

Swift 4 Tutorials Point

Have you been wanting to develop Apps for iOS but don't have the prerequisite language skills? Have you tried other iOS books and the code just went over your head? Do you feel like you need a little more coding experience before tackling mobile? Do you want to get a head start on iOS8 development? There is no mobile platform that has proved more dominant-- or more lucrative than iOS! If you're planning on creating native iOS apps, you must know Swift. Swift is an easy-to-learn and powerful language that is used to create iOS8 and OSX apps in the very near future. Companies are scrambling to hire Swift developers and those with aspirations to create iOS apps are learning it as fast as they can. Author Mark Lassoﬀ is a master-instructor with years of teaching experience. You'll master the Swift programming language as you complete the multiple lab exercises that are both interesting and engaging. Dozens and dozens of code examples are available for you to load up and study. Over 150,000 people have learned programming from Mark Lassoﬀ-- this book is one of his best. If you want to learn Swift and become an iOS8 developer, this is your book.

Build on your knowledge of ActionScript to take the fast track developing iOS apps with Apple's latest language, Swift. Swift's syntax is easier to understand than Objective-C for people already familiar with ActionScript. At the same time it offers a number of new features and richer expressiveness than both ActionScript and Objective-C. Switching to a new platform usually involves migration on three levels: tools, workflow, and programming language. This book is structured as a guide that will help you on each level with step-by-step tutorials. Apart from the tutorials, it comes with recipes for some of the most popular mobile development topics: social network integration and messaging, taking advantage of device capabilities, networking and working with local and iCloud data, advertising in your app or game, and 2D and 3D graphics. The book also includes a final chapter that takes you through Apple's App Store submission process. Don't just build your apps, sell them. What You Will Learn: Expand your development knowledge to native iOS programming with Swift Use the latest Xcode 7 IDE Migrate your existing ActionScript projects to Swift Create advanced UI, leverage the device hardware, integrate with social networks, take advantage of 2D and 3D graphics Diagnose your app quickly with Xcode's debugger and instruments Prepare and submit our iOS app in Apple's App Store Who This Book is For: Migrating to Swift from Flash and ActionScript is for Flash and Adobe AIR developers who want to move on to native iOS programming with the latest Apple Swift language. It's for the seasoned ActionScript programmer who is looking to add another language and platform to their tool belt quickly. Migrating to Swift from Flash and ActionScript is a good choice for developers who learn by doing and don't have time to read thick manuals and books for beginners in order to start programming in a new language.

"Have you always wanted to learn computer programming but are afraid it'll be too difficult for you? Or perhaps you know other programming languages but are interested in learning the Python language fast? This book is for you"--Page 4 of cover.

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.

iOS 11, Swift 4, and Xcode 9 provide many new APIs for iOS developers. With this cookbook, you'll learn more than 170 proven solutions for tackling the latest features in iOS 11 and watchOS 4, including new ways to use Swift and Xcode to make your day-to-day app development life easier. This collection of code-rich recipes also gets you up to speed on continuous delivery and continuous integration systems. Ideal for intermediate and advanced iOS developers looking to work with the newest version of iOS, these recipes include reusable code on GitHub, so you can put them to work in your project right away. Among the topics covered in this book: New features in Swift 4 and Xcode 9 Tools for continuous delivery and continuous integration Snapshot testing and test automation Creating document-based applications Updated Map view and Core Location features iOS 11's Security and Password Autofill Data storage with Apple's Core Data Creating lively user interfaces with UI Dynamics Building iMessage applications and sticker packages Integrating Siri into your apps with Siri Kit Creating fascinating apps for Apple Watch

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

When Apple announced Swift at the WWDC, the iOS developer community became excited about the opportunities to improve the way in which they build iOS apps. Swift is a user-friendly language with a smooth learning curve; it is safe, robust, and flexible, and it introduces new ways to solve old problems. Swift by Example is a fast-paced, practical guide that shows you how to develop iOS apps using Swift. Through the development of six different apps, you'll learn how to use either the right feature of the language or the right tool to solve a given problem. By the end of the book you will be able to build well-designed apps, effectively use AutoLayout, and develop a video game.

