

Get Started In Android Studio Firebase

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Mastering Firebase for Android Development - Ashok Kumar S 2018-06-29

Develop a fully functional and dynamic Android application using the latest features of Firebase Key Features Explore all the latest tools in

Firebase—Firebase Firestore, ML-Kit, and Firebase Predictions Master

Firebase cloud messaging, remote configuration, and work with a real-time database Make your app a global success with the help of Google

Analytics and AdMob Book Description Firebase offers a wide spectrum of tools and services to help you develop high-quality apps in a short period

of time. It also allows you to build web and mobile apps quickly without

managing the infrastructure. Mastering Firebase for Android Development

takes you through the complete toolchain of Firebase, including the latest

tools announced in Google IO 2018 such as Firebase ML-Kit, FireStore,

and Firebase Predictions. The book begins by teaching you to configure

your development environment with Firebase and set up a different

structure for a Firebase real-time database. As you make your way

through the chapters, you'll establish the authentication feature in Android

and explore email and phone authentication for managing the on-boarding

of users. You'll be taken through topics on Firebase crash reporting,

Firebase functions, Firebase Cloud, Firebase Hosting, and Cloud

Messaging for push notifications and explore other key areas in depth. In

the concluding chapters, you will learn to use Firebase Test Lab to test

your application before using Firebase Performance Monitoring to trace

performance setbacks. By the end of the book, you will be well equipped

with the Firebase ecosystem, which will help you find solutions to your

common application development challenges. What you will learn Learn

about Firebase push notifications and write backend functionalities Identify

the root cause of an application crash and diagnose and fix bugs Store

different Multipurpose Internet MailExtension(MIME) type files Explore web

hosting and connect the Firebase functions to the host website Send push

notifications and understand the deep integration of analytics tools and

cohorts Market and monetize your application using Firebase Adwords and

Admob Build a secure authentication framework while enhancing the sign-

in and on-boarding experience for end users Who this book is for

Mastering Firebase for Android Development is for individuals looking to

extend their skills with Firebase and build faster, scalable, and real-time

mobile applications. Basic understanding of Android programming is

necessary. In all, this in-depth guide is an accessible pathway to mastering Firebase.

Taking Flutter to the Web - Damodar Lohani 2022-10-28

A web developer's guide to using Flutter for building responsive and

adaptive web UIs using mobile solutions Key Features Build a native,

mobile-like experience for your web apps using Flutter Explore a

systematic and synchronized learning path for web developers to learn

Flutter Design an MVVM structure for scalability and performance with this

practical guide Book Description Using a shared codebase in addition to

an extensive range of tools in the Flutter ecosystem optimized for

browsers, the Flutter framework has expanded to enable you to bring your

mobile apps to the web. You'll find out how web developers can leverage

the Flutter framework for web apps with this hands-on guide. Taking

Flutter to the Web will help you learn all about the Flutter ecosystem by

covering the tools and project structure that allows you to easily integrate

Flutter into your web stack. You'll understand the concepts of cross-

platform UI development and how they can be applied to web platforms.

As you explore Flutter on the web, you'll become well-versed with using

Flutter as an alternative UI platform for building adaptive and responsive

designs for web apps. By the end of this Flutter book, you'll have built and

deployed a complete Flutter app for the web and have a roadmap ready to

target the web for your existing Flutter mobile apps. What you will learn

Understand the concepts necessary for designing, building, and deploying

a Flutter web app Get the hang of Flutter internals to make the most of the

framework Build complete web applications with Flutter from architecture

to deployment Automate UI design for your web apps using Flutter Explore

Flutter's integration with Appwrite for backend development Discover

advanced concepts in frontend web development, such as state

management and PWA Who this book is for This book is for Flutter mobile

developers and Dart programmers who want to consolidate their Flutter

knowledge and use it to build responsive web applications.

Lean Mobile App Development - Mike van Drongelen 2017-11-28

Develop lean iOS and Android apps using industry standard techniques

and lean development practices. About This Book Build ready-to-deploy

apps with less iterations and shorter development times Adopt the lean

startup methodologies to develop iOS and Android apps that shine in the

App Store This hands-on guide puts continuous innovation into practice to develop successful mobile apps Who This Book Is For This book is for developers, CTOs, and architects working for a startup or another kind of lean startup environment, such as start-up within a cooperation. It is ideal for any iOS and Android developer who wants to build successful mobile apps by adopting the lean startup methodology. What You Will Learn Apply the lean startup methodology to real Android and iOS development Define what your hypotheses are by creating an Minimal Viable Product Validate your idea against the Business Model Canvas Gather feedback through statistics and by getting user comments, learn from it, and adapt your app accordingly Develop skills and devise strategies to build versatile and flexible apps that meet changing business requirements Investigate the possibilities when you need to pivot your start-up idea whether in a startup or an established business. Create a successful app and get tips on how to boost conversion and how to optimize the on boarding process. In Detail Lean is the ultimate methodology for creating a startup that succeeds. Sounds great from a theoretical point of view, but what does that mean for you as an a technical co-founder or mobile developer? By applying the Lean Start-up methodology to your mobile App development, it will become so much easier to build apps that take Google Play or the App Store by storm. This book shows you how to bring together smarter business processes with technical know-how. It makes no sense to develop a brilliant app for six months or longer only to find out later that nobody is interested in it. Build a Minimum Viable Product (MVP) first. Validate your hypotheses early and often. Discover effective product development strategies that let you put Facebook's famous axiom "move fast and break things" into practice. A great app without visibility and marketing clout is nothing, so use this book to market your app, making use of effective metrics that help you track and iterate all aspects of project performance. Style and approach This book takes a hands-on approach to developing apps through the Lean Start-up Methodology. Following a 50% business and 50% tech approach, this book is filled with practical examples and real-world experiments.

