

Kotlin Android Studio 3 0 Development Essentials Android 8 Edition

Learn Android StudioPro Android with KotlinMastering KotlinLearn Android Studio 3 with KotlinHands-On Design Patterns with KotlinFirebase Essentials - Android EditionProgramming KotlinLearning Kotlin by building Android ApplicationsAndroid ProgrammingKotlin Programming CookbookLearn Kotlin for Android DevelopmentKotlin Programming By ExampleKotlin / Android Studio 3.0 Development Essentials - Android 8 EditionAndroid Studio 2 Development EssentialsProfessional AndroidKotlin ProgrammingAndroid Studio 4.0 Development Essentials - Kotlin EditionKotlin in ActionAndroid ApprenticeMastering Android Development with KotlinHead First KotlinKotlin In-depth [Vol-II]Learn Spring for Android Application DevelopmentMastering Android Studio 3Android Development with KotlinKotlin for Android DevelopersKotlin CookbookKotlin ApprenticeClean ArchitectureAndroid 9 Development CookbookProgramming KotlinAndroid Development with KotlinKotlin for Android App DevelopmentThe Busy Coder's Guide to Advanced Android DevelopmentKotlin Standard Library CookbookLearning Concurrency in KotlinReactive Programming in KotlinAndroid Studio CookbookAndroid Studio 4.1 Development Essentials - Kotlin EditionLearn Android Studio 3 with Kotlin

Learn Android Studio

Unleash the power of Android Studio 3 to develop mobile applications faster and efficiently. About This Book Use Android Studio not just as an IDE but as a complete testing and build solution Produce customized APKs with Gradle to suit various versions of an app, such as test versions and free versions of an otherwise paid app. Explore all aspects of UI development and testing using working XML and Java examples. Learn seamless migration from Eclipse and other development platforms to Android Studio. Who This Book Is For This book targets developers, with experience of developing for Android, who are new to Android Studio or wish to migrate from another IDE such as Eclipse. This book will show you how to get the utmost from this powerful tool. What You Will Learn Create styles, themes, and material designs Set up, configure, and run virtual devices using the AVD manager Improve the design of your application using support libraries Learn about GitHub libraries Use emulators to design layouts for a wide variety of devices, including wearables. Improve application performance in terms of memory, speed, and power usage In Detail Android Studio is an Integrated Development Environment (IDE) designed for developing Android apps. As with most development processes, Android keeps resources and logic nicely separated, and so this book covers the management of imagery and other resources, and the development and testing tools provided by the IDE. After introducing the software, the book moves straight into UI development using the sophisticated, WYSIWYG layout editor and XML code

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to design and test complex interfaces for a wide variety of screen configurations. With activity design covered, the book continues to guide the reader through application logic development, exploring the latest APIs provided by the SDK. Each topic will be demonstrated by working code samples that can be run on a device or emulator. One of Android Studio's greatest features is the large number of third-party plugins available for it, and throughout the book we will be exploring the most useful of these, along with samples and libraries that can be found on GitHub. The final module of the book deals with the final stages of development: building and distribution. The book concludes by taking the reader through the registration and publication processes required by Google. By the time you have finished the book, you will be able to build faster, smoother, and error-free Android applications, in less time and with fewer complications than you ever thought possible. Style and approach This is a step-by-step guide with examples demonstrating how Android Studio can be used as a complete solution for developing, testing, and deploying apps from start to finish.

Pro Android with Kotlin

Fully updated for Android Studio 4.1, Android 11 (R), Android Jetpack and the modern architectural guidelines and components, the goal of this book is to teach the skills necessary to develop Android-based applications using the Kotlin programming language. Beginning with the basics, this book provides an outline of

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the steps necessary to set up an Android development and testing environment followed by an introduction to programming in Kotlin including data types, flow control, functions, lambdas, coroutines and object-oriented programming. An overview of Android Studio is included covering areas such as tool windows, the code editor and the Layout Editor tool. An introduction to the architecture of Android is followed by an in-depth look at the design of Android applications and user interfaces using the Android Studio environment. Chapters are also included covering the Android Architecture Components including view models, lifecycle management, Room databases, app navigation, live data and data binding. More advanced topics such as intents are also covered, as are touch screen handling, gesture recognition and the playback and recording of audio. This edition of the book also covers printing, transitions, cloud-based file storage and foldable device support. The concepts of material design are also covered in detail, including the use of floating action buttons, Snackbars, tabbed interfaces, card views, navigation drawers and collapsing toolbars. Other key features of Android Studio 4.1 and the Android 11 SDK are also covered in detail including the Layout Editor, the ConstraintLayout and ConstraintSet classes, MotionLayout animation, constraint chains and barriers, view binding, direct reply notifications and multi-window support. Chapters also cover advanced features of Android Studio such as App Links, Dynamic Feature Modules, the Android Studio Profiler and Gradle build configuration. Assuming you already have some programming experience, are ready to download Android Studio and the Android SDK, have access to a Windows,

Mac or Linux system and ideas for some apps to develop, you are ready to get started.

Mastering Kotlin

Practical Software Architecture Solutions from the Legendary Robert C. Martin (“Uncle Bob”) By applying universal rules of software architecture, you can dramatically improve developer productivity throughout the life of any software system. Now, building upon the success of his best-selling books Clean Code and The Clean Coder, legendary software craftsman Robert C. Martin (“Uncle Bob”) reveals those rules and helps you apply them. Martin’s Clean Architecture doesn’t merely present options. Drawing on over a half-century of experience in software environments of every imaginable type, Martin tells you what choices to make and why they are critical to your success. As you’ve come to expect from Uncle Bob, this book is packed with direct, no-nonsense solutions for the real challenges you’ll face—the ones that will make or break your projects. Learn what software architects need to achieve—and core disciplines and practices for achieving it Master essential software design principles for addressing function, component separation, and data management See how programming paradigms impose discipline by restricting what developers can do Understand what’s critically important and what’s merely a “detail” Implement optimal, high-level structures for web, database, thick-client, console, and embedded applications Define appropriate

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boundaries and layers, and organize components and services See why designs and architectures go wrong, and how to prevent (or fix) these failures Clean Architecture is essential reading for every current or aspiring software architect, systems analyst, system designer, and software manager—and for every programmer who must execute someone else’s designs. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

Learn Android Studio 3 with Kotlin

What will you learn from this book? Head First Kotlin is a complete introduction to coding in Kotlin. This hands-on book helps you learn the Kotlin language with a unique method that goes beyond syntax and how-to manuals and teaches you how to think like a great Kotlin developer. You’ll learn everything from language fundamentals to collections, generics, lambdas, and higher-order functions. Along the way, you’ll get to play with both object-oriented and functional programming. If you want to really understand Kotlin, this is the book for you. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Kotlin uses a visually rich format to engage your mind rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multisensory learning experience is designed for the way your brain really works.