Are You Ready To Learn JSON Easily? This book contains the steps, strategies, and techniques you need to learn, explore, and use JSON, the preferred and standard data format of the web. It was conceptualized and developed to provide beginners and web developers a comprehensive training that will help them master JSON in as short as one day. What is JSON and why should you learn it? JSON stands for JavaScript Object Notation. A subset of JavaScript, it is a way of storing information in an organized manner. It provides human readable data that can be accessed easily and logically. JSON facilitates data transfer between a server and a web application. The JSON format is used to serialize and transmit structured data over the internet. Its simplicity and flexibility allows it to be used across applications, programming languages, and framework. JSON is a lightweight text-only format that can be easily transferred to and from a server. While it is strongly associated with JavaScript, JSON is a language-independent format that is popularly used in modern programming languages such as Python, PERL, Java, Ruby, and PHP. You'll typically find built-in functions, methods, or workaround that allow these programming languages to utilize JSON. Here Is What You'll Learn After Downloading This JSON Programming Book: ? Introduction CHAPTER 1: THE BASICS? CHAPTER 2: JSON SYNTAX CHAPTER 3: DATA TYPES ? CHAPTER 4: CREATING JSON OBJECTS CHAPTER 5: PARSING JSON ? CHAPTER 6: JSON DATA PERSISTENCE CHAPTER 7: DATA INTERCHANGE ? CHAPTER 8: CROSS-ORIGIN RESOURCES CHAPTER 9: POSTING JSON? CHAPTER 10: WORKING WITH TEMPLATES CHAPTER 11: JSON WITH PHP What Are You Waiting For? Start Coding with JSON Right Now!

Get Advanced With Git! If you're involved with software development, chances are you've heard of and used Git at some point. Version control systems are critical for any successful collaborative software project. Git is simple to start using, while accommodating the most complex tasks with version control. However, even seasoned Git users hit roadblocks on how to handle everyday situations. Advanced Git is here to help! This book begins where the other Git book in our catalog, "Git Apprentice", ends. Who This Book Is For This book is for anyone who wants to leverage version control's power with Git in their software development process. It starts with a look under Git's hood, then moves on to more complicated scenarios including merge conflicts, rebasing and more. Finally, you'll learn common workflows using Git. Topics Covered in Advanced Git How Git actually works: After using Git for a while, it's good to discover the whys behind all the things. Rebasing: A more advanced way of merging code and collaborating. Merge Conflicts & Undo: You'll eventually run into problems while using Git. Find out how to handle them with ease. Workflows in Git: Working with Git requires some rules to ensure things go smoothly across development teams. Learn the most common workflows and how to decide which to use for your project. One thing you can count on: After reading this book, you'll be well-prepared to use Git in your software development workflow!

The free book "Fundamentals of Computer Programming with C#" is a comprehensive computer programming tutorial that teaches programming, logical thinking, data structures and algorithms, problem solving and high quality code with lots of examples in C#. It starts with the first steps in programming and software development like variables, data types, conditional statements, loops and arrays and continues with other basic topics like methods, numeral systems, strings and string processing, exceptions, classes and objects. After the basics this fundamental programming book enters into more advanced programming topics like recursion, data structures (lists, trees, hash-tables and graphs), high-quality code, unit testing and refactoring, object-oriented principles (inheritance, abstraction, encapsulation and polymorphism) and their implementation the C# language. It also covers fundamental topics that each good developer should know like algorithm design, complexity of algorithms and problem solving. The book uses C# language and Visual Studio to illustrate the programming concepts and explains some C# / .NET specific technologies like lambda expressions, extension methods and LINQ. The book is written by a team of developers lead by Svetlin Nakov who has 20+ years practical software development experience. It teaches the major programming concepts and way of thinking needed to become a good software engineer and the C# language in the meantime. It is a great start for anyone who wants to become a skillful software engineer. The books does not teach technologies like databases, mobile and web development, but shows the true way to master the basics of programming regardless of the languages, technologies and tools. It is good for beginners and intermediate developers who want to put a solid base for a successful career in the software engineering industry. The book is accompanied by free video lessons, presentation slides and mind maps, as well as hundreds of exercises and live examples.

