. Swift is Apple's new, native, fast, and easy to learn programming language for iOS and OS X app development. It's their "Objective-C without the C". If you are an iOS developer or planning to become one, learning Swift is your #1 priority, and *Learn Swift on the Mac* tells you everything you need to get up to speed, well, swiftly. You'll start with the Swift Playground and an introduction to object-oriented programming so you can immediately see Swift in action. You then learn about all of the key language features like functions and closures, classes, methods, extensions, and how Swift works just as well as Objective-C when it comes to easy memory management with ARC. Finally you'll learn how to use Swift alongside Objective-C as well as with Core Data, and you'll learn how to put all of the pieces together with a health app using Apple's new HealthKit framework.

Swift Language is now more powerful than ever; it has introduced new ways to solve old problems and has gone on to become one of the fastest growing popular languages. It is now a de-facto choice for iOS developers and it powers most of the newly released and popular apps. This practical guide will help you to begin your journey with Swift ...

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.

Implement object-oriented programming paradigms with Swift 3.0 and mix them with modern functional programming techniques to build powerful real-world applications About This Book Leverage the most efficient object-oriented design patterns in your Swift applications Write robust, safer, and better code using the blueprints that generate objects Build a platform with object-oriented code using real-world elements and represent them in your apps Who This Book Is For This book is for iOS and macOS developers who want to get a detailed practical understanding of object-oriented programming with the latest version of Swift: 3.0. What You Will Learn Write high-quality and easy-to-maintain reusable object-oriented code to build applications for iOS, macOS, and Linux Work with encapsulation, abstraction, and polymorphism using Swift 3.0 Work with classes, instances, properties, and methods in Swift 3.0 Take advantage of inheritance, specialization, and the possibility to overload or override members Implement encapsulation, abstraction, and polymorphism Explore functional programming techniques mixed with object-oriented code in Swift 3.0 Understand the differences between Swift 3.0, previous Swift versions, and Objective-C code In Detail Swift has quickly become one of the most-liked languages and developers' de-facto choice when building applications that target iOS and macOS. In the new version, the Swift team wants to take its adoption to the next level by making it available for new platforms and audiences. This book introduces the object-oriented paradigm and its implementation in the Swift 3 programming language to help you understand how real-world objects can become part of fundamental reusable elements in the code. This book is developed with XCode 8.x and covers all the enhancements included in Swift 3.0. In addition, we teach you to run most of the examples with the Swift REPL available on macOS and Linux, and with a Web-based Swift sandbox developed by IBM capable of running on any web browser, including Windows and mobile devices. You will organize data in blueprints that generate instances. You'll work with examples so you understand how to encapsulate and hide data by working with properties and access control. Then, you'll get to grips with complex scenarios where you use instances that belong to more than one blueprint. You'll discover the power of contract programming and parametric polymorphism. You'll combine generic code with inheritance and multiple inheritance. Later, you'll see how to combine functional programming with object-oriented programming and find out how to refactor your existing code for easy maintenance. Style and approach This simple guide is packed with practical examples of solutions to common problems. Each chapter includes exercises and the possibility for you to test your progress by answering a quiz

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Understanding the Protocol-Oriented Programming (POP) paradigm is imperative if you plan on designing and implementing software using Swift 5. In this book, you'll learn how to work with POP to approach app development more efficiently. First, we review what POP is and how it differs from the classical object-oriented programming approach. Next, we discuss the pillars of this new paradigm: protocol extensions, protocol inheritance, and protocol composition. In the last part of this book, we're going to implement a fully functional app using the protocol-oriented approach. Topics include: What's protocol-oriented programming? The pillars of POP Defining method requirements Class-bound protocols Adopting a protocol Generics and protocols Implementing an app from scratch using POP Throughout the book, you'll acquire coding skills that can be applied in real-world situations. About the Author Karoly Nyzsitor is a veteran software engineer and instructor. He has worked with large companies such as Apple, Siemens, and SAP. Karoly has designed and built several enterprise frameworks, and he holds twelve patents related to inventions in the field of mobile computing. After 18 years, he left the corporate world to start his own business. Since 2016, he's fully committed to teaching. As an instructor, he aims to share his 20+ years of software development expertise. Karoly teaches Software Architecture, Object-Oriented Programming and Design, Python, Swift and iOS Programming, and other, programming-related topics. You can find his courses and books on all major platforms including Amazon, LinkedIn Learning, Pluralsight, Udemy, and iTunes.