Hands-On Design Patterns with Kotlin

Explore popular language features, Java to Kotlin interoperability, advanced topics, and practical applications by building a variety of sample projects

Key Features

- Understand and leverage the syntax, tools, and patterns by writing code in Kotlin
- Explore practical topics such as Java interop, concurrency with coroutines, and functional programming
- Discover how to use Kotlin for build targets like Android, iOS, JavaScript, and backend service

Book Description Using Kotlin without taking advantage of its power and interoperability is like owning a sports car and never taking it out of the garage. While documentation and introductory resources can help you learn the basics of Kotlin, the fact that it's a new language means that there are limited learning resources and code bases available in comparison to Java and other established languages. This Kotlin book will show you how to leverage software designs and concepts that have made Java the most dominant enterprise programming language. You'll understand how Kotlin is a modern approach to object-oriented programming (OOP). This book will take you through the vast array of features that Kotlin provides over other languages. These features include seamless interoperability with Java, efficient syntax, built-in functional programming constructs, and support for creating your own DSL. Finally, you will gain an understanding of implementing practical design patterns and best practices to help you master the Kotlin language. By the end of the book, you'll have obtained an advanced understanding of Kotlin in order to be able to build

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production-grade applications. What you will learn Model data using interfaces, classes, and data classes Grapple with practical interoperability challenges and solutions with Java Build parallel apps using concurrency solutions such as coroutines Explore functional, reactive, and imperative programming to build flexible apps Discover how to build your own domain-specific language Embrace functional programming using the standard library and Arrow Delve into the use of Kotlin for frontend JavaScript development Build server-side services using Kotlin and Ktor Who this book is for If you're a Kotlin developer looking to further their skills or a professional Java developer looking for better or professional resources in order to make a switch to Kotlin, this book is for you. Familiarity with Kotlin programming will assist with understanding key concepts covered in the book.

Firestore Essentials - Android Edition

Design, test, and debug your apps using Android Studio About This Book See what Material design is about and how to apply it your apps Explore the possibilities to develop apps that works on any type of device A step-by-step practical guide that will help you build improved applications, change their look, and debug them Who This Book Is For This book is for developers that are already familiar with programming concepts and have already started creating apps for the Android platform, for example, by using the Eclipse IDE. It is for developers who intend to use Android Studio as their primary IDE or want to use Android Studio more

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efficiently. What You Will Learn Develop Android Studio applications using Genymotion Apply the concepts of Material design to your applications Use memory monitoring tools to tweak performance Build applications for Android Wearable Capture images, video, or audio within your Android app Use content providers to display data Build apps with a cloud-based backend Create media-related apps that will run on phones, phablets, tablets, and TVs In Detail This book starts with an introduction of Android Studio and why you should use this IDE rather than Eclipse. Moving ahead, it teaches you to build a simple app that requires no backend setup but uses Google Cloud or Parse instead. After that, you will learn how to create an Android app that can send and receive text and images using Google Cloud or Parse as a backend. It explains the concepts of Material design and how to apply them to an Android app. Also, it shows you how to build an app that runs on an Android wear device. Later, it explains how to build an app that takes advantage of the latest Android SDK while still supporting older Android versions. It also demonstrates how the performance of an app can be improved and how memory management tools that come with the Android Studio IDE can help you achieve this. By the end of the book, you will be able to develop high quality apps with a minimum amount of effort using the Android Studio IDE. Style and approach This is a practical guide full of challenges and many real-world examples that demonstrate interesting development concepts. Besides smartphones and tablets, it also covers Android wearable devices and Android TV. Although strongly recommended, it is not necessary to own any Android device

yourself.

Programming Kotlin

Build optimized applications in Kotlin by learning how to make use of the standard library features the smart way Key Features Get the most out of the Kotlin library to develop high-quality portable applications Explore the powerful support for data processing and I/O operations Discover ways to enhance your Android application development Book Description Given the verbosity of Java, developers have turned to Kotlin for effective software development. The Kotlin standard library provides vital tools that make day-to-day Kotlin programming easier. This library features the core attributes of the language, such as algorithmic problems, design patterns, data processing, and working with files and data streams. The recipes in this book offer coding solutions that can be readily executed. The book covers various topics related to data processing, I/O operations, and collections transformation. We'll walk through effective design patterns in Kotlin and you'll understand how coroutines add new features to JavaScript. As you make your way through the chapters, you'll learn how to implement clean, reusable functions and scalable interfaces containing default implementations. In the concluding chapters, we'll provide recipes on functional programming concepts, such as lambdas, monads, functors, and Kotlin scoping functions. By the end of the book, you'll be able to address a range of problems that Kotlin developers face by implementing easy-to-

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follow solutions. What you will learn Work with ranges, progressions, and sequences in use cases Add new functionalities to current classes with Kotlin extensions Understand elements such as lambdas, closures, and monads Build a REST API consumer with Retrofit and a coroutine adapter Discover useful tips and solutions for making your Android projects Explore the benefits of standard library features Who this book is for This book is for software developers who are familiar with Kotlin's basics and want to discover more advanced features and concepts, especially those provided by the Kotlin standard library. It's also ideal for experienced software developers who are familiar with the functional programming paradigm and other programming languages who want to switch to Kotlin. It will also help Java developers switch to Kotlin and integrate it into existing Java Virtual Machine (JVM) projects.

Learning Kotlin by building Android Applications

The comprehensive developer guide to the latest Android features and capabilities Professional Android, 4th Edition shows developers how to leverage the latest features of Android to create robust and compelling mobile apps. This hands-on approach provides in-depth coverage through a series of projects, each introducing a new Android platform feature and highlighting the techniques and best practices that exploit its utmost functionality. The exercises begin simply, and gradually build into advanced Android development. Clear, concise examples show you how to

quickly construct real-world mobile applications. This book is your guide to smart, efficient, effective Android development. Learn the best practices that get more out of Android. Understand the anatomy, lifecycle, and UI metaphor of Android apps. Design for all mobile platforms, including tablets. Utilize both the Android framework and Google Play services.

Android Programming

Write More Robust and Maintainable Android Apps with Kotlin “Peter Sommerhoff takes a practical approach to teaching Kotlin by providing a larger set of code listings that demonstrate language features and by guiding readers through the development of two Android apps step by step. . . . Peter finds a good balance between what is essential and what can be left to readers, so this book is an efficient yet comprehensible source for starting programming with Kotlin.”

–Bernhard Rumpe, Professor of Software Engineering, RWTH Aachen University

The Kotlin language brings state-of-the-art programming techniques and constructs to Android development. Kotlin for Android App Development will help you rapidly understand Kotlin’s principles and techniques, apply Kotlin in production app development, integrate Kotlin with existing Java code, and plan a migration to Kotlin, if you choose. If you have at least basic programming experience (with any language), Peter Sommerhoff’s well-crafted overview and examples will help you get quickly up-to-speed with the Kotlin language, its constructs, and its advanced

functional and object-oriented capabilities. Once you've mastered these foundations, Sommerhoff walks you through two complete app development projects, introducing best practices and emerging patterns for writing code that's robust, concise, readable, and highly performant. Understand Kotlin's goals, principles, advantages, design, and constructs Take full advantage of functional programming in the Kotlin environment Write more concise and reusable code using Kotlin's object-oriented features Interoperate with existing Java code, and plan a migration to Kotlin Use coroutines to efficiently handle concurrency Capture data via third-party APIs, map it to internal data representations, and present it to users Master best practices for architecting Kotlin Android apps Improve productivity and readability by creating simple domain-specific languages in Kotlin

Kotlin Programming Cookbook

Develop Android apps with Kotlin to create more elegant programs than the Java equivalent. This book covers the various aspects of a modern Android app that professionals are expected to encounter. There are chapters dealing with all the important aspects of the Android platform, including GUI design, file- and data-handling, coping with phone calls, multimedia apps, interaction with location and mapping services, monetizing apps, and much more. Pro Android with Kotlin is an invaluable source for developers wanting to build real-world state-of-the-art apps for modern Android devices. What You Will Learn Integrate activities, such as

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intents, services, toasts and more, into your Android apps Build UIs in Android using layouts, widgets, lists, menus, and action bars Deal with data in your Android apps using data persistence and cloud access Design for different Android devices Create multimedia apps in Android Secure, deploy, and monetize your Android apps Who This Book Is For Professional Android app developers.