Download the free C# programming book, videos, presentations and other resources from <http://introprogramming.info>. Title: Fundamentals of Computer Programming with C# (The Bulgarian C# Programming Book) ISBN: 9789544007737 ISBN-13: 978-954-400-773-7 (9789544007737) ISBN-10: 954-400-773-3 (9544007733) Author: Svetlin Nakov & Co. Pages: 1132 Language: English Published: Sofia, 2013 Publisher: Faber Publishing, Bulgaria Web site: <http://www.introprogramming.info> License: CC-Attribution-Share-Alike Tags: free, programming, book, computer programming, programming fundamentals, ebook, book programming, C#, CSharp, C# book, tutorial, C# tutorial; programming concepts, programming fundamentals, compiler, Visual Studio, .NET, .NET Framework, data types, variables, expressions, statements, console, conditional statements, control-flow logic, loops, arrays, numeral systems, methods, strings, text processing, StringBuilder, exceptions, exception handling, stack trace, streams, files, text files, linear data structures, list, linked list, stack, queue, tree, balanced tree, graph, depth-first search, DFS, breadth-first search, BFS, dictionaries, hash tables, associative arrays, sets, algorithms, sorting algorithm, searching algorithms, recursion, combinatorial algorithms, algorithm complexity, OOP, object-oriented programming, classes, objects, constructors, fields, properties, static members, abstraction, interfaces, encapsulation, inheritance, virtual methods, polymorphism, cohesion, coupling, enumerations, generics, namespaces, UML, design patterns, extension methods, anonymous types, lambda expressions, LINQ, code quality, high-quality code, high-quality classes, high-quality methods, code formatting, self-documenting code, code refactoring, problem solving, problem solving methodology, 9789544007737, 9544007733

Programming Fundamentals - A Modular Structured Approach using C++ is written by Kenneth Leroy Busbee, a faculty member at Houston Community College in Houston, Texas. The materials used in this textbook/collection were developed by the author and others as independent modules for publication within the Connexions environment. Programming fundamentals are

often divided into three college courses: Modular/Structured, Object Oriented and Data Structures. This textbook/collection covers the rest of those three courses.

Work in Flutter, a framework designed from the ground up for dual platform development, with support for native Java/Kotlin or Objective-C/Swift methods from Flutter apps. Write your next app in one language and build it for both Android and iOS. Deliver the native look, feel, and performance you and your users expect from an app written with each platform's own tools and languages. Deliver apps fast, doing half the work you were doing before and exploiting powerful new features to speed up development. Write once, run anywhere. Learn Flutter, Google's multi-platform mobile development framework. Instantly view the changes you make to an app with stateful hot reload and define a declarative UI in the same language as the app logic, without having to use separate XML UI files. You can also reuse existing platform-specific Android and iOS code and interact with it in an efficient and simple way. Use built-in UI elements - or build your own - to create a simple calculator app. Run native Java/Kotlin or Objective-C/Swift methods from your Flutter apps, and use a Flutter package to make HTTP requests to a Web API or to perform read and write operations on local storage. Apply visual effects to widgets, create transitions and animations, create a chat app using Firebase, and deploy everything on both platforms. Get native look and feel and performance in your Android and iOS apps, and the ability to build for both platforms from a single code base. What You Need: Flutter can be used for Android development on any Linux, Windows or macOS computer, but macOS is needed for iOS development.

The simplest way to create world-class apps Have a unique app idea but worried you don't quite have the coding skills to build it? Good news: You can stop fretting about someone beating you to market with the same idea and start work right now using SwiftUI. SwiftUI is a gateway app development framework that has become one of the best ways for fledgling developers to get iOS apps off the ground without having to become a coding expert overnight. SwiftUI For Dummies makes that process even faster, providing a friendly introduction to the SwiftUI and Swift programming language and helping you feel right at home creating and building with playgrounds. The book also covers the frameworks and APIs that make it so easy to create smooth, intuitive interfaces—just dive right in and have fun! Combine projects into workspaces Employ Xcode editing tools Use constants and variables Test your code on iOS Simulator Time is of the essence, and with SwiftUI For Dummies, it's also on your side. Get going with this friendly guide today, and you'll be celebrating the successful launch of your app way before you thought possible!

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

"Learn to program games using Apple's new framework: Sprite Kit!"--Cover.

This is a step-by-step guide to developing applications for Apple's Mac OS X. It describes how to build object-oriented apps using Cocoa.