Stay motivated and overcome obstacles while learning to use Swift Playgrounds to be a great iOS developer. This book is perfect for those with no programming background, those with some programming experience but no object-oriented experience, or those that have a great idea for an app but haven't programmed since school, and it is now updated for Swift 3. Many people have a difficult time believing they can learn to write iOS apps. Swift 3 for Absolute Beginners, along with the free, live online training sessions will show you how to do so. You'll learn Object Oriented Programming and be introduced to HealthKit before moving on to write your own iPhone and Watch apps from scratch. Gary Bennett and Brad Lees are full-time professional iOS developers and have developed a broad spectrum of apps for Fortune 500 companies. The authors have taken their combined 12 years of writing apps, teaching online iOS courses, the experience from their first three iOS books, along with their online instruction and free online forum at XcelMe.com to create an excellent training book. What You'll Learn: · Work with Swift classes, properties, and functions · Examine proper user interface and user experience design · Understand Swift data types: integers, floats, strings, and booleans · Use Swift data collections: arrays and dictionaries · Review Boolean logic, comparing data, and flow control Who This Book Is For Anyone who wants to learn to develop apps for the Mac, iPhone, and iPad, and Watch using the Swift programming language. No previous programming experience is necessary.

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Build sophisticated web applications by mastering the art of Object-Oriented Javascript About This Book Learn popular Object-Oriented programming (OOP) principles and design patterns to build robust apps Implement Object-Oriented concepts in a wide range of frontend architectures Capture objects from real-world elements and create object-oriented code that represents them Learn the latest ES6 features and how to test and debug issues with JavaScript code using various modern mechanisms Who This Book Is For JavaScript developers looking to enhance their web developments skills by learning object-oriented programming. What You Will Learn Get acquainted with the basics of JavaScript language constructs along with object-oriented programming and its application. Learn to build scalable server application in JavaScript using Node.js Generate instances in three programming languages: Python, JavaScript, and C# Work with a combination of access modifiers, prefixes, properties, fields, attributes, and local variables to encapsulate and hide data Master DOM manipulation, cross-browser strategies, and ES6 Identify and apply the most common design patterns such as Singleton, Factory, Observer, Model-View-Controller, and Mediator Patterns Design applications using a modular architecture based on SOLID principles In Detail JavaScript is the behavior, the third pillar in today's paradigm that looks at web pages as something that consists of : content (HTML), presentation (CSS), and behavior (JavaScript). Using JavaScript, you can create interactive web pages along with desktop widgets, browser, and application extensions, and other pieces of software. Object-oriented programming, which is popularly known as OOP, is basically based on the concept of objects rather than actions. The first module will help you master JavaScript and build futuristic web applications. You will start by getting acquainted with the language constructs and how to organize code easily. You develop concrete understanding of variable scoping, loops, and best practices on using types and data structures, as well as the coding style and recommended code organization patterns in JavaScript. The book will also teach you how to use arrays and objects as data structures. By the end of the book, you will understand how reactive JavaScript is going to be the new paradigm. The second module is an easy-to-follow course, which includes hands-on examples of solutions to common problems with object-oriented code. It will help to identify objects from real-life scenarios, to protect and hide data with the data encapsulation features of Python, JavaScript, and C#. You will discover the advantage of duck typing in both Python and JavaScript, while you work with interfaces and generics in C#. With a fair understanding of interfaces, multiple inheritance, and composition, you will move on to refactor existing code and to organize your source for easy maintenance and extension. The third module takes you through all the in-depth and exciting futures hidden behind the facade. You should read through this course if you want to be able to take your JavaScript skills to a new level of sophistication. Style and approach This course is a comprehensive guide where each chapter consists of best practices, constructive advice, and few easy-to-follow examples that will build up your skills as you advance through the book. Get

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object oriented with this course, which takes you on a journey to get acquainted with few useful hands-on tools, features, and ways to enhance your productivity using OOP techniques. It will also act as a reference guide with useful examples on resolving problems with object-oriented code in Python, JavaScript, and C#.