Learn Kotlin for Android Development

Learn how to make Android development much faster using a variety of Kotlin features, from basics to advanced, to write better quality code. About This Book Leverage specific features of Kotlin to ease Android application development Write code based on both object oriented and functional programming to build robust applications Filled with various practical examples so you can easily apply your knowledge to real world scenarios Identify the improved way of dealing with common Java patterns Who This Book Is For This book is for developers who have a basic understanding of Java language and have 6-12 months of experience with Android development and developers who feel comfortable with OOP concepts. What You Will Learn Run a Kotlin application and understand the integration with Android Studio Incorporate Kotlin into new/existing Android Java based project Learn about Kotlin type system to deal with null safety and immutability Define various types of classes and deal with properties Define collections and transform them in functional way Define extensions, new behaviours to existing libraries and

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Android framework classes Use generic type variance modifiers to define subtyping relationship between generic types Build a sample application In Detail Nowadays, improved application development does not just mean building better performing applications. It has become crucial to find improved ways of writing code. Kotlin is a language that helps developers build amazing Android applications easily and effectively. This book discusses Kotlin features in context of Android development. It demonstrates how common examples that are typical for Android development, can be simplified using Kotlin. It also shows all the benefits, improvements and new possibilities provided by this language. The book is divided in three modules that show the power of Kotlin and teach you how to use it properly. Each module present features in different levels of advancement. The first module covers Kotlin basics. This module will lay a firm foundation for the rest of the chapters so you are able to read and understand most of the Kotlin code. The next module dives deeper into the building blocks of Kotlin, such as functions, classes, and function types. You will learn how Kotlin brings many improvements to the table by improving common Java concepts and decreasing code verbosity. The last module presents features that are not present in Java. You will learn how certain tasks can be achieved in simpler ways thanks to Kotlin. Through the book, you will learn how to use Kotlin for Android development. You will get to know and understand most important Kotlin features, and how they can be used. You will be ready to start your own adventure with Android development with Kotlin.

Kotlin Programming By Example

Learn Android programming with Kotlin! Learning Android programming can be challenging. Sure, there is plenty of documentation, but the tools and libraries available today for Android are easily overwhelming for newcomers to Android and Kotlin. Android Apprentice takes a different approach. From building a simple first app, all the way to a fully-featured podcast player app, this book walks you step-by-step, building on basic concepts to advanced techniques so you can build amazing apps worthy of the Google Play Store! Who This Book Is For This book is for anyone interested in writing mobile apps for Android. Though no previous mobile experience is necessary, this book is also a great resource for iPhone developers transitioning from iOS. Topics Covered in Android Apprentice Getting Started: Learn how to set up Android Studio and the Android Emulator. Layouts: Create layouts that can be used for both Activities and Fragments Debugging: No one's perfect! Learn how to dig down and troubleshoot bugs in your apps. Communication: Design separate Activities and communicate and send data between them using Intents. Scrolling Layouts: Learn how to use RecyclerViews to make efficient, reusable views that scroll fluidly at a touch. Google Places: Integrate location APIs to bring the magic of maps into your Android apps. Networking: Learn how to access resources on the internet and handle networked responses. Material Design: Make sure your apps conform to modern best practices by using Google's standards of Material Design And much, much more! One thing

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you can count on: after reading this book, you'll be prepared to write feature-rich apps from scratch and go all the way to submitting them to the Google Play Store!

Kotlin / Android Studio 3.0 Development Essentials - Android 8 Edition

Android Studio 2 Development Essentials

Learn how to implement Reactive Programming paradigms with Kotlin, and apply them to web programming with Spring Framework 5.0 and in Android Application Development. About This Book Learn how to solve blocking user experience with Reactive Programming and get deep insights into RxKotlin Integrate Reactive Kotlin with Spring and build fantastic Android Apps with RxKotlin and RxAndroid Build reactive architectures that reduce complexity throughout the development process and make your apps(web and Android) scalable Who This Book Is For This book is for Kotlin developers who would like to build fault-tolerant, scalable, and distributed systems. A basic knowledge of Kotlin is required, but no prior knowledge of reactive programming. What You Will Learn Learn about reactive programming paradigms and how reactive programming can improve your existing projects Gain in-depth knowledge in RxKotlin 2.0 and the ReactiveX Framework

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Use RxKotlin with Android Create your own custom operators in RxKotlin Use Spring Framework 5.0 with Kotlin Use the reactor-kotlin extension Build Rest APIs with Spring,Hibernate, and RxKotlin Use testSubscriber to test RxKotlin applications Use backpressure management and Flowables In Detail In today's app-driven era, when programs are asynchronous, and responsiveness is so vital, reactive programming can help you write code that's more reliable, easier to scale, and better-performing. Reactive programming is revolutionary. With this practical book, Kotlin developers will first learn how to view problems in the reactive way, and then build programs that leverage the best features of this exciting new programming paradigm. You will begin with the general concepts of Reactive programming and then gradually move on to working with asynchronous data streams. You will dive into advanced techniques such as manipulating time in data-flow, customizing operators and provider and how to Use the concurrency model to control asynchronicity of code and process event handlers effectively. You will then be introduced to functional reactive programming and will learn to apply FRP in practical use cases in Kotlin. This book will also take you one step forward by introducing you to spring 5 and spring boot 2 using Kotlin. By the end of the book, you will be able to build real-world applications with reactive user interfaces as well as you'll learn to implement reactive programming paradigms in Android. Style and Approach Loaded with numerous code examples and real-life projects, this book helps you delve into Reactive Programming with Kotlin, and apply it to real-world Spring-web and Android projects, thus making all your apps reactive.