Expert Android Programming - Prajyot Mainkar 2017-09-29

Become a pro with the latest Android SDK and create state of the art applications for Android. About This Book Dive deep into Android development with practical hands on examples to help you in each stage. Develop smart professional grade apps for the latest Android N version and become a pro android developer. Unclog your development highway by utilising the industry standard best practices techniques. Who This Book Is For This book is for mobile developers having some expertise in building android apps and who wish to now take a leap into building complex app such as Zomato, using latest Android N power of Google. What You Will Learn Building UI/UX following best industry practices Development of Zomato Clone Measure and improve app performance Improving app using test mechanisms Bringing the app live on the play

store In Detail Android O brings a number of important changes for the users as well as the developers. If you want to create smart android applications which are fast, lightweight and also highly efficient then this is the book that will solve all your problems. You will create a complex enterprise grade app in this book. You will get a quick refresher of the latest android SDK and how to configure your development environment. Then you will move onto creating app layouts, component and module building, creating smart and efficient UIs. The most important part of a modern day app is how real time they are. With this book, you will create a smooth back-end for your app, ensure dynamic and real time communication between different app layers. As we move on, you will learn to leverage the different Android APIs and create an efficient SQLite data layer for your apps. You will implement effective testing techniques to make your app reliable and robust and finally you will learn to deploy it efficiently. The multiple stages of android development will also be simplified by giving you an industry standard set of best practices. Style and approach This book will have a dedicated practical tutorial style approach with focus on professional & enterprise grade android app development. The examples in each chapter will be modular and will also help you to create a complete fully featured android app by the end of the book.

The Definitive Guide to Firebase - Laurence Moroney 2017-11-10

Plan how to build a better app, grow it into a business, and earn money from your hard work using Firebase. In this book, Laurence Moroney, Staff Developer Advocate at Google, takes you through each of the 15 Firebase technologies, showing you how to use them with concrete examples. You'll see how to build cross-platform apps with the three pillars of the Firebase platform: technologies to help you develop apps with a real-time database, remote configuration, cloud messaging, and more; grow your apps with user sharing, search integration, analytics, and more; and earn from your apps with in-app advertising. After reading *The Definitive Guide to Firebase*, you'll come away empowered to make the most of this technology that helps you build better cross-platform mobile apps using either native Android or JavaScript-based web apps and effectively deploy them in a cloud environment. What You'll Learn Use the real-time database for a codeless middleware that gives online and offline data for syncing across your users' devices Master Firebase Cloud Messaging, a technology that delivers to connected devices in less than 500ms Grow your app organically with technologies such App Indexing, App Invites, and Dynamic Links Understand problems when they arise with crash reporting Fix user problems without direct access to users' devices Tie it all together with analytics that give you great intelligence about how users interact with your app Who This Book Is For Experienced Android, mobile app developers new to Firebase. This book is also for experienced web developers looking to build and deploy web apps for smartphones and tablets, too, who may be new or less experienced with mobile

programming.

Practical Android - Mark Wickham 2018-01-02

Choose the best approach for your app and implement your solution quickly by leveraging complete projects. This book is a collection of practical projects that use advanced Android techniques and approaches, written by Android instructor Mark Wickham. Mark has taught a series of popular classes at Android development conferences since 2013 and Practical Android covers content from his most popular classes. Each chapter covers an important concept and provides you with a deep dive into the implementation. The book is an ideal resource for developers who have some development experience, but may not be Android or mobile development experts. Each chapter includes at least one complete project to show the reader how to implement the concepts. What You'll Learn Apply JSON in Android Work with connectivity, which covers all aspects of HTTP in Android Determine if your server is reachable Use lazy loading, a common pattern for most apps and which is not trivial to implement Take advantage of remote crashlogs to implement a solution for your apps so you know when they crash and can provide timely fixes Implement push messaging to take your app to the next level Develop with Android Audio, which provides complete coverage of all the Android audio APIs and synthesis engines Who This Book Is For Those with prior experience with using Android and have a strong Java background.

Android Studio 3.0 Development Essentials - Android 8 Edition - Neil Smyth 2017-11-25

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 Java programming language. 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 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 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.

DevOps Tools for Java Developers - Stephen Chin 2022-04-15

With the rise of DevOps, low-cost cloud computing, and container technologies, the way Java developers approach development today has changed dramatically. This practical guide helps you take advantage of microservices, serverless, and cloud native technologies using the latest DevOps techniques to simplify your build process and create hyperproductive teams. Stephen Chin, Melissa McKay, Ixchel Ruiz, and Baruch Sadogursky from JFrog help you evaluate an array of options. The list includes source control with Git, build declaration with Maven and Gradle, CI/CD with CircleCI, package management with Artifactory, containerization with Docker and Kubernetes, and much more. Whether you're building applications with Jakarta EE, Spring Boot, Dropwizard, MicroProfile, Micronaut, or Quarkus, this comprehensive guide has you covered. Explore software lifecycle best practices Use DevSecOps methodologies to facilitate software development and delivery Understand the business value of DevSecOps best practices Manage and secure software dependencies Develop and deploy applications using containers and cloud native technologies Manage and administrate source control repositories and development processes Use automation to set up and administer build pipelines Identify common deployment patterns and antipatterns Maintain and monitor software after deployment

Build Mobile Apps with Ionic 4 and Firebase - Fu Cheng 2018-11-02

Leverage your existing web development skills to learn the whole cycle of hybrid mobile app development. This edition is fully updated with the changes in Ionic 4, including Stencil, a new framework based on the web components standard. It explains Ionic and Firebase in detail, including how to create hybrid mobile apps using using React and Vue, and run those apps in an internal browser using a wrapper created by Apache Cordova. Build Mobile Apps with Ionic 4 and Firebase shows you how to focus on developing front-end code, without needing to manage any back-end code or servers. You'll learn in the context of building a Hacker News client app, which can view top stories in Hacker News, view comments of a story, and add stories to favorites. Explore how Ionic 4 uses Angular as the JavaScript framework to easily develop apps using an interface similar to native apps, and how to access Firebase, a real-time database, in web apps using JavaScript. What You'll Learn Create content-based Ionic mobile apps Work with new Ionic 4 components like gesture, text, and keyboard controller Manage your apps with RxJS & Redux Who This Book

Is For Front-end developers and mobile app developers

Android Espresso Revealed - Denys Zelenchuk 2019-03-01

Write Android user interface (UI) tests using Google Espresso for Android.