Build fast and powerful applications by exploiting the power of protocol-oriented programming in Swift

About This Book

- The only book that shows how to harness the power of Protocol-Oriented Programming in Swift to build real-world applications,
- Get familiar with the protocol focused approach of application development,
- Increase the overall productivity and performance of applications with Protocol Oriented Programming.

Who This Book Is For This book is for Swift developers who want to learn and implement protocol oriented programming in their real world applications.

What You Will Learn

- The difference between Object-Oriented programming and Protocol-Oriented programming
- The difference between reference and value types and when to use each
- How we can leverage tuples to reduce the complexity of our code
- What are protocols and how to use them
- How to implement protocol extensions to create a very flexible code base
- How to implement several design patterns in a Protocol-Oriented approach
- How to solve real world design issue with protocol oriented programming

In Detail At the heart of Swift's design is an incredibly powerful idea: protocol-oriented programming. Its many benefits include better code maintainability, increased developer productivity and superior application performance. The book will teach the reader how to apply the ideas behind the protocol oriented programming paradigm to improve the code they write. This book will introduce the readers to the world of protocol-oriented programming in Swift and will demonstrate the ideas behind this new programming paradigm with real world examples. In addition to learning the concepts of Protocol Oriented programming, it also shows the reader how to reduce the complexity of their codebase using protocol extensions. Beginning with how to create simple protocols, readers will learn how to extend protocols and also to assign behaviors to them. By the end of this book readers will be able to harness the power of protocol-oriented programming to build real world applications.

Style and approach In its latest release of Swift, Apple has introduced Protocol Extensions as a new feature at the heart of Swifts design making Swift 2 a protocol-oriented language. Protocol oriented programming being a less explored OOP paradigm, there is little guidance on how to take advantage of protocol extensions in real-world applications. In addition to offering an in-depth coverage of protocol oriented programming and its concepts, this book also explains how a developer can leverage these features to build powerful, real-world applications

THE #1 BESTSELLING BOOK ON OBJECTIVE-C 2.0 Programming in Objective-C 2.0 provides the new programmer a complete, step-by-step introduction to Objective-C, the primary language used to develop applications for the iPhone, iPad, and Mac OS X platforms. The book does not assume previous experience with either C or object-oriented

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programming languages, and it includes many detailed, practical examples of how to put Objective-C to use in your everyday iPhone/iPad or Mac OS X programming tasks. A powerful yet simple object-oriented programming language that's based on the C programming language, Objective-C is widely available not only on OS X and the iPhone/iPad platform but across many operating systems that support the gcc compiler, including Linux, Unix, and Windows systems. The second edition of this book thoroughly covers the latest version of the language, Objective-C 2.0. And it shows not only how to take advantage of the Foundation framework's rich built-in library of classes but also how to use the iPhone SDK to develop programs designed for the iPhone/iPad platform.

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You are one step away from programming ios 14 apps using Swift 5.3 and Xcode if you take the decision to purchase this book. Have you ever wondered how iOS apps are built and designed? If your answer is yes, then you are in for a long and exciting journey with this guide. Apps in the Apple Playstore are built with Swift, which is a general-purpose, multi-paradigm, compiled programming language. Swift is used with Xcode which is an Apple's integrated development environment (IDE) used for building software for devices using iOS. Swift is similar to Python as it is also an object-oriented programming language. Apps built on this platform can be uploaded on the Apple Playstore by the developer.