Professional Android

Fully updated for Android Studio 4.0, Android 10 (Q), Android Jetpack and the modern architectural guidelines and components, the goal of this book is to teach the skills necessary to develop Android-based applications using the Kotlin programming language. Beginning with the basics, this book provides an outline of the steps necessary to set up an Android development and testing environment followed by an introduction to programming in Kotlin including data types, flow control, functions, lambdas, coroutines and object-oriented programming. An overview of Android Studio is included covering areas such as tool windows, the code editor and the Layout Editor tool. An introduction to the architecture of Android is followed by an in-depth look at the design of Android applications and user interfaces using the Android Studio environment. Chapters are also included covering the Android Architecture Components including view models, lifecycle management, Room databases, app navigation, live data and data binding. More advanced topics such as intents are also covered, as are touch screen handling, gesture recognition and the playback and recording of audio. This edition of the book also covers printing, transitions, cloud-based file storage and foldable device support. The concepts of material design are also covered in detail, including the use of floating action buttons, Snackbars, tabbed interfaces, card views, navigation drawers and collapsing toolbars. In addition to covering general Android development techniques, the book also includes Google Play specific topics such as

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implementing maps using the Google Maps Android API, and submitting apps to the Google Play Developer Console. Other key features of Android Studio 4.0 and the Android SDK are also covered in detail including the Layout Editor, the ConstraintLayout and ConstraintSet classes, MotionLayout animation, constraint chains and barriers, view binding, direct reply notifications and multi-window support. Chapters also cover advanced features of Android Studio such as App Links, Dynamic Feature Modules, the Android Studio Profiler and Gradle build configuration. Assuming you already have some programming experience, are ready to download Android Studio and the Android SDK, have access to a Windows, Mac or Linux system and ideas for some apps to develop, you are ready to get started.

Kotlin Programming

Fully updated for Android Studio 3.0 and Android 8, the goal of this book is to teach the skills necessary to develop Android based applications using the Android Studio Integrated Development Environment (IDE), the Android 8 Software Development Kit (SDK) and the Kotlin programming language. Beginning with the basics, this book provides an outline of the steps necessary to set up an Android development and testing environment followed by an introduction to programming in Kotlin including data types, flow control, functions, lambdas and object-oriented programming. An overview of Android Studio is included covering areas such as

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tool windows, the code editor and the Layout Editor tool. An introduction to the architecture of Android is followed by an in-depth look at the design of Android applications and user interfaces using the Android Studio environment. More advanced topics such as database management, content providers and intents are also covered, as are touch screen handling, gesture recognition, camera access and the playback and recording of both video and audio. This edition of the book also covers printing, transitions and cloud-based file storage. The concepts of material design are also covered in detail, including the use of floating action buttons, Snackbars, tabbed interfaces, card views, navigation drawers and collapsing toolbars. In addition to covering general Android development techniques, the book also includes Google Play specific topics such as implementing maps using the Google Maps Android API, and submitting apps to the Google Play Developer Console. Other key features of Android Studio 3 and Android 8 are also covered in detail including the Layout Editor, the `ConstraintLayout` and `ConstraintSet` classes, constraint chains and barriers, direct reply notifications and multi-window support. Chapters also cover advanced features of Android Studio such as App Links, Instant Apps, the Android Studio Profiler and Gradle build configuration. Assuming you already have some programming experience, are ready to download Android Studio and the Android SDK, have access to a Windows, Mac or Linux system and ideas for some apps to develop, you are ready to get started.

Android Studio 4.0 Development Essentials - Kotlin Edition

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

Kotlin in Action

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

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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.

Android Apprentice

Build Android apps using the popular and efficient Android Studio 3 suite of tools, an integrated development environment (IDE) with which Android developers can now use the Kotlin programming language. With this book, you'll learn the latest and most productive tools in the Android tools ecosystem, ensuring quick Android app development and minimal effort on your part. Along the way, you'll use Android Studio to develop apps tier by tier through practical examples. These examples cover core Android topics such as Activities, Intents, BroadcastReceivers, Services and AsyncTask. Then, you'll learn how to publish your apps and sell them online and in the Google Play store. What You'll Learn Use Android Studio 3 to

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quickly and confidently build your first Android apps Build an Android user interface using activities and layouts, event handling, images, menus and the action bar Incorporate new elements including fragments Learn how data is persisted Use Kotlin to build apps Who This Book Is For Those who may be new to Android Studio 3 or Android Studio in general. You may or may not be new to Android development in general. Some prior experience with Java is also recommended.

Mastering Android Development with Kotlin

Google has officially announced Kotlin as a supported language to write Android Apps. These are amazing news for Android developers, which now have the ability to use a modern and powerful language to make their job easier and funnier. But this comes with other responsibilities. If you want to be a good candidate for new Android opportunities, Kotlin is becoming a new need most companies will ask for. So it's your time to start learning about it! And "Kotlin for Android Developers" is the best tool. Recommended by both Google and JetBrains, this book will guide through the process of learning all the new features that Java was missing, in an easy and fun way. You'll be creating an Android app from ground using Kotlin as the main language. The idea is to learn the language by example, instead of following a typical structure. I'll be stopping to explain the most interesting concepts and ideas about Kotlin, comparing it with Java 7. This way, you can see what the

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differences are and which parts of the language will help you speed up your work. This book is not meant to be a language reference, but a tool for Android developers to learn Kotlin and be able to continue with their own projects by themselves. I'll be solving many of the typical problems we have to face in our daily lives by making use of the language expressiveness and some other really interesting tools and libraries. The book is very practical, so it is recommended to follow the examples and the code in front of a computer and try everything it's suggested. You could, however, take a first read to get a broad idea and then dive into practice.

Head First Kotlin

There are many Android programming guides that give you the basics. This book goes beyond simple apps into many areas of Android development that you simply will not find in competing books. Whether you want to add home screen app widgets to your arsenal, or create more complex maps, integrate multimedia features like the camera, integrate tightly with other applications, or integrate scripting languages, this book has you covered. Moreover, this book has over 50 pages of Honeycomb-specific material, from dynamic fragments, to integrating navigation into the action bar, to creating list-based app widgets. It also has a chapter on using NFC, the wireless technology behind Google Wallet and related services. This book is one in CommonsWare's growing series of Android related

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titles, including "The Busy Coder's Guide to Android Development," "Android Programming Tutorials," and the upcoming "Tuning Android Applications." Table of Contents WebView, Inside and Out Crafting Your Own Views More Fun With ListViews Creating Drawables Home Screen App Widgets Interactive Maps Creating Custom Dialogs and Preferences Advanced Fragments and the Action Bar Animating Widgets Using the Camera Playing Media Handling System Events Advanced Service Patterns Using System Settings and Services Content Provider Theory Content Provider Implementation Patterns The Contacts ContentProvider Searching with SearchManager Introspection and Integration Tapjacking Working with SMS More on the Manifest Device Configuration Push Notifications with C2DM NFC The Role of Scripting Languages The Scripting Layer for Android JVM Scripting Languages Reusable Components Testing Production

Kotlin In-depth [Vol-II]

Build Android apps and learn the essentials of the popular Kotlin programming language and APIs. This book will teach you the key Kotlin skills and techniques important for creating your very own Android apps. Apart from introducing Kotlin programming, Learn Kotlin for Android Development stresses clean code principles and introduces object-oriented and functional programming as a starting point for developing Android apps. After reading and using this book, you'll have a foundation to take away and apply to your own Kotlin-based Android app

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development. You'll be able to write useful and efficient Kotlin-based apps for Android, using most of the features Kotlin as a language has to offer. What You Will Learn Build your first Kotlin app that runs on Android Work with Kotlin classes and objects for Android Use constructs, loops, decisions, and scopes Carry out operations on data Master data containers, arrays, and collections Handle exceptions and access external libraries Who This Book Is For Very little programming experience is required: no prior knowledge of Kotlin needed.

