

Android Ndk Beginner S Guide

Beginning Android C++ Game Development introduces general and Android game developers like you to Android's powerful Native Development Kit (NDK). The Android NDK platform allows you to build the most sophisticated, complex and best performing game apps that leverage C++. In short, you learn to build professional looking and performing game apps like the book's case study, Droid Runner. In this book, you'll learn all the major aspects of game design and programming using the Android NDK and be ready to submit your first professional video game app to Google Play and Amazon Appstore for today's Android smartphones and tablet users to download and play. The techniques contained in this book include building a game engine, writing a renderer, and building a full game app with entities, game levels and collisions. As part of the tutorial you'll also learn about inserting perspectives using cameras and including audio in your game app.

Build fast and efficient Android apps that run as reliably as clockwork in a multi-device world About This Book Wide coverage of various topics that help in developing optimal applications Explore the concepts of Advanced Native Coding in depth A must-have for professional-standard Android developers for whom performance failures and the sloppy use of resources are simply unacceptable Who This Book Is For This book is aimed at developers with an advanced knowledge of Android and who want to test their skills and learn new techniques to increase the performance of their applications. We assume they are comfortable working with the entire Android SDK, and have been doing it for a few years. They need to be familiar with frameworks such as NDK to use native code, which is crucial for app performance What You Will Learn Create Android applications that squeeze the most from the limited resource capacity of devices Swap code that isn't performing Efficient memory management by identifying problems such as leaks Reap the benefits of multithreaded and asynchronous programming Maximize the security and encryption mechanisms natively provided by Android Perform efficient network operations and techniques to retrieve data from servers Master the NDK to write native code that can perform faster operations In Detail Performant applications are one of the key drivers of success in the mobile world. Users may abandon an app if it runs slowly. Learning how to build applications that balance speed and performance with functionality and UX can be a challenge; however, it's now more important than ever to get that balance right. Android High Performance will start you thinking about how to wring the most from any hardware your app is installed on, so you can increase your reach and engagement. The book begins by providing an introduction to state-of-the-art Android techniques and the importance of performance in an Android application. Then, we will explain the Android SDK tools regularly used to debug and profile Android applications. We will also learn about some advanced topics such as building layouts, multithreading, networking, and security. Battery life is one of the biggest bottlenecks in applications; and this book will show typical examples of code that exhausts battery life, how to prevent this, and how to measure battery consumption from an application in every kind of situation to ensure your apps don't drain more than they should. This book explains techniques for building optimized and efficient systems that do not drain the battery, cause memory leaks, or slow down with time. Style and approach The book follows a tutorial-based approach to take the reader from the basic fundamentals of debugging to advanced performance-improvement concepts.

Updated for JavaFX 1.3 The JavaFX platform makes it possible to write applications that can be deployed across devices ranging from cell phones to desktops, with little or no change required. JavaFX applications are written using JavaFX Script, a new and easy-to-use scripting language. Kim Topley's JavaFX™ Developer's Guide thoroughly covers the JavaFX language and its core libraries and shows you step by step how to develop and deliver JavaFX applications for the desktop and for mobile devices. It provides complete coverage of all aspects of the language, including Language syntax Tools you can use to develop, debug, and deploy JavaFX applications User interface classes Animation How to play audio and video How to use RESTful Web services and databases to retrieve the data for your application How to create custom components Transformations User interface basics, attributes, events, and controls JavaFX and networking JavaFX development with NetBeans and Eclipse Packaging and deployment Topley highlights critical topics that other books gloss over, presents detailed examples that stretch JavaFX to its limits, and shows you exactly how to build on the skills you already have. Whether you've been focused on HTML/XML/CSS Web development or Java Swing, this book will help you get outstanding results with JavaFX.

"This book--a renamed new edition of Android Wireless Application Development, Volume II--is the definitive guide to advanced commercial-grade Android development, updated for the latest Android SDK. The book serves as a reference for the Android API."--

If you have a basic understanding of the C++ programming language and want to create videogames for the Android platform, then this technology and book is ideal for you.

Appcelerator Titanium Application Development by Example Beginner's Guide is an example-driven tour of the language that guides you through all the stages of app design. The style is relaxed and friendly whilst remaining concise and structured. If you are new to this technology or curious about the possibilities of Appcelerator Titanium then this book is for you. If you are a web developer who is looking for a way to craft cross-platform apps, then this book and the Titanium language is the choice for you.