Programming iOS 14 using Swift and Xcode: A step by step beginners to pro guide to programming iOS 14 using Swift 5.2 and Xcode 12.2 provides both new and existing app developers a theoretical and practical approach to learning Apple's Swift programming language. Several theories explained in this guide has a tutorial chapter attached to it for practical learning. Topics covered in this guide include and are not limited to: Swift Playgrounds Swift Data types Swift Operators and Expressions SwiftUI and UIKit Error Handling SwiftUI Stacks and Frames Uploading the App to the Apple Playstore These represent a few of the chapters covered in this simple and straightforward guide. Start your journey of becoming an iOS app developer today. Scroll up and click the BUY NOW WITH 1-CLICK BUTTON

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

Move into iOS development by getting a firm grasp of its fundamentals, including the Xcode 9 IDE, Cocoa Touch, and the latest version of Apple's acclaimed programming language, Swift 4. With this thoroughly updated guide, you'll learn the Swift language, understand Apple's Xcode development tools, and discover the Cocoa framework. Explore Swift's object-oriented concepts Become familiar with built-in Swift types Dive deep into Swift objects, protocols, and generics Tour the lifecycle of an Xcode project Learn how nibs are loaded Understand Cocoa's event-driven design Communicate with C and Objective-C Once you master the fundamentals, you'll be ready to tackle the details of iOS app development with author Matt Neuburg's companion guide, Programming iOS 12.

Get to grips with object-oriented programming in Swift to efficiently build powerful real-world applications About This Book Leverage the most efficient object-oriented design patterns in your Swift applications Write robust, safer, and better code using the blueprints that generate objects Build a platform with object-oriented code by using real-world elements and represent them in your app Who This Book Is For If you are an iOS developer who has a basic idea of object-oriented programming and want to incorporate its concepts with Swift to optimize your application's code and create reusable and easily to understand building blocks, then this book is for you. This is a very useful resource for developers who want to shift from Objective C, C#, Java, Python, JavaScript, or other object-oriented languages to Swift What You Will Learn Build solid, stable, and reliable applications using Swift Work with encapsulation, abstraction, and polymorphism using Swift 2.0 Customize constructors and destructors based on your needs Develop Swift 2.0 with classes, instances, properties, and methods Take advantage of generic code to maximize code reuse and generalize behaviors Use state of inheritance, specialization, and the possibility to overload members Write high quality object-oriented code to build apps for iOS or Mac OS X In Detail Object-Oriented Programming (OOP) is a programming paradigm based on the concept of

objects; these are data structures that contain data in the form of fields, often known as attributes and code. Objects are everywhere, and so it is very important to recognize elements, known as objects, from real-world situations and know how they can easily be translated into object-oriented code. Object-Oriented Programming with Swift is an easy-to-follow guide packed full of hands-on examples of solutions to common problems encountered with object-oriented code in Swift. It starts by helping you to recognize objects using real-life scenarios and demonstrates how working with them makes it simpler to write code that is easy to understand and reuse. You will learn to protect and hide data with the data encapsulation features of Swift. Then, you will explore how to maximize code reuse by writing code capable of working with objects of different types. After that, you'll discover the power of parametric polymorphism and will combine generic code with inheritance and multiple inheritance. Later, you move on to refactoring your existing code and organizing your source for easy maintenance and extensions. By the end of the book, you will be able to create better, stronger, and more reusable code, which will help you build better applications. Style and approach This simple guide is packed with practical examples of solutions to common problems. Each chapter includes exercises and the possibility for you to test your progress by answering questions.