Learn Spring for Android Application Development

Familiarize yourself with all of Kotlin's features with this in-depth guide About This Book Get a thorough introduction to Kotlin Learn to use Java code alongside Kotlin without any hiccups Get a complete overview of null safety, Generics, and many more interesting features Who This Book Is For The book is for existing Java developers who want to learn more about an alternative JVM language. If you want to see what Kotlin has to offer, this book is ideal for you. What You Will Learn Use new features to write structured and readable object-oriented code Find out how to use lambdas and higher order functions to write clean, reusable, and simple code Write unit tests and integrate Kotlin tests with Java code in a transitioning code base Write real-world production code in Kotlin in the style of microservices Leverage Kotlin's extensions to the Java collections library Use destructuring expressions and find out how to write your own Write code that avoids null pointer

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errors and see how Java-nullable code can integrate with features in a Kotlin codebase Discover how to write functions in Kotlin, see the new features available, and extend existing libraries Learn to write an algebraic data types and figure out when they should be used In Detail Kotlin has been making waves ever since it was open sourced by JetBrains in 2011; it has been praised by developers across the world and is already being adopted by companies. This book provides a detailed introduction to Kotlin that shows you all its features and will enable you to write Kotlin code to production. We start with the basics: get you familiar with running Kotlin code, setting up, tools, and instructions that you can use to write basic programs. Next, we cover object oriented code: functions, lambdas, and properties – all while using Kotlin's new features. Then, we move on to null safety aspects and type parameterization. We show you how to destructure expressions and even write your own. We also take you through important topics like testing, concurrency, microservices, and a whole lot more. By the end of this book you will be able to compose different services and build your own applications. Style and approach An easy to follow guide that covers the full set of features in Kotlin programming.

Mastering Android Studio 3

A hands-on guide to Android programming with Spring MVC, Spring Boot, and Spring Security Key Features Build native Android applications with Spring for

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Android Explore Reactive programming, concurrency, and multithreading paradigms for building fast and efficient applications Write more expressive and robust code with Kotlin using its coroutines and other latest features Book Description As the new official language for Android, Kotlin is attracting new as well as existing Android developers. As most developers are still working with Java and want to switch to Kotlin, they find a combination of these two appealing. This book addresses this interest by bringing together Spring, a widely used Java SE framework for building enterprise-grade applications, and Kotlin. Learn Spring for Android Application Development will guide you in leveraging some of the powerful modules of the Spring Framework to build lightweight and robust Android apps using Kotlin. You will work with various modules, such as Spring AOP, Dependency Injection, and Inversion of Control, to develop applications with better dependency management. You'll also explore other modules of the Spring Framework, such as Spring MVC, Spring Boot, and Spring Security. Each chapter has practice exercises at the end for you to assess your learning. By the end of the book, you will be fully equipped to develop Android applications with Spring technologies. What you will learn Get to grips with the basics of the Spring Framework Write web applications using the Spring Framework with Kotlin Develop Android apps with Kotlin Connect a RESTful web service with your app using Retrofit Understand JDBC, JPA, MySQL for Spring and SQLite Room for Android Explore Spring Security fundamentals, Basic Authentication, and OAuth2 Delve into Concurrency and Reactive programming using Kotlin Develop testable applications with Spring and Android

Who this book is for If you're an aspiring Android developer or an existing developer who wants to learn how to use Spring to build robust Android applications in Kotlin, this book is for you. Though not necessary, basic knowledge of Spring will assist with understanding key concepts covered in this book.

Android Development with Kotlin

Kotlin is a new programming language targeting the Java platform. It offers on expressiveness and safety without compromising simplicity, seamless interoperability with existing Java code, and great tooling support. Because Kotlin generates regular Java bytecode and works together with existing Java libraries and frameworks, it can be used almost everywhere where Java is used today - for server-side development, Android apps, and much more. Kotlin in Action takes experienced Java developers from the language basics all the way through building applications to run on the JVM and Android devices. Written by core developers of Kotlin, this example-rich book begins by teaching the basic syntax of the Kotlin language. Then readers learn how to use features that let them build reusable abstractions, higher-level functions, libraries, and even entire domain specific languages. Finally, the book focuses on details of applying Kotlin in real-world projects, such as build system integration, Android support and concurrent programming. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Kotlin for Android Developers

Take advantage of Kotlin's concurrency primitives to write efficient multithreaded applications Key Features Learn Kotlin's unique approach to multithreading Work through practical examples that will help you write concurrent non-blocking code Improve the overall execution speed in multiprocessor and multicore systems Book Description The primary requirements of modern-day applications are scalability, speed, and making the most use of hardware. Kotlin meets these requirements with its immense support for concurrency. Many concurrent primitives of Kotlin, such as channels and suspending functions, are designed to be non-blocking and efficient. This allows for new approaches to concurrency and creates unique challenges for the design and implementation of concurrent code. Learning Concurrency in Kotlin addresses those challenges with real-life examples and exercises that take advantage of Kotlin's primitives. Beginning with an introduction to Kotlin's coroutines, you will learn how to write concurrent code and understand the fundamental concepts needed to be able to write multithreaded software in Kotlin. You'll explore how to communicate between and synchronize your threads and coroutines to write asynchronous applications that are collaborative. You'll also learn how to handle errors and exceptions, as well as how to leverage multi-core processing. In addition to this, you'll delve into how coroutines work internally, allowing you to see the bigger picture. Throughout the book you'll build an Android application - an RSS reader - designed and implemented according to the different

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topics covered in the book What you will learn Understand Kotlin's approach to concurrency Implement sequential and asynchronous suspending functions Create suspending data sources that are resumed on demand Explore the best practices for error handling Use channels to communicate between coroutines Uncover how coroutines work under the hood Who this book is for If you're a Kotlin or Android developer interested in learning how to program concurrently to enhance the performance of your applications, this is the book for you.

Kotlin Cookbook

Fully updated for Android Studio 2, the goal of this book is to teach the skills necessary to develop Android based applications using the Android Studio Integrated Development Environment (IDE) and the Android 6 Software Development Kit (SDK). Beginning with the basics, this book provides an outline of the steps necessary to set up an Android development and testing environment. An overview of Android Studio is included covering areas such as tool windows, the code editor and the Designer tool. An introduction to the architecture of Android is followed by an in-depth look at the design of Android applications and user interfaces using the Android Studio environment. More advanced topics such as database management, content providers and intents are also covered, as are touch screen handling, gesture recognition, camera access and the playback and recording of both video and audio. This edition of the book also covers printing,

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transitions and cloud-based file storage. The concepts of material design are also covered in detail, including the use of floating action buttons, Snackbars, tabbed interfaces, card views, navigation drawers and collapsing toolbars. In addition to covering general Android development techniques, the book also includes Google Play specific topics such as implementing maps using the Google Maps Android API, in-app billing and submitting apps to the Google Play Developer Console. The key new features of Android Studio 2, Instant Run and the new AVD emulator environment, are also covered in detail. Chapters also cover advanced features of Android Studio such as Gradle build configuration and the implementation of build variants to target multiple Android device types from a single project code base. Assuming you already have some Java programming experience, are ready to download Android Studio and the Android SDK, have access to a Windows, Mac or Linux system and ideas for some apps to develop, you are ready to get started.