Oracle ADF 11gR2 Development Beginner's Guide will cover the basics of Oracle ADF 11g development and will then work through more complex topics as the reader gains more skills. This book will follow a tutorial approach with the content and tasks getting more advanced throughout. This book is intended for beginners who know a little about Java programming and would like to learn how to develop rich web applications using the Oracle Application Development Framework.

Master the skills you need to develop portable, highly-functional Android applications using NDK About This Book Develop portable games using Android NDK and debug them on your desktop Familiarise yourself with different popular C++ libraries on Android and use them in your games Write multi-threaded code with graphics, sound, networking, and resource storage Who This Book Is For If you want to leverage your C++ skills in mobile development and increase the performance of your Android applications, then this is the book for you. Knowledge of C or C++ is assumed, including pointer manipulation, multi-threading, object-oriented programming concepts, and the basics of C++11. It would be an added advantage if you know how to develop applications without any IDE. What You Will Learn What You Will Learn Explore popular C++ libraries and use them on Android Write portable, multithreaded native networking code Create portable audio framework using OpenAL Implement portable rendering framework using OpenGL ES 3 Debug mobile applications on your desktop machine Access resources from APK archives Render text with FreeType In Detail Android NDK is used for multimedia applications that require direct access to system resources. NDK is also the key for portability, which in turn allows a reasonably comfortable development and debugging process using familiar tools such as GCC and Clang toolchains. This is a hands-on guide to extending your game development skills with Android NDK. The book takes you through many clear, step-by-step example applications to help you further explore the features of Android NDK and some popular C++ libraries and boost your productivity by debugging the development process. Through the course of this book, you will learn how to write portable multi-threaded native code, use HTTP networking in C++, play audio files, use OpenGL ES 3, and render high-quality text. Each chapter aims to take you one step closer to building your application. By the end of this book, you will be able to create an engaging, complete gaming application. Style and approach This book adopts a step-by-step approach and each chapter is based on the material from the previous ones. The book focuses on putting to your knowledge of C++ use while you develop Android applications of your own.

Want to build apps for Android devices? This book is the perfect way to master the fundamentals. Written by experts who have taught this mobile platform to hundreds of developers in large organizations and

startups alike, this gentle introduction shows experienced object-oriented programmers how to use Android's basic building blocks to create user interfaces, store data, connect to the network, and more. Throughout the book, you'll build a Twitter-like application, adding new features with each chapter. You'll also create your own toolbox of code patterns to help you program any type of Android application with ease. Become familiar with the Android platform and how it fits into the mobile ecosystem Dive into the Android stack, including its application framework and the APK application package Learn Android's building blocks: Activities, Intents, Services, Content Providers, and Broadcast Receivers Create basic Android user interfaces and organize UI elements in Views and Layouts Build a service that uses a background process to update data in your application

Presents instructions for creating Android applications for mobile devices using Java.

Beginning Android 3D Game Development is a unique book for today's Android and game app developers who want to learn how to build 3D game apps that run on the latest Android KitKat platform using Java and OpenGL ES. A Drone Grid game case study is included.

Your Guide to CCENT and CCNA IOS Commands This book is an ideal supplement to Todd Lammle's CCENT and CCNA Study Guides, and a great quick reference for any Cisco networking administrator. Covering IOS version 15, each chapter begins with a short introduction, explaining what tasks will be discussed, followed by detailed explanations of and examples of the commands. The book includes an easy-to-navigate table of commands broken into the following topic areas: Internetworking and TCP/IP Cisco command line interface (CLI) and Security Device Manager (SDM) Router Configuration LAN Switch Configuration Advanced IOS and Troubleshooting Access Lists Network Address Translation Wireless Wide Area Networks Security IPv6 Whether you are studying for your CCENT or CCNA certification, or are a seasoned Cisco networking administrator, this IOS Commands Survival Guide is the perfect reference to help you achieve your goals.