You'll cover all the major topics of writing functional UI automated tests using the Espresso testing framework, including different ways of running automated tests, architecting test projects in an easy and maintainable way, and using tools which help to implement automated tests with less effort. Android Espresso Revealed explains the basics of using Espresso to write automated UI tests, and how to customize the framework for advanced functionality. The author provides examples in both Java and Kotlin, and includes dealing with network operations in UI tests, testing application accessibility, implementing supervised monkey tests, and more.

What You Will Learn Write Espresso tests with both Kotlin and Java including test project migration from Java to Kotlin Test web views inside the application under test Use Espresso to set up test devices or emulators to minimize test flakiness and run tests in Firebase Test Lab Verify and stub intents with Espresso-Intents Move test projects to AndroidX Test notifications or operate on third-party apps during Espresso test execution Apply different test architecture approaches to the test project to reduce maintenance effort Implement supervised monkey tests using Espresso and UIAutomator **Who This Book Is For** Engineers with experience of Android test automation will benefit from this book

Machine Learning for Mobile - Revathi Gopalakrishnan 2018-12-31

Leverage the power of machine learning on mobiles and build intelligent mobile applications with ease **Key Features** Build smart mobile applications for Android and iOS devices Use popular machine learning toolkits such as Core ML and TensorFlow Lite Explore cloud services for machine learning that can be used in mobile apps **Book Description** Machine learning presents an entirely unique opportunity in software development. It allows smartphones to produce an enormous amount of useful data that can be mined, analyzed, and used to make predictions. This book will help you master machine learning for mobile devices with easy-to-follow, practical examples. You will begin with an introduction to machine learning on mobiles and grasp the fundamentals so you become well-acquainted with the subject. You will master supervised and unsupervised learning algorithms, and then learn how to build a machine learning model using mobile-based libraries such as Core ML, TensorFlow Lite, ML Kit, and Fritz on Android and iOS platforms. In doing so, you will also tackle some common and not-so-common machine learning problems with regard to Computer Vision and other real-world domains. By the end of this book, you will have explored machine learning in depth and implemented on-device machine learning with ease, thereby gaining a thorough understanding of how to run, create, and build real-time machine-learning applications on your mobile devices. **What you will learn** Build intelligent machine learning models that run on Android and iOS Use machine learning toolkits such as Core ML, TensorFlow Lite, and more Learn how to

use Google Mobile Vision in your mobile apps Build a spam message detection system using Linear SVM Using Core ML to implement a regression model for iOS devices Build image classification systems using TensorFlow Lite and Core ML **Who this book is for** If you are a mobile app developer or a machine learning enthusiast keen to use machine learning to build smart mobile applications, this book is for you. Some experience with mobile application development is all you need to get started with this book. Prior experience with machine learning will be an added bonus

Android for Java Programmers - Abdul-Rahman Mawlood-Yunis 2022-06-24

This textbook is about learning Android and developing native apps using the Java programming language. It follows Java and Object-Oriented (OO) programmers' experiences and expectations and thus enables them to easily map Android concepts to familiar ones. Each chapter of the book is dedicated to one or more Android development topics and has one or more illustrating apps. The topics covered include activities and transitions between activities, Android user interfaces and widgets, activity layouts, Android debugging and testing, fragments, shared preferences, SQLite and firebase databases, XML and JSON processing, the content provider, services, message broadcasting, async task and threading, the media player, sensors, Android Google maps, etc. The book is intended for introductory or advanced Android courses to be taught in one or two semesters at universities and colleges. It uses code samples and exercises extensively to explain and clarify Android coding and concepts. It is written for students and programmers who have no prior Android programming knowledge as well as those who already have some Android programming skills and are excited to study more advanced concepts or acquire a deeper knowledge and understanding of Android programming. All the apps in the book are native Android apps and do not need to use or include third-party technologies to run.

Android Studio 2.3 Development Essentials - Android 7 Edition - Neil Smyth 2017-03-16

Fully updated for Android Studio 2.3 and Android 7, 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 7 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 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, in-app billing and submitting apps to the Google Play Developer Console. The key new features of Android Studio and Android 7 are also covered in detail including the new Layout Editor, the ConstraintLayout and ConstraintSet classes, constraint chains, direct reply notifications, Firebase remote notifications and multi-window support. 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.

Beginning Flutter - Marco L. Napoli 2019-09-17

Build your first app in Flutter—no experience necessary! *Beginning Flutter: A Hands-On Guide to App Development* is the essential resource for both experienced and novice developers interested in getting started with Flutter—the powerful new mobile software development kit. With Flutter, you can quickly and easily develop beautiful, powerful apps for both Android and iOS, without the need to learn multiple programming languages or juggle more than one code base. This book walks you through the process step by step. In Flutter, you'll be working with Dart, the programming language of choice for top app developers. Even if you're just starting out in your development career, you can learn Dart quickly, eliminating the barrier to entry for building apps. This is a more efficient way to develop and maintain cross-platform mobile apps, and this book makes the process even easier with a teach-by-example approach. Focus on providing quality content by eliminating the need to switch between multiple coding languages. Learn the ins and outs of Flutter, including all the frameworks, widgets, and tools available to developers. Accelerate your app development pace, keeping all the code for your cross-platform app in a single code base. Leapfrog barriers to entry to the mobile software market, creating your first app with no experience necessary. The Flutter community is growing rapidly and transforming the way Android and iOS apps get made. *Beginning Flutter* allows you to get on board with the latest app development technology, giving your mobile development career a big head start.