Kotlin Apprentice

Learn how to program with Kotlin! Kotlin is the exciting modern language from JetBrains, creators of IntelliJ IDEA, the basis of many popular IDEs such as Android Studio and PyCharm. Since the adoption of Kotlin by Google as an official language for Android, the momentum behind Kotlin has gone off the charts. In this book, you'll start with the basics of programming using Kotlin. You'll next learn everything from collections and lambdas to classes and interfaces, and then move

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on to more advanced topics like functional programming and coroutines. Kotlin supports many platforms, including Android, JavaScript, the JVM, and someday even iOS. By reading this book, you'll be ready to use Kotlin on any and all of these platforms. Who This Book Is For This book is for complete beginners to Kotlin. No prior programming experience is necessary! Topics Covered in Kotlin Apprentice Kotlin Development Environment: See how to setup a development environment for Kotlin using IntelliJ IDEA. Numbers and Strings: These are the basic kinds of data in any app-learn how to use them in Kotlin. Making Decisions: Your code doesn't always run straight through-learn how to use conditions and loops to control program flow. Functions and Lambdas: Group your code together into reusable chunks to run and pass around. Collection Types: Discover the many ways Kotlin offers to store and organize data into collections. Building Your Own Types: Learn how to model elements in your app using classes, objects, interfaces, and enumerations. Exceptions: Make your code more robust and flexible by signaling and handling exception conditions. Functional Programming: Learn how to use Kotlin in a functional style and how this can make your code clearer and more efficient. Coroutines: Asynchronous programming can be a complex topic on any platform, but Kotlin gives you a clear and concise approach with coroutines. Kotlin Platforms and Scripting: Learn about how Kotlin can be used on multiple platforms and see its use as a scripting language. One thing you can count on: after reading this book, you'll be prepared to take advantage of Kotlin wherever you choose to use it!

Clean Architecture

Build Android apps using the popular and efficient Android Studio 3 suite of tools, an integrated development environment (IDE) with which Android developers can now use the Kotlin programming language. With this book, you'll learn the latest and most productive tools in the Android tools ecosystem, ensuring quick Android app development and minimal effort on your part. Along the way, you'll use Android Studio to develop apps tier by tier through practical examples. These examples cover core Android topics such as Activities, Intents, BroadcastReceivers, Services and AsyncTask. Then, you'll learn how to publish your apps and sell them online and in the Google Play store. What You'll Learn Use Android Studio 3 to quickly and confidently build your first Android apps Build an Android user interface using activities and layouts, event handling, images, menus and the action bar Incorporate new elements including fragments Learn how data is persisted Use Kotlin to build apps Who This Book Is For Those who may be new to Android Studio 3 or Android Studio in general. You may or may not be new to Android development in general. Some prior experience with Java is also recommended.

Android 9 Development Cookbook

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Discover Android programming and web development by understanding the concepts of Kotlin Programming Key Features Practical solutions to your common programming problems with Kotlin 1.1 Leverage the functional power of Kotlin to ease your Android application development Learn to use Java code in conjunction with Kotlin Book Description The Android team has announced first-class support for Kotlin 1.1. This acts as an added boost to the language and more and more developers are now looking at Kotlin for their application development. This recipe-based book will be your guide to learning the Kotlin programming language. The recipes in this book build from simple language concepts to more complex applications of the language. After the fundamentals of the language, you will learn how to apply the object-oriented programming features of Kotlin 1.1. Programming with Lambdas will show you how to use the functional power of Kotlin. This book has recipes that will get you started with Android programming with Kotlin 1.1, providing quick solutions to common problems encountered during Android app development. You will also be taken through recipes that will teach you microservice and concurrent programming with Kotlin. Going forward, you will learn to test and secure your applications with Kotlin. Finally, this book supplies recipes that will help you migrate your Java code to Kotlin and will help ensure that it's interoperable with Java. What you will learn Understand the basics and object-oriented concepts of Kotlin Programming Explore the full potential of collection frameworks in Kotlin Work with SQLite databases in Android, make network calls, and fetch data over a network Use Kotlin's Anko library for efficient and quick

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Android development Uncover some of the best features of Kotlin: Lambdas and Delegates Set up web service development environments, write servlets, and build RESTful services with Kotlin Learn how to write unit tests, integration tests, and instrumentation/acceptance tests. Who this book is for This book will appeal to Kotlin developers keen to find solutions for their common programming problems. Java programming knowledge would be an added advantage.

Programming Kotlin

Use Kotlin to build Android apps, web applications, and more—while you learn the nuances of this popular language. With this unique cookbook, developers will learn how to apply this Java-based language to their own projects. Both experienced programmers and those new to Kotlin will benefit from the practical recipes in this book. Author Ken Kousen (Modern Java Recipes) shows you how to solve problems with Kotlin by concentrating on your own use cases rather than on basic syntax. You provide the context and this book supplies the answers. Already big in Android development, Kotlin can be used anywhere Java is applied, as well as for iOS development, native applications, JavaScript generation, and more. Jump in and build meaningful projects with Kotlin today. Apply functional programming concepts, including lambdas, sequences, and concurrency See how to use delegates, late initialization, and scope functions Explore Java interoperability and access Java libraries using Kotlin Add your own extension functions Use helpful

libraries such as JUnit 5 Get practical advice for working with specific frameworks, like Android and Spring

Android Development with Kotlin

Programmers don't just use Kotlin, they love it. Even Google has adopted it as a first-class language for Android development. With Kotlin, you can intermix imperative, functional, and object-oriented styles of programming and benefit from the approach that's most suitable for the problem at hand. Learn to use the many features of this highly concise, fluent, elegant, and expressive statically typed language with easy-to-understand examples. Learn to write easy-to-maintain, high-performing JVM and Android applications, create DSLs, program asynchrony, and much more. Kotlin is a highly concise, elegant, fluent, and expressive statically typed multi-paradigm language. It is one of the few languages that compiles down to both Java bytecode and JavaScript. You can use it to build server-side, front-end, and Android applications. With Kotlin, you need less code to accomplish your tasks, while keeping the code type-safe and less prone to error. If you want to learn the essentials of Kotlin, from the fundamentals to more advanced concepts, you've picked the right book. Fire up your favorite IDE and practice hundreds of examples and exercises to sharpen your Kotlin skills. Learn to build standalone small programs to run as scripts, create type safe code, and then carry that knowledge forward to create fully object-oriented and functional style code that's easier to

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extend. Learn how to program with elegance but without compromising efficiency or performance, and how to use metaprogramming to build highly expressive code and create internal DSLs that exploit the fluency of the language. Explore coroutines, program asynchrony, run automated tests, and intermix Kotlin with Java in your enterprise applications. This book will help you master one of the few languages that you can use for the entire full stack - from the server to mobile devices - to create performant, concise, and easy to maintain applications. What You Need: To try out the examples in the book you'll need a computer with Kotlin SDK, JDK, and a text editor or a Kotlin IDE installed in it.