The goal of this book is to teach the skills necessary to build iOS 14 applications using SwiftUI, Xcode 12 and the Swift 5.3 programming language. Beginning with the basics, this book provides an outline of the steps necessary to set up an iOS development environment together with an introduction to the use of Swift Playgrounds to learn and experiment with Swift. The book also includes in-depth chapters introducing the Swift 5.3 programming language including data types, control flow, functions, object-oriented programming, property wrappers and error handling. An introduction to the key concepts of SwiftUI and project architecture is followed by a guided tour of Xcode in SwiftUI development mode. The book also covers the creation of custom SwiftUI views and explains how these views are combined to create user interface layouts including the use of stacks, frames and forms. Other topics covered include data handling using state properties in addition to observable, state and environment objects, as are key user interface design concepts such as modifiers, lists, tabbed views, context menus, user interface navigation, and outline groups. The book also includes chapters covering graphics drawing, user interface animation, view transitions and gesture handling, WidgetKit, document-based apps and SiriKit integration. Chapters are also provided explaining how to integrate SwiftUI views into existing UIKit-based projects and explains the integration of UIKit code into SwiftUI. Finally, the book explains how to package up a completed app and upload it to the App Store for publication. Along the way, the topics covered in the book are put into practice through detailed tutorials, the source code for which is also available for download. The aim of this book, therefore, is to teach you the skills necessary to build your own apps for iOS 14 using SwiftUI. Assuming you are ready to download the iOS 14 SDK and Xcode 12 and have an Apple Mac system you are ready to get started.

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

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

Learn iOS Design Patterns! Design patterns are reusable solutions to common development problems. They aren't project specific, so you can adapt and use them in countless apps. By learning design patterns, you'll become a better developer, save time and work less. Design Patterns by Tutorials is here to help! This book is the easiest and fastest way to get hands-on experience with the iOS design patterns you need to know. Who This Book Is For Whether you're a beginner, intermediate or advanced iOS developer, this book is for you. You can either read this book from cover to cover, or skip around to just the patterns you want to learn. Topics Covered in Design Patterns by Tutorials Getting Started: You'll first learn about how design patterns work and how they can help you build better, cleaner apps. Fundamental Patterns: You'll progress onto fundamental design patterns, such as MVC, Delegation, and Strategy, which you're likely to use on every iOS app. Intermediate Patterns: You'll then learn about intermediate design patterns, such as MVVM, Factory, and Adapter, which are less common than fundamental patterns but still very useful for most apps. You'll finish off by learning about advanced design patterns, including Flyweight, Mediator and Command. You likely won't use these on every app, but they may be just what you need to solve a difficult problem. One thing you can count on: after reading this book, you'll be well-prepared to use design patterns in your own apps!

Learn & Master SwiftUI! Every developer wants to build the most fluid and engaging declarative UI for their apps with as little code as possible. SwiftUI will help you do just that. Learn all the main concepts through an easy-to-follow tutorials where you'll build apps that teach you to create modern, responsive UI and animations that look great on iOS, iPadOS, watchOS, tvOS, and even macOS. Who This Book Is For This book is for intermediate iOS developers who already know the basics of iOS, and who wish to know everything there is to know about SwiftUI. Topics Covered in SwiftUI by Tutorials SwiftUI Overview: Learn SwiftUI features, as well as the differences between Apple's platforms with SwiftUI. Customize your apps for AppKit, UIKit, WatchKit, tvOS, iPadOS and even Catalyst. Testability: See how to apply UI Testing to your SwiftUI apps in this very simple, yet powerful course. Controls & User Input: Learn about controls such as TextField, Button, Toggle, Slider, Stepper, pickers and many more. State & Data Flow: Learn how to bind data to the UI, about reactive updates to the UI through state management, and in-depth usage of the attributes related to SwiftUI. Accessibility: Learn how to navigate your app with VoiceOver on an iOS device and use the SwiftUI Accessibility API attributes to improve your app's accessible UI. Drawing Custom Graphics & Animations: Create drawings, graphics, animations and even view transitions in SwiftUI. macOS: Learn how to create a document-based Mac app and later start with an existing iOS app and learn how to re-use code, views and assets for creating a macOS app. One thing you can count on: After you finish reading this book, you'll be able to take advantage of the latest and greatest features of SwiftUI to bring modern declarative UX to your apps.

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 ...