Ionic 2 Cookbook - Hoc Phan 2016-11-30

Over 30 life-changing recipes to help you create cutting edge, hybrid apps with Ionic 2. About This Book Leverage Ionic 2 and its exciting new features to create cutting edge real-time apps. Work through simple recipes to address your problems directly and solve them effectively. Get examples

at each step to guide you on your learning curve. Who This Book Is For This book is for front end JavaScript developers who know the basics of JavaScript programming. No prior knowledge of Ionic is required to get the most of this book. What You Will Learn Create custom UIs using Angular 2 directives. Make the best use of REST APIs to submit forms. Create beautiful animations and graphics in the application. Embed videos and other media into the app. Access native device functionalities such as a camera and maps using ngCordova. Theme the application based on the various platform styles available. Publish your application to a variety of platforms. Leverage Angular 2 events and Ionic-specific events to communicate. In Detail Developing real-time apps is the need of the hour, and apps that deal with humongous amounts of user data and real-time information that needs to be updated frequently are in high demand. Currently, one of the most popular frameworks for this task is Ionic Framework, which is undergoing a major makeover. This book will get you started with Ionic and help you create Angular 2 components that interact with templates. From there, you'll work with Ionic components and find out how to share data efficiently between them. You'll discover how to make the best use of the REST API to handle back-end services and then move on to animating the application to make it look pretty. You'll learn to add in a local push notification in order to test the app. You'll work with Cordova to support native functionalities on both iOS and Android. From there, you'll get to grips with using the default themes for each platform as well as customizing your own. Finally, you'll see how best to deploy your app to different platforms. This book will solve all your Ionic-related issues through dedicated recipes that will help you get the best out of Ionic. Style and approach This book is a recipe-based solution to all your Ionic 2 related problems and will help you create cutting edge real-time apps with ease through simple-to-understand step-by-step recipes.

Professional Android - Reto Meier 2018-08-23

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.

Beginning Flutter - Marco L. Napoli 2019-10-08

Build your first app in Flutter—no experience necessary! *Beginning Flutter: A Hands-On Guide to App Development* is the essential resource for both

experienced and novice developers interested in getting started with Flutter—the powerful new mobile software development kit. With Flutter, you can quickly and easily develop beautiful, powerful apps for both Android and iOS, without the need to learn multiple programming languages or juggle more than one code base. This book walks you through the process step by step. In Flutter, you'll be working with Dart, the programming language of choice for top app developers. Even if you're just starting out in your development career, you can learn Dart quickly, eliminating the barrier to entry for building apps. This is a more efficient way to develop and maintain cross-platform mobile apps, and this book makes the process even easier with a teach-by-example approach. Focus on providing quality content by eliminating the need to switch between multiple coding languages Learn the ins and outs of Flutter, including all the frameworks, widgets, and tools available to developers Accelerate your app development pace, keeping all the code for your cross-platform app in a single code base Leapfrog barriers to entry to the mobile software market, creating your first app with no experience necessary The Flutter community is growing rapidly and transforming the way Android and iOS apps get made. Beginning Flutter allows you to get on board with the latest app development technology, giving your mobile development career a big head start.

Android Studio 2.3 Development Essentials - Neil Smyth 2017

Fully updated for Android Studio 2.3 and Android 7, 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 7 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 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, in-app billing and submitting apps to the Google Play Developer Console. The key new features of Android Studio and Android 7 are also covered in detail including the new Layout Editor, the `ConstraintLayout` and `ConstraintSet` classes, constraint chains, direct reply notifications, Firebase remote notifications and multi-window support.

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.

Firestore Essentials - Android Edition - Neil Smyth 2017-08-15

With 55 in-depth chapters, over 470 pages and 23 example app projects (including the source code), *Firestore Essentials - Android Edition* provides everything you need to successfully integrate Firebase cloud features into your Android apps. This book covers the key features of Android app development using Firebase including integration with Android Studio, User Authentication (including email, Twitter, Facebook and phone number sign-in), Realtime Database, Cloud Storage, Firebase Cloud Messaging (both upstream and downstream), Dynamic Links, Invites, App Indexing, Test Lab, Remote Configuration, Cloud Functions, Analytics and Performance Monitoring. The book is organized into chapter groups that focus on specific Firebase features, with each topic area consisting of a detailed overview followed by tutorial style examples that put theory into practice.

Flutter Projects - Simone Alessandria 2020-04-07

Learn Flutter and the Dart programming language by building impressive real-world mobile applications for Android and iOS Key Features Learn cross-platform mobile development with Flutter and Dart by building 11 real-world apps Create wide array of mobile projects such as 2D game, productivity timer, movie browsing app, and more Practical projects demonstrating Flutter development techniques with tips, tricks, and best practices Book Description Flutter is a modern reactive mobile framework that removes a lot of the complexity found in building native mobile apps for iOS and Android. With Flutter, developers can now build fast and native mobile apps from a single codebase. This book is packed with 11 projects that will help you build your own mobile applications using Flutter. It begins with an introduction to Dart programming and explains how it can be used with the Flutter SDK to customize mobile apps. Each chapter contains instructions on how to build an independent app from scratch, and each project focuses on important Flutter features. From building Flutter Widgets and applying animations to using databases (SQLite and `sembast`) and Firebase, you'll build on your knowledge through the chapters. As you progress, you'll learn how to connect to remote services, integrate maps, and even use `Flare` to create apps and games in Flutter. Gradually, you'll be able to create apps and games that are ready to be published on the Google Play Store and the App Store. In the concluding chapters, you'll learn how to use the BLoC pattern and various best practices related to creating enterprise apps with Flutter. By the end of this book, you will have the skills you need to write and deliver fully functional

mobile apps using Flutter. What you will learn Design reusable mobile architectures that can be applied to apps at any scale Get up to speed with error handling and debugging for mobile application development Apply the principle of 'composition over inheritance' to break down complex problems into many simple problems Update your code and see the results immediately using Flutter's hot reload Identify and prevent bugs from reappearing with Flutter's developer tools Manage an app's state with Streams and the BLoC pattern Build a simple web application using Flutter Web Who this book is for This book is for mobile developers and software developers who want to learn Flutter to build state-of-the-art mobile apps. Although prior experience with Dart programming or Flutter is not required, knowledge of object-oriented programming (OOP), data structures and software design patterns will be beneficial.