Kotlin for Android App Development

Learn how to make Android development much faster using a variety of Kotlin features, from basics to advanced, to write better quality code. About This Book Leverage specific features of Kotlin to ease Android application development Write code based on both object oriented and functional programming to build robust applications Filled with various practical examples so you can easily apply your knowledge to real world scenarios Identify the improved way of dealing with common Java patterns Who This Book Is For This book is for developers who have a basic understanding of Java language and have 6-12 months of experience with Android development and developers who feel comfortable with OOP concepts. What You Will Learn Run a Kotlin application and understand the integration with

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Android Studio Incorporate Kotlin into new/existing Android Java based project Learn about Kotlin type system to deal with null safety and immutability Define various types of classes and deal with properties Define collections and transform them in functional way Define extensions, new behaviours to existing libraries and Android framework classes Use generic type variance modifiers to define subtyping relationship between generic types Build a sample application In Detail Nowadays, improved application development does not just mean building better performing applications. It has become crucial to find improved ways of writing code. Kotlin is a language that helps developers build amazing Android applications easily and effectively. This book discusses Kotlin features in context of Android development. It demonstrates how common examples that are typical for Android development, can be simplified using Kotlin. It also shows all the benefits, improvements and new possibilities provided by this language. The book is divided in three modules that show the power of Kotlin and teach you how to use it properly. Each module present features in different levels of advancement. The first module covers Kotlin basics. This module will lay a firm foundation for the rest of the chapters so you are able to read and understand most of the Kotlin code. The next module dives deeper into the building blocks of Kotlin, such as functions, classes, and function types. You will learn how Kotlin brings many improvements to the table by improving common Java concepts and decreasing code verbosity. The last module presents features that are not present in Java. You will learn how certain tasks can be achieved in simpler ways thanks to Kotlin. Through the book, you will learn how

to use Kotlin for Android development. You will get to know and understand most important Kotlin features, and how they can be used. You will be ready to start your own adventure with Android development with Kotlin.

The Busy Coder's Guide to Advanced Android Development

Master the concise and expressive power of a pragmatic multi-paradigm language for JVM, Android and beyond DESCRIPTION The purpose of this book is to guide a reader through the capabilities of the Kotlin language and give examples of using it for development of various applications be it desktop, mobile or Web. Although our primary focus is on the JVM and Android, the knowledge we're sharing here to various extents applies to other Kotlin-supported platforms such as JavaScript, native and even multi-platform applications. The book starts with an introduction to language and its ecosystem that will give you an understanding of the key ideas behind Kotlin design, introduce you to the Kotlin tooling and present you the basic language syntax and constructs. In the next chapters we'll get to know the multi-paradigm nature of Kotlin which allows you to create powerful abstractions by combining various aspects of functional and object-oriented programming. We'll talk about using common Kotlin APIs such as the standard library, reflection, and coroutine-based concurrency as well as the means for creating your own flexible APIs based on domain-specific languages. In the concluding chapters, we'll give examples of using Kotlin for more specialized tasks such as testing, building

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Android applications, Web development and creating microservices. KEY FEATURES

- Language fundamentals - Object-oriented and functional programming with Kotlin
- Kotlin standard library - Building domain-specific languages - Using Kotlin for Web development - Kotlin for Android platform - Coroutine-based concurrency

WHAT WILL YOU LEARN By the end of the book, you'll obtain a thorough knowledge of all basic aspects of Kotlin programming. You'll be able to create a flexible and reusable code by taking advantage of object-oriented and functional features, use Kotlin standard library, compose your own domain-specific languages, write asynchronous code using Kotlin coroutines library as well. You'll also have a basic understanding of using Kotlin for writing test code, web applications and Android development. This knowledge will also give you a solid foundation for deeper learning of related development platforms, tools and frameworks. WHO THIS BOOK IS FOR The book is primarily aimed at developers familiar with Java and JVM and willing to get a firm understanding of Kotlin while having little to no experience in that language. Discussion of various language features will be accompanied, if deemed necessary, by comparisons with their Java's analogs which should simplify Java-to-Kotlin transition. Most of the material, however, is rather Java-agnostic and should be beneficial even without prior Java knowledge. In general, experience in object-oriented or functional paradigm is a plus, but not required.

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Kotlin Standard Library Cookbook

Make the most of Kotlin by leveraging design patterns and best practices to build scalable and high performing apps

Key Features

- Understand traditional GOF design patterns to apply generic solutions
- Shift from OOP to FP; covering reactive and concurrent patterns in a step-by-step manner
- Choose the best microservices architecture and MVC for your development environment

Book Description

Design patterns enable you as a developer to speed up the development process by providing you with proven development paradigms. Reusing design patterns helps prevent complex issues that can cause major problems, improves your code base, promotes code reuse, and makes an architecture more robust. The mission of this book is to ease the adoption of design patterns in Kotlin and provide good practices for programmers. The book begins by showing you the practical aspects of smarter coding in Kotlin, explaining the basic Kotlin syntax and the impact of design patterns. From there, the book provides an in-depth explanation of the classical design patterns of creational, structural, and behavioral families, before heading into functional programming. It then takes you through reactive and concurrent patterns, teaching you about using streams, threads, and coroutines to write better code along the way. By the end of the book, you will be able to efficiently address common problems faced while developing applications and be comfortable working on scalable and maintainable projects of any size. What you will learn

Get to grips with Kotlin principles, including its strengths and weaknesses

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Understand classical design patterns in Kotlin Explore functional programming using built-in features of Kotlin Solve real-world problems using reactive and concurrent design patterns Use threads and coroutines to simplify concurrent code flow Understand antipatterns to write clean Kotlin code, avoiding common pitfalls Learn about the design considerations necessary while choosing between architectures Who this book is for This book is for developers who would like to master design patterns with Kotlin to build efficient and scalable applications. Basic Java or Kotlin programming knowledge is assumed

Learning Concurrency in Kotlin

Build feature-rich, reliable Android Pie apps with the help of more than 100 proven industry standard recipes and strategies. Key Features Uncover the latest features in Android 9 Pie to make your applications stand out Develop Android Pie applications with the latest mobile technologies, from set up to security Get up-to-speed with Android Studio 3 and its impressive new features Book Description The Android OS has the largest installation base of any operating system in the world. There has never been a better time to learn Android development to write your own applications, or to make your own contributions to the open source community! With this extensively updated cookbook, you'll find solutions for working with the user interfaces, multitouch gestures, location awareness, web services, and device features such as the phone, camera, and accelerometer. You

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also get useful steps on packaging your app for the Android Market. Each recipe provides a clear solution and sample code you can use in your project from the outset. Whether you are writing your first app or your hundredth, this is a book that you will come back to time and time again, with its many tips and tricks on the rich features of Android Pie. What you will learn Develop applications using the latest Android framework while maintaining backward-compatibility with the support library Create engaging applications using knowledge gained from recipes on graphics, animations, and multimedia Work through succinct steps on specifics that will help you complete your project faster Add location awareness to your own app with examples using the latest Google Play services API Utilize Google Speech Recognition APIs for your app Who this book is for If you are new to Android development and want to take a hands-on approach to learning the framework, or if you are an experienced developer in need of clear working code to solve the many challenges in Android development, you will benefit from this book. Either way, this is a resource you'll want to keep on your desk as a quick reference to help you solve new problems as you tackle more challenging projects.