Offers an Introductory Guide to Programming in FORTH

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 Android Studio covers Android Studio and its rich tools ecosystem, including Git and Gradle: this book covers how Android Studio works seamlessly with Git, for source control, and Gradle, a build and test tool. In addition, this book demonstrates how to develop/collaborate with remote Git web-hosting services such as GitHub and Bitbucket. Four complete Android projects accompany this volume and are available for download from a public Git repository. With this book, you learn the latest and most productive tools in the Android tools ecosystem, and the best practices for Android app development. You will be able to take away the labs' code as templates or frameworks to re-use and customize for your own similar apps. Android Studio is an intuitive, feature-rich, and extremely forgiving Integrated Development Environment (IDE). This IDE is more productive and easier to use for your Android app creations than Eclipse. With this book you will quickly master Android Studio and maximize your Android development time. Source code on the remote web-hosting service is targeted to the latest Android Studio release, version 1.2.

A catalog of solutions to commonly occurring design problems, presenting 23 patterns that allow designers to create flexible and reusable designs for object-oriented software. Describes the circumstances in which each pattern is applicable, and discusses the consequences and trade-offs of using the pattern within a larger design. Patterns are compiled from real systems, and include code for implementation in object-oriented programming languages like C++ and Smalltalk. Includes a bibliography. Annotation copyright by Book News, Inc., Portland, OR

Reactive Programming with Java and ReactiveX About This Book Explore the essential tools and operators RxJava provides, and know which situations to use them in Delve into Observables and

Subscribers, the core components of RxJava used for building scalable and performant reactive applications Delve into the practical implementation of tools to effectively take on complex tasks such as concurrency and backpressure Who This Book Is For The primary audience for this book is developers with at least a fundamental mastery of Java. Some readers will likely be interested in RxJava to make programs more resilient, concurrent, and scalable. Others may be checking out reactive programming just to see what it is all about, and to judge whether it can solve any problems they may have. What You Will Learn Learn the features of RxJava 2 that bring about many significant changes, including new reactive types such as Flowable, Single, Maybe, and Completable Understand how reactive programming works and the mindset to "think reactively" Demystify the Observable and how it quickly expresses data and events as sequences Learn the various Rx operators that transform, filter, and combine data and event sequences Leverage multicasting to push data to multiple destinations, and cache and replay them Discover how concurrency and parallelization work in RxJava, and how it makes these traditionally complex tasks trivial to implement Apply RxJava and Retrolambda to the Android domain to create responsive Android apps with better user experiences Use RxJava with the Kotlin language to express RxJava more idiomatically with extension functions, data classes, and other Kotlin features In Detail RxJava is a library for composing asynchronous and event-based programs using Observable sequences for the JVM, allowing developers to build robust applications in less time. Learning RxJava addresses all the fundamentals of reactive programming to help readers write reactive code, as well as teach them an effective approach to designing and implementing reactive libraries and applications. Starting with a brief introduction to reactive programming concepts, there is an overview of Observables and Observers, the core components of RxJava, and how to combine different streams of data and events together. You will also learn simpler ways to achieve concurrency and remain highly performant, with no need for synchronization. Later on, we will leverage backpressure and other strategies to cope with rapidly-producing sources to prevent bottlenecks in your application. After covering custom operators, testing, and debugging, the book dives into hands-on examples using RxJava on Android as well as Kotlin. Style and approach This book will be different from other Rx books, taking an approach that comprehensively covers Rx concepts and practical applications.

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

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 ForThis 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 SwiftProtocols 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.

You Will Learn C! Zed Shaw has crafted the perfect course for the beginning C programmer eager to advance their skills in any language. Follow it and you will learn the many skills early and junior programmers need to succeed—just like the hundreds of thousands of programmers Zed has taught to date! You bring discipline, commitment, persistence, and experience with any programming language; the author supplies everything else. In Learn C the Hard Way , you'll learn C by working through 52 brilliantly crafted exercises. Watch Zed Shaw's teaching video and read the exercise. Type his code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn what good, modern C programs look like; how to think more effectively about code; and how to find and fix mistakes far more efficiently. Most importantly, you'll master rigorous defensive programming techniques, so you can use any language to create software that protects itself from malicious activity and defects. Through practical projects you'll apply what you learn to build confidence in your new skills. Shaw teaches the key skills you need to start writing excellent C software, including Setting up a C environment Basic syntax and idioms Compilation, make files, and linkers Operators, variables, and data types Program control Arrays and strings Functions, pointers, and structs Memory allocation I/O and files Libraries Data structures, including linked lists, sort, and search Stacks and queues Debugging, defensive coding, and automated testing Fixing stack overflows, illegal memory access, and more Breaking and hacking your own C code It'll Be Hard at First. But Soon, You'll Just Get It—And That Will Feel Great! This tutorial will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful programming languages. You'll be a C programmer.