Build fast and powerful applications by harnessing the power of protocol-oriented programming in Swift 4 About This Book Leverage the power of protocol-oriented programming in your applications and learn from real-world use cases Create a flexible code base with protocols and protocol extensions Leverage the power of generics in Swift 4 to create very flexible frameworks Who This Book Is For This book is for Swift developers who want to learn and implement protocol-oriented programming in their real-world applications.. What You Will Learn Understand the differences between object-oriented programming and protocol-oriented programming Explore the different types that Swift offers and what pitfalls to avoid Delve into generics and generic programming Learn how to implement Copy-On-Write within your custom types Implement several design patterns in a protocol-oriented way Design applications by prioritizing the protocol first and the implementation types second In Detail Swift has become the number one language used in iOS and macOS development. The Swift standard library is developed using protocol-oriented programming techniques, generics, and first-class value semantics; therefore, every Swift developer should understand these powerful concepts and how to take advantage of them in their application design. This book will help you understand the differences between object-oriented programming and protocol-oriented programming. It will demonstrate how to work with protocol-oriented programming using real-world use cases. You will gain a solid knowledge of the various types that can be used in Swift and the differences between value and reference types. You will be taught how protocol-oriented programming techniques can be used to develop very flexible and easy-to-maintain code. By the end of the book, you will have a thorough understanding

of protocol-oriented programming and how to utilize it to build powerful and practical applications. Style and approach
This book is written for developers who learn best by working with code, so every concept discussed in this book is reinforced with real code examples.

Get up and running with Swift—swiftly Brimming with expert advice and easy-to-follow instructions, Swift For Dummies shows new and existing programmers how to quickly port existing Objective-C applications into Swift and get into the swing of the new language like a pro. Designed from the ground up to be a simpler programming language, it's never been easier to get started creating apps for the iPhone or iPad, or applications for Mac OS X. Inside the book, you'll find out how to set up Xcode for a new Swift application, use operators, objects, and data types, and control program flow with conditional statements. You'll also get the scoop on creating new functions, statements, and declarations, learn useful patterns in an object-oriented environment, and take advantage of frameworks to speed your coding along. Plus, you'll find out how Swift does away with pointer variables and how to reference and dereference variables instead. Set up a playground development environment for Mac, iPhone, iPad, and wearable computers Move an existing Objective-C program to Swift Take advantage of framework components and subcomponents Create an app that uses location, mapping, and social media Whether you're an existing Objective-C programmer looking to port your code to Swift or you've never programmed for Apple in the past, this fun and friendly guide gets you up to speed swiftly.

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

Create scalable, reusable high-quality JavaScript applications and libraries

Discover the untapped features of object-oriented programming and use it with other software tools to code fast, efficient applications. Key Features Explore the complexities of object-oriented programming (OOP) Discover what OOP can do for you Learn to use the key tools and software engineering practices to support your own programming needs Book Description Your experience and knowledge always influence the approach you take and the tools you use to write your programs. With a sound understanding of how to approach your goal and what software paradigms to use, you can create high-performing applications quickly and efficiently. In this two-part book, you'll discover the untapped features of object-oriented programming and use it with other software tools to code fast and efficient applications. The first part of the book begins with a discussion on how OOP is used today and moves on to analyze the ideas and problems that OOP doesn't address. It continues by deconstructing the complexity of OOP, showing you its fundamentally simple core. You'll see that, by using the distinctive

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elements of OOP, you can learn to build your applications more easily. The next part of this book talks about acquiring the skills to become a better programmer. You'll get an overview of how various tools, such as version control and build management, help make your life easier. This book also discusses the pros and cons of other programming paradigms, such as aspect-oriented programming and functional programming, and helps to select the correct approach for your projects. It ends by talking about the philosophy behind designing software and what it means to be a "good" developer. By the end of this two-part book, you will have learned that OOP is not always complex, and you will know how you can evolve into a better programmer by learning about ethics, teamwork, and documentation. What you will learn Untangle the complexity of object-oriented programming by breaking it down to its essential building blocks Realize the full potential of OOP to design efficient, maintainable programs Utilize coding best practices, including TDD, pair programming and code reviews, to improve your work Use tools, such as source control and IDEs, to work more efficiently Learn how to most productively work with other developers Build your own software development philosophy Who this book is for This book is ideal for programmers who want to understand the philosophy behind creating software and what it means to be "good" at designing software. Programmers who want to deconstruct the OOP paradigm and see how it can be reconstructed in a clear, straightforward way will also find this book useful. To understand the ideas expressed in this book, you must be an experienced programmer who wants to evolve their practice.