Reactive Programming in Kotlin

Learn programming in Kotlin including data types, flow control, lambdas, object-oriented, and functional programming while building 3 Android Apps Key Features Experience the gentle learning curve of Kotlin as you develop your own

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applications Learn how to integrate Kotlin into Android Studio 3 and use it in your projects Build real-world applications such as Googly Eyes and games using Kotlin Book Description Today Kotlin is an official programming language for Android development and is widely adopted. Kotlin is expressive, concise, and powerful. It also ensures seamless interoperability with existing Android languages like JAVA and C++, which means that it's even easier for developers to use. This book adopts a project-style approach, where we focus on teaching Android development by building three different Android Application: a Tic-Tac-Toe application, a location- based alarm and a To-Do list application. The book begins by giving you a strong grasp of the Kotlin language and its APIs as a preliminary to building stunning applications for Android. You'll learn to set up an environment and as you progress through the chapters and the building of the different applications, the difficulty level will steadily grow. The book also introduces you to the Android Studio IDE, which plays an integral role in Android Development. It covers Kotlin's basic programming concepts such as functions, lambdas, properties, object-oriented code, safety aspects and type parameterization, testing, and concurrency, and helps you write Kotlin code to production. Finally, you'll be taken through the process of releasing your app on the Google Play Store. You will also be introduced to other app distribution channels such as Amazon App Store. As a bonus chapter, you will also learn how to use the Google Faces API to detect faces and add fun functionalities. What you will learn Learn the basics of using the Android Studio IDE and a number of basic programming concepts in Kotlin Discover Android

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development by building Android apps with Kotlin Uncover some amazing features of Kotlin that give it the upper hand over Java Learn about Kotlin interoperability with Java Integrate Crashlytics for crash reporting and beta testing. Use Google Location services and understand various APIs available for getting user location updates Understand the principles of networking and communication. Learn about the usage of third-party libraries for loading of data Automate your build process with continuous integration tools Who this book is for If you are completely new to Kotlin or the Android platform and need to publish Android applications for fun or for business purposes, but you have no clue where to start, then this book is for you. This book is also for advanced Android developers who want to learn to use Kotlin instead of/alongside Java for Android development, although having some programming experience would be helpful.

Android Studio Cookbook

Master Android development using a variety of Kotlin features About This Book Leverage specific features of Kotlin to ease Android application development An illustrative guide that will help you write code based Kotlin language to build robust Android applications Filled with various practical examples build amazing Android project using Kotlin so you can easily apply your knowledge to real world scenarios Who This Book Is For The book is for developers who want to build amazing Android applications in an easy and effective way. Basic knowledge of Kotlin is

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assumed, but you do not need any familiarity with Android development. What You Will Learn Understand the basics of Android development with Kotlin Get to know the key concepts in Android development See how to create modern mobile applications for the Android platform Adjust your application's look and feel Know how to persist and share application database Work with Services and other concurrency mechanisms Write effective tests Migrate an existing Java-based project to Kotlin In Detail Kotlin is a programming language intended to be a better Java, and it's designed to be usable and readable across large teams with different levels of knowledge. As a language, it helps developers build amazing Android applications in an easy and effective way. This book begins by giving you a strong grasp of Kotlin's features in the context of Android development and its APIs. Moving on, you'll take steps toward building stunning applications for Android. The book will show you how to set up the environment, and the difficulty level will grow steadily with the applications covered in the upcoming chapters. Later on, the book will introduce you to the Android Studio IDE, which plays an integral role in Android development. We'll use Kotlin's basic programming concepts such as functions, lambdas, properties, object-oriented code, safety aspects, type parameterization, testing, and concurrency, which will guide you through writing Kotlin code into production. We'll also show you how to integrate Kotlin into any existing Android project. Style and approach In this book, you'll master Android development using Kotlin through real application examples. We'll introduce you to basic Android concepts and offer guidance from the first steps to the final project. In each

chapter, we'll develop one important application functionality as a development milestone. As we progress, you'll become more experienced in Android and our application will progress toward a real-world product. Finally, when we complete the application's development, we'll write proper tests to ensure it's production ready.

Android Studio 4.1 Development Essentials - Kotlin Edition

Android Programming: The Big Nerd Ranch Guide is an introductory Android book for programmers with Java experience. Based on Big Nerd Ranch's popular Android Bootcamp course, this guide will lead you through the wilderness using hands-on example apps combined with clear explanations of key concepts and APIs. This book focuses on practical techniques for developing apps compatible with Android 4.1 (Jelly Bean) and up, including coverage of Lollipop and material design. Write and run code every step of the way, creating apps that integrate with other Android apps, download and display pictures from the web, play sounds, and more. Each chapter and app has been designed and tested to provide the knowledge and experience you need to get started in Android development. Big Nerd Ranch specializes in developing and designing innovative applications for clients around the world. Our experts teach others through our books, bootcamps, and onsite training. Whether it's Android, iOS, Ruby and Ruby on Rails, Cocoa, Mac OS X, JavaScript, HTML5 or UX/UI, we've got you covered. The Android team is constantly

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improving and updating Android Studio and other tools. As a result, some of the instructions we provide in the book are no longer correct. You can find an addendum addressing breaking changes at: <https://github.com/bignerdranch/AndroidCourseResources/raw/master/2ndEdition/Errata/2eAddendum.pdf>.

Learn Android Studio 3 with Kotlin

Enhance your Kotlin programming skills by building 3 real-world applications Key Features Build three full-fledged, engaging applications from scratch and learn to deploy them Enhance your app development and programming activities with Kotlin's powerful and intuitive tools and utilities. Experience the gentle learning curve, expressiveness, and intuitiveness of Kotlin, as you develop your own applications Book Description Kotlin greatly reduces the verbosity of source code. With Google having announced their support for Kotlin as a first-class language for writing Android apps, now's the time learn how to create apps from scratch with Kotlin Kotlin Programming By Example takes you through the building blocks of Kotlin, such as functions and classes. You'll explore various features of Kotlin by building three applications of varying complexity. For a quick start to Android development, we look at building a classic game, Tetris, and elaborate on object-oriented programming in Kotlin. Our next application will be a messenger app, a level up in terms of complexity. Before moving onto the third app, we take a look at data persistent methods, helping us learn about the storage and retrieval of

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useful applications. Our final app is a place reviewer: a web application that will make use of the Google Maps API and Place Picker. By the end of this book, you will have gained experience of of creating and deploying Android applications using Kotlin. What you will learn Learn the building blocks of the Kotlin programming language Develop powerful RESTful microservices for Android applications Create reactive Android applications efficiently Implement an MVC architecture pattern and dependency management using Kotlin Centralize, transform, and stash data with Logstash Secure applications using Spring Security Deploy Kotlin microservices to AWS and Android applications to the Play Store Who this book is for This book is for those who are new to Kotlin or are familiar with the basics, having dabbled with Java until now. Basic programming knowledge is mandatory.

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