To be an NSHipster is to care deeply about the craft of writing code. In cultivating a deep understanding and appreciation of Objective-C, its frameworks and ecosystem, one is able to create apps that delight and inspire users. Combining articles from NSHipster.com with new essays, this book is the essential guide for modern iOS and Mac OS X developers.

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).

Updated for Xcode 7.3 and Swift 2.3 Make Delightful Animations with Swift! There's no denying it: creating animations is one of the most enjoyable parts of iOS development. Animations are fun to create, they breathe life into your user interface, and they make your app a delight to use. In this book, you'll learn about iOS animation in Swift from beginning to advanced through a series of hands-on tutorials and challenges, that make your app look and feel great. Up to date with iOS 9, Xcode 7.3, and Swift 2.3. Who This Book Is For: This book is for intermediate to advanced developers, who already know the basics of iOS and Swift development and want to dive deep into animations. Topics Covered in iOS Animations by Tutorials: View Animations: Start with the basics by learning how to animate views: size, position, color, and more. Springs: Make your animations bounce with realistic spring behavior. Transitions: Add subtle transitoins when you add or remove subviews. Keyframe Animations: Learn how to make

complex animations with precise multi-stage timing. Animation and Auto Layout: Learn how to animate with Auto Layout by animating constraints. Layer Animations: Dive deeper and use layer animation for more advanced techniques. Shapes and Masks: Learn how to use shapes and layer masks for cool effects. Gradient Animations: Make moving gradients like the "slide to unlock" screen. Stroke and Path Animations: Animate lines moving over time along a path. 3D Animations: Rotate, translate, and scale your layers over time in three dimensions. And much more, including: Particle emitters, frame animations, and third-party animation libraries! The iOS Tutorial Team takes pride in making sure each tutorial we write holds to the highest standards of quality. We want our tutorials to be well written, easy to follow, and fun. And we don't want to just skim the surface of a subject - we want to really dig into it, so you can truly understand how it works and apply the knowledge directly in your own apps.

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. Used by sites as varied as Twitter, GitHub, Disney, and Airbnb, Ruby on Rails is one of the most popular frameworks for developing web applications, but it can be challenging to learn and use. Whether you're new to web development or new only to Rails, Ruby on Rails™ Tutorial, Fourth Edition, is the solution. Best-selling author and leading Rails developer Michael Hartl teaches Rails by guiding you through the development of three example applications of increasing sophistication. The tutorial's examples focus on the general principles of web development needed for virtually any kind of website. The updates to this edition include full compatibility with Rails 5, a division of the largest chapters into more manageable units, and a huge number of new exercises interspersed in each chapter for maximum reinforcement of the material. This indispensable guide provides integrated tutorials not only for Rails, but also for the essential Ruby, HTML, CSS, and SQL skills you need when developing web applications. Hartl explains how each new technique solves a real-world problem, and then he demonstrates it with bite-sized code that's simple enough to understand, yet novel enough to be useful. Whatever your previous web development experience, this book will guide you to true Rails mastery. This book will help you Install and set up your Rails development environment, including pre-installed integrated development environment (IDE) in the cloud Go beyond generated code to truly understand how to build Rails applications from scratch Learn testing and test-driven development (TDD) Effectively use the Model-View-Controller (MVC) pattern Structure applications using the REST architecture Build static pages and transform them into dynamic ones Master the Ruby programming skills all Rails developers need Create high-quality site layouts and data models Implement registration and authentication systems, including validation and secure passwords Update, display, and delete users Upload images in production using a cloud storage service Implement account activation and password reset, including sending email with Rails Add social features and microblogging, including an introduction to Ajax Record version changes with Git and create a secure remote repository at Bitbucket Deploy your applications early and often with Heroku