- This book has covered the latest Swift 5.3.
- Use this book as a quick reference guide (like a cheat sheet) for Swift programming language. Access any topic inside a chapter in just one tap.
- For beginners and for dummies, this book is a step-by-step guide to understanding object-oriented programming with Swift.
- If you are an experienced developer who knows at least one modern programming language well, then this book is designed to teach you how to think and program in Swift Programming language.
- Each topic is covered with clear and concise examples for Swift programming language using Playground. I hope you find this book to be a useful and worthy addition to your library. I've had a great time writing it. Hopefully you'll have a great time reading and learning the latest version of Swift 5.3. I will keep updating this book to make it much simpler and more productive. Thank you for purchasing a copy! -Amit Chaudhary, 10th January 2021
- Chapters Covered in this book: 1. Basics 2. Constants 3. Variables 4. Data Types 5. Operators 6. String and Characters 7. Control Flow 8. Collection Types (Arrays, Sets, and Dictionaries) 9. Functions 10. Closures 11. Enumerators 12. Structures 13. Classes 14. Properties 15. Subscripts 16. Methods 17. Inheritance 18. Initializers 19. De-Initializers/ Deallocation 20. Protocols 21. Extensions/ Categories 22. Automatic Reference Count 23. Type Casting/ Type Checking 24. Generics 25. Optional Chaining 26. Nested Types 27. Error Handling

Learn iPhone and iPad Programming via Tutorials! If you're new to iOS or 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 four engaging, epic-length tutorials. These hands-on tutorials describe in full detail how to build a new app from scratch. Five tutorials, five 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.

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

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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!

Description Learn How to Program with Swift! 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 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!

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 for Programmers' is a programming-language focused book designed to get practicing programmers up-to-speed quickly in Swift programming. The Deitels provide thousands of lines of proven Swift code in the book, using a mix of code snippets and live-code examples. When they present code snippets rather than full-length complete programs, the snippet will be extracted from a Deitel-created, compiled, live-code example to ensure that the snippet is correct

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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). The Swift standard library is developed using protocol-oriented programming techniques, generics, and first-class value semantics; therefore it is important that every Swift developer understand these powerful concepts and how to take advantage of them. This book will demonstrate how to use protocol-oriented programming techniques to build ...

Swift OS X Programming for Absolute Beginners is your step-by-step guide to learning how to code using Swift, Apple's hottest new programming language. This book will not only teach complete programming novices how to write OS X programs, but it can also help experienced programmers moving to the Macintosh for the first time. You will learn to understand the principles of programming, how to use Swift and Xcode, and how to combine your knowledge into writing OS X programs. If you've always wanted to learn coding but felt stymied by the limitation of simplistic programming languages or intimidated by professional but complicated programming languages, then you'll want to learn Swift. Swift is your gateway to both Macintosh and iOS app development while being powerful and easy to learn at the same time, and Swift OS X Programming for Absolute Beginners is the perfect place to start - add it to your library today.

Stay motivated and overcome obstacles while learning to use Swift Playgrounds to be a great iOS developer. This book is perfect for those with no programming background, those with some programming experience but no object-oriented experience, or those that have a great idea for an app but haven't programmed since school, and it is now updated for Swift 4. Many people have a difficult time believing they can learn to write iOS apps. Swift 4 for Absolute Beginners will show you how to do so. You'll learn Object Oriented Programming and be introduced to HealthKit before moving on to write your own iPhone and Watch apps from scratch. Gary Bennett and Brad Lees are full-time professional iOS developers and have developed a broad spectrum of apps for Fortune 500 companies. The authors have taken their combined 14 years of writing apps, teaching online iOS courses, the experience from their first three iOS books, along with their online instruction and free online forum at XcelMe.com to create an excellent training book. And the material in this book is supplemented by with the free, live online training sessions. What You'll Learn Work with Swift classes, properties, and functions Examine proper user interface and user experience design Understand Swift data types: integers, floats, strings, and Booleans Use Swift data collections: arrays and dictionaries Review Boolean logic, comparing data, and flow control Who This Book Is For Anyone who wants to learn to develop apps for the Mac, iPhone, and iPad, and Watch using the Swift programming language. No previous programming experience is necessary.