Flutter Apprentice (First Edition) - raywenderlich Tutorial Team 2020-10 Build for iOS & Android With Flutter! Flutter is an exciting development toolkit that lets you build apps for iOS, Android and even web and desktop, all from a single codebase. It uses a declarative approach to UI development. You can "hot reload" code while developing, and apps will perform at native speed thanks to its custom rendering engine. With Flutter and Flutter Apprentice, you can achieve the dream of building fast applications, faster. Who This Book Is For This book is for developers who are new to Flutter, and also developers that already have some experience with building apps for the iOS and Android platforms, or web apps. Topics Covered in Flutter Apprentice Widgets: Use Flutter widgets to build modern mobile user interfaces. Navigation: Navigate between multiple screens within a Flutter app, including using deep links. Networking and Persistence: Fetch data from the network, parse the JSON response and cache data locally in a SQLite database. State Management: Explore the all-important idea of state management in Flutter and learn about various state management techniques and tools. Streams: Learn about Dart streams and how to use them in Flutter apps. Deployment: Learn to prepare and deploy your app to mobile app stores. One thing you can count on: After reading this book, you'll be prepared to create and deploy full-featured mobile apps to both the iOS App Store and the Google Play Store, without having to write two separate apps.

Pro Android with Kotlin - Peter Späth 2018-09-03

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 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.

Learning Android Google Maps - Raj Amal W. 2015-09-30

Integrate Google Maps with your Android application to offer feature-rich and interactive maps About This Book Set up the development environment and obtain the Google API key to create your first map application Create a cutting edge Google maps application by implementing all the concepts learned A step-by-step tutorial guide that is full of pragmatic examples Who This Book Is For If you are an Android developer and want to integrate maps into your application, then this book is definitely for you. This book is intended for novice Android application developers who would like to get up and running with map rich applications using Google Maps. Some basic development experience would be helpful but it's not a mandate. What You Will Learn Get to know about the basic development environment setup needed to create a successful map application Generate an SHA1 fingerprint, obtain an API key, and create a basic map application Detect different types of maps and implement them in your application Add information to your map such as markers, overlays, information windows, and shapes Explore the interaction with maps and work with gestures Change the different camera views in your map application Work with real-time GPS location data and implementing it in your application Apply Street View and integrate the StreetViewPanorama fragment to your application Employ the native Google maps application to solve some of the tasks using intents Create a cutting edge Google maps application by implementing all the concepts learned In Detail This book helps you to overcome the most common problems faced by users and helps you create a successful map application without any hassle. The book starts with a brief description of how to set up an environment and obtain an API key to create your map application. This book will teach you about adding markers, overlays, and information windows to the map in detail. You will then dive deep into customizing various types of maps and working with location data and Google Street view. By the end of this book, you will be able to create succinct map applications in Android using Google maps efficiently. Style and approach The book is tailored for the reader with a fundamental approach to Android Google Maps providing a step-by-step introduction to Android Google Maps. It focuses on simple, easy-to-understand examples that are pragmatic and serve as useful basis for real-world applications. Different topics are approached in a bottom-up fashion, gradually going from the simplest foundations to the most advanced features.

Firestore Cookbook - Houssein Yahiaoui 2017-11-29

Practical solutions for developing seamless experiences for application that scales. About This Book A Solution based approach that would help you

create high-quality apps for your businesses Harness the power of real-time database to create apps that work on multiple platforms Build a customized solution for your app development challenges with Firebase Who This Book Is For This book will assume you have at least a minimum set of skills in JavaScript, HTML and CSS. Also, having some familiarity with backend technologies will be helpful. After all we're going to build a backend application that will change the way backend developer works.

What You Will Learn Use Firebase Diverse Authentication systems Integrate easy, secure File Hosting using Firebase Storage services Make your application serverless using Firebase Cloud Functions Use the powerful Firebase Admin SDK for privilege management Use Firebase within NativeScript apps for cross-platform applications Modify, structure, save and serve data in and from Realtime Database Get acquainted with the newly introduce Cloud Firestore, a scalable database for your web and mobile applications In Detail Do you feel tired just thinking or even hearing about backend technologies, authentication or the tedious task of deployment? Firebase is here to change the way you develop and make your app a first-class citizen of the cloud. This books takes a solution based approach by providing you recipes that would help you understand the features of Firebase and implement them in your existing web or mobile applications. We start-off by creating our first Firebase application and integrating its services into different platforms and environments for mobile as well as web applications. Then we deep dive into Real-time Database and Firebase Storage that allows your users to access data across various devices with realtive ease. With each chapter you will gradually create the building blocks of your application from securing your data with Firebase Rules to authenticating your users with O-Auth. Moving along we would explore modern application development techniques such as creating serverless applications with Firebase Cloud Functions or turning your traditional applications into progressive apps with Service workers. Finally you will learn how to create cross-platform mobile apps, integrate Firebase in native platforms, and learn how to monetize your mobile applications using Admob for Android and iOS. Style and approach This recipe-based practical guide presents each topic with step-by-step instructions on how you can create collaborative and efficient progressive applications using the latest features and capabilities in Firebase.