Completely revised and updated, this best-selling introduction to programming in JavaScript focuses on writing real applications. JavaScript lies at the heart of almost every modern web application, from social apps like Twitter to browser-based game frameworks like Phaser and Babylon. Though simple for beginners to pick up and play with, JavaScript is a flexible, complex language that you can use to build full-scale applications. This much anticipated and thoroughly revised third edition of Eloquent JavaScript dives deep into the JavaScript language to show you how to write beautiful, effective code. It has been updated to reflect the current state of JavaScript and web browsers and includes brand-new material on features like class notation, arrow functions, iterators, async functions, template strings, and block scope. A host of new exercises have also been added to test your skills and keep you on track. As with previous editions, Haverbeke continues to teach through extensive examples and immerses you in code from the start, while exercises and full-chapter projects give you hands-on experience with writing your own programs. You start by learning the basic structure of the JavaScript language as well as control structures, functions, and data structures to help you write basic programs. Then you'll learn about error handling and bug fixing, modularity, and asynchronous programming before moving on to web browsers and how JavaScript is used to program them. As you build projects such as an artificial life simulation, a simple programming language, and a paint program, you'll learn how to: - Understand the essential elements of programming, including syntax, control, and data - Organize and clarify your code with object-oriented and functional programming techniques - Script the browser and make basic web applications - Use the DOM effectively to interact with browsers - Harness Node.js to build servers and utilities Isn't it time you became fluent in the language of the Web? * All source code is available online in an inter-active sandbox, where you can edit the code, run it, and see its output instantly.

Master Metal: The Next-Generation Graphics and GPU Programming Platform for Apple Developers Metal enables Apple developers to maximize performance in demanding tasks like 3D graphics, games, scientific programming, visualization, and GPU-accelerated machine learning. Metal® Programming Guide is the authoritative, practical guide to Metal for all iOS programmers who are interested in graphics programming but don't know where to start. Pioneering Apple developer Janie Clayton covers everything from basic draw calls to advanced parallel computing, combining easy-to-understand conceptual explanations with well-tested Swift 4/Xcode 9 sample code (available for download at GitHub). Clayton introduces the essential Metal, graphics, and math concepts every graphics programmer needs to know. She also discusses key graphics-specific libraries, concepts, and Metal Classes, presenting techniques and examples you'll find valuable for both graphics and data processing. Clayton also provides coverage of the Metal Compute Pipeline, demonstrating practical GPU programming applications ranging from image processing to neural networking. Quickly get a basic Metal project running Work with Metal resources and memory management Learn how shaders are compiled and accessed by the CPU Program both 2D and 3D graphics with Metal Import 3D models and assets from Blender, Maya, and other programs Apply imported textures to model objects Use multipass rendering to efficiently implement computationally expensive techniques Leverage tessellation to reduce mesh detail Use the GPU for a wide spectrum of general-purpose computing applications Get started with the Metal Performance Shaders Framework

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!

IOS 12 Programming Fundamentals with Swift Swift, Xcode, and Cocoa Basics Swift for Beginners Develop and Design Pearson Education

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 includes additional resources.

Build your own low-level game engine in Metal! This book introduces you to graphics programming in Metal - Apple's framework for programming on the GPU. You'll build your own game engine in Metal where you can create 3D scenes and build your own 3D games. Who This Book Is For This book is for intermediate Swift developers interested in learning 3D graphics or gaining a deeper understanding of how game engines work. Topics Covered in Metal by Tutorials The Rendering Pipeline: Take a deep dive through the graphics pipeline. 3D Models: Import 3D models with Model I/O and discover what makes up a 3D model. Coordinate Spaces: Learn the math behind 3D rendering. Lighting: Make your models look more realistic with simple lighting techniques. Textures & Materials: Design textures and surfaces for micro detail. Character Animation: Bring your 3D models to life with joints and animation. Tessellation: Discover how to use tessellation to add a greater level of detail using fewer resources. Environment: Add a sky to your scenes and use the sky image for lighting. Instancing & Procedural Generation: Save resources with instancing, and generate scenes algorithmically. Multipass & Deferred Rendering: Add shadows with advanced lighting effects. And more! After reading this book, you'll be prepared to take full advantage of graphics rendering with the Metal framework.

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.

[Copyright: 0f79b4e7fd5ddc7b3c0a19e344c1d270](https://www.peachpit.com/swiftbeginners)