Bring the power of functional programming to Swift to develop clean, smart, scalable and reliable applications. About This Book Written for the latest version of Swift, this is a comprehensive guide that introduces iOS, Web and macOS developers to the all-new world of functional programming that has so far been alien to them Get familiar with using functional programming alongside existing OOP techniques so you can get the best of both worlds and develop clean, robust, and scalable code Develop a case study on example backend API with Swift and Vapor Framework and an iOS application with Functional Programming, Protocol-Oriented Programming, Functional Reactive Programming, and Object-Oriented Programming techniques Who This Book Is For Meant for a reader who knows object-oriented programming, has some experience with Objective-C/Swift programming languages and wants to further enhance his skills with functional programming techniques with Swift 3.x. What You Will Learn Understand what functional programming is and why it matters Understand custom operators, function

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composition, currying, recursion, and memoization Explore algebraic data types, pattern matching, generics, associated type protocols, and type erasure Get acquainted with higher-kinded types and higher-order functions using practical examples Get familiar with functional and non-functional ways to deal with optionals Make use of functional data structures such as semigroup, monoid, binary search tree, linked list, stack, and lazy list Understand the importance of immutability, copy constructors, and lenses Develop a backend API with Vapor Create an iOS app by combining FP, OOP, FRP, and POP paradigms In Detail Swift is a multi-paradigm programming language enabling you to tackle different problems in various ways. Understanding each paradigm and knowing when and how to utilize and combine them can lead to a better code base. Functional programming (FP) is an important paradigm that empowers us with declarative development and makes applications more suitable for testing, as well as performant and elegant. This book aims to simplify the FP paradigms, making them easily understandable and usable, by showing you how to solve many of your day-to-day development problems using Swift FP. It starts with the basics of FP, and you will go through all the core concepts of Swift and the building blocks of FP. You will also go through important aspects, such as function composition and currying, custom operator definition, monads, functors, applicative functors, memoization, lenses, algebraic data types, type erasure, functional data structures, functional reactive programming (FRP), and protocol-oriented programming (POP). You will then learn to combine those techniques to develop a fully functional iOS application from scratch Style and approach An easy-to-follow guide that is full of hands-on coding examples of real-world applications. Each topic is explained sequentially and placed in context, and for the more inquisitive, there are more details of the concepts used. It introduces the Swift language basics and functional programming techniques in simple, non-mathematical vocabulary with examples in Swift.

Enter the Swift future of iOS and OS X programming Beginning Swift Programming is your ideal starting point for creating Mac, iPhone, and iPad apps using Apple's new Swift programming language. Written by an experienced Apple developer and trainer, this comprehensive guide explains everything you need to know to jumpstart the creation of your app idea. Coverage includes data types, strings and characters, operators and functions, arrays and dictionaries, control flow, and looping, with expert guidance on classes, objects, class inheritance, closures, protocols, and generics. This succinct — yet complete — overview provides a detailed introduction to the core features of Swift. Apple developed Swift to address the limitations of Objective-C, and add features found in more complex languages like Python. The result is simpler, cleaner, more expressive code with automatic memory management, functional programming patterns, and more, including built-in features that make Swift apps faster, scalable, and more secure. This book explains it all, helping developers master Apple's new language. Become fluent with syntax that's easier to read and maintain Understand inferred types for cleaner, less mistake-prone code Learn the key features that make Swift more expressive than Objective-C Learn the new optional types in Swift that make your code more resilient Understand the key design patterns in iOS and Mac OS programming using protocols and delegates Learn how to use generics to create highly reusable code Learn the new access controls mechanism in Swift Get up to speed quickly to remain relevant and ahead of the curve.

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