IoT Projects with Bluetooth Low Energy - Madhur Bhargava 2017-08-31 Use the power of BLE to create exciting IoT applications About This Book Build hands-on IoT projects using Bluetooth Low Energy and learn about Bluetooth 5 and its features. Build a health tracking system, and indoor navigation and warehouse weather monitoring projects using smart devices. Build on a theoretical foundation and create a practice-based understanding of Bluetooth Low Energy. Who This Book Is For If you're an application developer, a hardware enthusiast, or just curious about the Internet of Things and how to convert it into hands-on projects, then this book is for you. Having some knowledge of writing mobile applications will

be advantageous. What You Will Learn Learn about the architecture and IoT uses of BLE, and in which domains it is being used the most Set up and learn about various development platforms (Android, iOS, Firebase, Raspberry Pi, Beacons, and GitHub) Create an Explorer App (Android/iOS) to diagnose a Fitness Tracker Design a Beacon with the Raspberry Pi and write an app to detect the Beacon Write a mobile app to periodically poll the BLE tracking sensor Compose an app to read data periodically from temperature and humidity sensors Explore more applications of BLE with IoT Design projects for both Android and iOS mobile platforms In Detail Bluetooth Low Energy, or Bluetooth Smart, is Wireless Personal Area networking aimed at smart devices and IoT applications. BLE has been increasingly adopted by application developers and IoT enthusiasts to establish connections between smart devices. This book initially covers all the required aspects of BLE, before you start working on IoT projects. In the initial stages of the book, you will learn about the basic aspects of Bluetooth Low Energy—such as discovering devices, services, and characteristics—that will be helpful for advanced-level projects. This book will guide you through building hands-on projects using BLE and IoT. These projects include tracking health data, using a mobile App, and making this data available for health practitioners; Indoor navigation; creating beacons using the Raspberry Pi; and warehouse weather Monitoring. This book also covers aspects of Bluetooth 5 (the latest release) and its effect on each of these projects. By the end of this book, you will have hands-on experience of using Bluetooth Low Energy to integrate with smart devices and IoT projects. Style and Approach A practical guide that will help you promote yourself into an expert by building and exploring practical applications of Bluetooth Low Energy. [Saving Data on Android \(Second Edition\)](#) - raywenderlich Tutorial Team

2021-08-10

Save Data on Android! Persisting data has always been a fundamental part of any app. Saving data locally or remotely with modern synchronization techniques allows your app to always be up-to-date, reactively presenting fresh data. This book is for intermediate Kotlin or Android developers who want to know how to persist data using the standard Android APIs, the Jetpack DataStore mechanism, the Room Android Architecture Component or the features Google Firebase offers. Topics Covered in This Book: Persistence with Android SDK: Learn how to manage files, SharedPreferences or SQLite databases using the APIs the Android platform offers by default. Jetpack DataStore: Learn how to persist simple data by using key-value pairs. This is Google's new and improved solution for saving data. In this book, you'll learn basics about Preferences DataStore and how to migrate from SharedPreferences. Using Room: Room is one of the most important Android Architecture Components delivered by Google. It allows managing entities and relations using classic Object-Oriented principles. In this book, you'll learn everything you need to store data and run queries on top of it. Managing relationships with Room:

A database has entities and relationships. With this book, you'll learn how to design your database and manage relationships both eagerly and lazily. Managing and testing migrations: Every app evolves over time. Here, you'll learn how to manage migrations with Room and how to test them properly. Firebase Realtime Database: Google provides tools to manage data locally and remotely through the Firebase platform. With the Firebase Realtime Database, you can manage and keep data in sync, simply and efficiently. Cloud Storage: Another option Google provides is Cloud Storage, which allows you to leverage all the power of Google's infrastructure to manage your data and run expensive queries. Learn how to leverage its power in your own apps. You're only one step from becoming a saving data expert. It's time to dive into this book!

Real-World Android by Tutorials (First Edition) - raywenderlich Tutorial Team 2021-03-24

Real-World Android by Tutorials guides you through building one professional Android app using the most important architectures and libraries. Along the way, you'll get a solid foundation in Android development concepts so you can make informed decisions about how to apply them in your own codebase. Learn how to implement a real-world Android app. When developing a professional Android app, there are hundreds of options for libraries and possible architectures. Finding documentation is easy, but you might end up with an app structure that isn't ideal for your project. Real-World Android by Tutorials helps you implement a real-world app from scratch, addressing critical problems like finding the right architecture, making the UI responsive and appealing and implementing efficient animations. Who this book is for This book is for intermediate Android developers who already know the basics of the Android platform and the Kotlin language, and who are looking to build modern and professional apps using the most important libraries. If you want to create a reactive and good-looking UI and are determined not to ignore important aspects like security, this book will help. Topics covered in Real-World Android by Tutorials By reading this book, you'll learn about the following topics: Choosing the right architecture: Pick the right app architecture to achieve a good separation between domain and data layers, making your app easy to build and maintain. Building features: Learn how to structure your code to make it more testable. Modularization: Split your code into different modules, improving the build time and reusability of your code. Animations: Use the new Motion Editor to implement animations that make your app's UI more appealing. Custom Views: Go beyond the basics by creating a View that's specific to your app's needs. Security: Protect your app's data and code. Tooling: Mastering the right tool is a fundamental skill when creating a professional app. Learn how to use the tools to analyze your code and fix some tricky bugs. After reading this book, you'll be prepared to implement your own, professional Android app.

Mastering Android Studio 3 - Kyle Mew 2017-08-31

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 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.

Build Mobile Apps with Ionic 2 and Firebase - Fu Cheng 2017-05-02

Learn to build hybrid mobile apps using Ionic and Firebase. You'll build a Hacker News client app, which can view top stories in Hacker News, view comments of a story, add stories to favorites, etc. This introductory guide covers the whole cycle of hybrid mobile apps development. It's organized around implementing different user stories. For each story, this book not only talks about how to implement it but also explains related Ionic and

Firestore concepts in detail. Using Apache Cordova, developers can create a new type of mobile app—a hybrid mobile app. Hybrid mobile apps actually run in an internal browser inside a wrapper created by Apache Cordova. With hybrid mobile apps, developers can have one single code base for different platforms. Developers also can use their existing web development skills. The Ionic framework builds on top of Apache Cordova and provides out-of-box components which make developing hybrid mobile apps much easier. Ionic uses Angular as the JavaScript framework and has a nice default UI style with a similar look and feel to native apps. Firebase is a realtime database which can be accessed in web apps using JavaScript. With Build Mobile Apps with Ionic 2 and Firebase you'll discover that just need to develop front-end code, there's no need to manage any back-end code or servers. What You'll Learn Create content-based Ionic mobile apps Discover the advanced features of the Ionic framework Use Firebase as a mobile app's back-end storage Build, test, and continuously delivery Ionic mobile apps Publish and analyze Ionic mobile apps Who This Book Is For Front-end developers and mobile app developers

Android Cookbook - Ian Darwin 2012-04-20

Provides instruction on building Android apps, including solutions to working with web services, multitouch gestures, location awareness, and device features.

Android Application Development Cookbook - Rick Boyer 2016-03-31

Over 100 recipes to help you solve the most common problems faced by Android Developers today About This Book Find the answers to your common Android programming problems, from set up to security, to help you deliver better applications, faster Uncover the latest features of Android Marshmallow to make your applications stand out Get up to speed with Android Studio 1.4 - the first Android Studio based on the IntelliJ IDE from JetBrains 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 can benefit from this book. Either way, this is a resource you'll want to keep at your desk for a quick reference to solve new problems as you tackle more challenging projects. What You Will Learn Along with Marshmallow, get hands-on working with Google's new Android Studio IDE Develop applications using the latest Android framework while maintaining backward-compatibility with the support library Master Android programming best practices from the recipes Create exciting and 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 Keep your app responsive (and prevent ANRs) with examples on the AsyncTask class Utilize Google Speech Recognition APIs for your app. Make use of Google Cloud Messaging (GCM) to create Push Notifications for your users Get a better

understanding of the Android framework through detailed explanations In Detail 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! This “cookbook” will make it easy for you to jump to a topic of interest and get what you need to implement the feature in your own application. If you are new to Android and learn best by “doing,” then this book will provide many topics of interest. Starting with the basics of Android development, we move on to more advanced concepts, and we'll guide you through common tasks developers struggle to solve. The first few chapters cover the basics including Activities, Layouts, Widgets, and the Menu. From there, we cover fragments and data storage (including SQLite), device sensors, the camera, and GPS. Then we move on more advanced topics such as graphics and animation (including OpenGL), multi-threading with AsyncTask, and Internet functionality with Volley. We'll also demonstrate Google Maps and Google Cloud Messaging (also known as Push Notifications) using the Google API Library. Finally, we'll take a look at several online services designed especially for Android development. Take your application big-time with full Internet web services without having to become a server admin by leveraging the power of Backend as a Service (BaaS) providers. Style and approach This book progresses from the fundamentals of Android Development to more advanced concepts, with recipes to solve the most common problems faced by developers. This cookbook makes it easy to jump to specific topics of interest, where you'll find simple steps to implement the solution and get a clear explanation of how it works.

AI and Machine Learning for On-Device Development - Laurence Moroney 2021-08-12

Chapter 2. Introduction to Computer Vision -- Using Neurons for Vision -- Your First Classifier: Recognizing Clothing Items -- The Data: Fashion MNIST -- A Model Architecture to Parse Fashion MNIST -- Coding the Fashion MNIST Model -- Transfer Learning for Computer Vision -- Summary -- Chapter 3. Introduction to ML Kit -- Building a Face Detection App on Android -- Step 1: Create the App with Android Studio -- Step 2: Add and Configure ML Kit -- Step 3: Define the User Interface -- Step 4: Add the Images as Assets -- Step 5: Load the UI with a Default Picture.

Alexa Skills Projects - Madhur Bhargava 2018-06-29

Get up and running with the fundamentals of Amazon Alexa and build exciting IoT projects Key Features Gain hands-on experience of working with Amazon Echo and Alexa Build exciting IoT projects using Amazon Echo Learn about voice-enabled smart devices Book Description Amazon Echo is a smart speaker developed by Amazon, which connects to Amazon's Alexa Voice Service and is entirely controlled by voice commands. Amazon Echo is currently being used for a variety of purposes such as home automation, asking generic queries, and even ordering a

cab or pizza. Alexa Skills Projects starts with a basic introduction to Amazon Alexa and Echo. You will then deep dive into Alexa Programming concepts such as Intents, Slots, Lambdas and maintaining your skill's state using DynamoDB. You will get a clear understanding of how some of the most popular Alexa Skills work, and gain experience of working with real-world Amazon Echo applications. In the concluding chapters, you will explore the future of voice-enabled applications and their coverage with respect to the Internet of Things. By the end of the book, you will have learned to design Alexa Skills for specific purposes and interact with Amazon Echo to execute these skills. What you will learn Understand how Amazon Echo is already being used in various domains Discover how an Alexa Skill is architected Get a clear understanding of how some of the most popular Alexa Skills work Design Alexa Skills for specific purposes and interact with Amazon Echo to execute them Gain experience of programming for Amazon Echo Explore future applications of Amazon Echo and other voice-activated devices Who this book is for Alexa Skills Projects is for individuals who want to have a deep understanding of the underlying technology that drives Amazon Echo and Alexa, and how it can be integrated with the Internet of Things to develop hands-on projects.

Android Studio 2 Development Essentials - Neil Smyth 2016-05-23

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, 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 / Android Studio 3.0 Development Essentials - Android 8 Edition -

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 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.

Building Android Projects with Kotlin - Pankaj Kumar 2022-09-08

Start your journey in this exciting Android app development world **KEY FEATURES** □ Start your Kotlin adventure from the very fundamentals to sophisticated Android programming. □ Experience live coding of a video application, game design, and chat application. □ Explore the Android framework, app creation, testing, and publication to the Google Play store. **DESCRIPTION** As an ambitious Kotlin programmer or Android developer, are you frequently baffled by the options available to do a specific task? Or why a single solution is superior to the others for doing this Android task? And most importantly, how can you do Kotlin programming employing this superior alternative? The book 'Building Android Projects

with Kotlin' teaches you all you need to know to create an incredible Android application. It describes the fundamentals of Android, its components, and their purposes. This book also emphasizes the significance of clean code, modular code writing, and architectural patterns. It teaches the reader how to analyze the performance of a layout, how to select the best picture format and the fundamentals of multiscreen application development. This book discusses the creation of chat applications, video-sharing applications, and video games. The book will discuss best practices, libraries, functional requirement collecting, and feature development while constructing and explaining the functionalities of these applications. A range of topics like Android fundamentals, layout and image optimization, practical development tools, writing clean code, multiscreen app development, creating chat apps, video sharing applications, and games will be learned throughout this book. **WHAT YOU WILL LEARN** □ Develop the ability to write well-structured programs and modular codes. □ Workaround ExoPlayer, Notifications, RecyclerView, ToolBar, Unity, Jetpack components, etc. □ Explore and use Memory analyzer, Database analyzer, Logcat, and Layout Inspector. □ Examine the design patterns and performance of various layout designs and optimize accordingly. □ Create different designs for mobile and tablets in the same application. **WHO THIS BOOK IS FOR** Aspiring Android developers, Kotlin programmers, and mobile developers would benefit from reading this book by improving their writing skills and fully utilizing the benefits of Kotlin in their application development. However, before reading this book, it would be beneficial to know Kotlin. **TABLE OF CONTENTS** 1. Creating Hello World Project 2. Basics of Android Components 3. Architecture Patterns 4. Developing Chat Application 5. Publishing the Application 6. Developing Video Sharing Application 7. Introduction to Game Development 8. Development of the First Game 9. Adding Support for Big Screens 10. Introducing Important Tools/Libs for Android

Android Studio Development Essentials - Android 7 Edition - Neil Smyth
101-01-01

Beginning App Development with Flutter - Rap Payne 2019-12-04

Create iOS and Android apps with Flutter using just one codebase. App development on multiple platforms has historically been difficult and complex. This book breaks down complex concepts and tasks into easily digestible segments with examples, pictures, and hands-on labs with starters and solutions. In doing so, you'll develop a basic understanding of the Dart programming language; the entire Flutter development toolchain; the differences between stateful and stateless widgets; and a working knowledge of the architecture of apps. All the most important parts of app development with Flutter are covered in this book. Work with themes and styles. Develop custom widgets. Teach your app to respond to gestures like taps, swipes, and pinches. Design, create and control the layout of

your app. Create tools to handle form data entry from users. And ultimately create killer multiscreen apps with navigation, menus, and tabs. Flutter is Google's new framework for creating mobile apps that run on iOS and Android phones both. You had to be a super-developer to write apps for iOS or Android alone. But writing for both? Forget about it! You had to be familiar with Swift, Java/Kotlin, Xcode, Eclipse, and a bunch of other technologies simultaneously. Beginning App Development with Flutter simplifies the entire process. **What You'll Learn** Get the most out of great Flutter widgets Create custom widgets, both stateless and stateful Exercise expert control over your Flutter layouts Make your app respond to gestures like swiping, pinching and tapping Initiate async Ajax calls to RESTful APIs – including Google Firebase! **Who This Book Is For** Developers who have coded in Java, C#, C++, or any similar language. It brings app development within the reach of younger developers, so STEM groups are likely to pick up the technology. Managers, product owners, and business analysts need to understand Flutter's capabilities.

Machine Learning Projects for Mobile Applications - Karthikeyan NG
2018-10-31

Bring magic to your mobile apps using TensorFlow Lite and Core ML **Key Features** Explore machine learning using classification, analytics, and detection tasks. Work with image, text and video datasets to delve into real-world tasks Build apps for Android and iOS using Caffe, Core ML and Tensorflow Lite **Book Description** Machine learning is a technique that focuses on developing computer programs that can be modified when exposed to new data. We can make use of it for our mobile applications and this book will show you how to do so. The book starts with the basics of machine learning concepts for mobile applications and how to get well equipped for further tasks. You will start by developing an app to classify age and gender using Core ML and Tensorflow Lite. You will explore neural style transfer and get familiar with how deep CNNs work. We will also take a closer look at Google's ML Kit for the Firebase SDK for mobile applications. You will learn how to detect handwritten text on mobile. You will also learn how to create your own Snapchat filter by making use of facial attributes and OpenCV. You will learn how to train your own food classification model on your mobile; all of this will be done with the help of deep learning techniques. Lastly, you will build an image classifier on your mobile, compare its performance, and analyze the results on both mobile and cloud using TensorFlow Lite with an RCNN. By the end of this book, you will not only have mastered the concepts of machine learning but also learned how to resolve problems faced while building powerful apps on mobiles using TensorFlow Lite, Caffe2, and Core ML. **What you will learn** Demystify the machine learning landscape on mobile Age and gender detection using TensorFlow Lite and Core ML Use ML Kit for Firebase for in-text detection, face detection, and barcode scanning Create a digit classifier using adversarial learning Build a cross-platform application with face filters using OpenCV Classify food using deep CNNs and TensorFlow

Lite on iOS Who this book is for Machine Learning Projects for Mobile Applications is for you if you are a data scientist, machine learning expert, deep learning, or AI enthusiast who fancies mastering machine learning and deep learning implementation with practical examples using

TensorFlow Lite and CoreML. Basic knowledge of Python programming language would be an added advantage.

Firestore Essentials - Android Edition - Neil Smyth 2017-07-18