Unleash the power of the Android OS and build the kinds of brilliant, innovative apps users love to use If you already know your way around the Android OS and can build a simple Android app in under an hour, this book is for you. If you're itching to see just how far you can push it and discover what Android is really capable of, it's for you. And if you're ready to learn how to build advanced, intuitive, innovative apps that are a blast to use, this book is definitely for you. From custom views and advanced multi-touch gestures, to integrating online web services and exploiting the latest geofencing and activity recognition features, ace Android developer, Erik Hellman, delivers expert tips, tricks and little-known techniques for pushing the Android envelope so you can: Optimize your components for the smoothest user experience possible Create your own custom Views Push the boundaries of the Android SDK Master Android Studio and Gradle Make optimal use of the Android audio, video and graphics APIs Program in Text-To-Speech and Speech Recognition Make the most of the new Android maps and location API Use Android connectivity technologies to communicate with remote devices Perform background processing Use Android cryptography APIs Find and safely use hidden Android APIs Cloud-enable your applications with Google Play Services Distribute and sell your applications on Google Play Store Learn how to unleash the power of Android and transform your apps from good to great in Android Programming: Pushing the Limits.

A hands-on guide to building mobile applications, Professional Android Application Development features concise and compelling examples that show you how to quickly construct real-world mobile applications for Android phones. Fully up-to-date for version 1.0 of the Android software development kit, it covers all the essential features, and explores the advanced capabilities of Android (including GPS, accelerometers, and background Services) to help you construct increasingly complex, useful, and innovative mobile applications for Android phones. What this book includes An introduction to mobile development, Android, and how to get started. An in-depth look at Android applications and their life cycle, the application manifest, Intents, and using external resources. Details for creating complex and compelling user interfaces by using, extending, and creating your own layouts and Views and using Menus. A detailed look at data storage, retrieval, and sharing using preferences, files, databases, and Content Providers. Instructions for making the most of mobile portability by creating rich map-based applications as well as using location-based services and the geocoder. A look at the power of background Services, using threads, and a detailed look at Notifications. Coverage of Android's communication abilities including SMS, the telephony APIs, network management, and a guide to using Internet resources Details for using Android hardware, including media recording and playback, using the camera, accelerometers, and compass sensors. Advanced development topics including security, IPC, advanced 2D / 3D graphics techniques, and user-hardware interaction. Who this book is for This book is for anyone interested in creating applications for the Android mobile phone platform. It includes information that will be valuable whether you're an experienced mobile developer or making your first foray, via Android, into writing mobile applications. It will give the grounding and knowledge you need to write applications using the current SDK, along with the flexibility to quickly adapt to future enhancements.

This book is an easy, concise but fairly complete introduction to ISO/ANSI C++ with special emphasis on object-oriented numeric computation. A user-defined numeric linear algebra library accompanies the book and can be downloaded from the web.

Embedded Android is for Developers wanting to create embedded systems based on Android and for those wanting to port Android to new hardware, or creating a custom development environment. Hackers and moders will also find this an indispensable guide to how Android works.

Are you an Android Java programmer who needs more performance? Are you a C/C++ developer who doesn't want to bother with the complexity of Java and its out-of-control garbage collector? Do you want to create fast intensive multimedia applications or games? If you've answered yes to any of these questions then this book is for you. With some general knowledge of C/C++ development, you will be able to dive headfirst into native Android development.

This book is written in a friendly, beginner's guide style with plenty of step-by-step instructions for installing, configuring, and using Magento to run your own e-commerce site. We will set up an example store in the book with enough information to adapt the instructions according to your needs. This book is for anyone who wants to create an online store using Magento. If you are a non-technical person and are discouraged by the complexity of this powerful e-commerce application, this book is ideal for you. This book would also suit someone with e-commerce knowledge but requires a guide to getting started with Magento.

Want to build apps for Android devices? This book is the perfect way to master the fundamentals. Written by an expert who's taught this mobile platform to hundreds of developers in large organizations, this gentle introduction shows experienced object-oriented programmers how to use Android's basic building blocks to create user interfaces, store data, connect to the network, and more. You'll build a Twitter-like application throughout the course of this book, adding new features with each chapter. Along the way, you'll also create your own toolbox of code patterns to help you program any type of Android application with ease. Get an overview of the Android platform and discover how it fits into the mobile ecosystem Learn about the Android stack, including its application framework, and the structure and distribution of application packages (APK) Set up your Android development environment and get started with simple programs Use Android's building blocks—Activities, Intents, Services, Content Providers, and Broadcast Receivers Learn how to build basic Android user interfaces and organize UI elements in Views and Layouts Build a service that uses a background process to update data in your application Get an introduction to Android Interface Definition Language (AIDL) and the Native Development Kit (NDK)

Offers software developers step-by-step instructions on how to create and distribute their first marketable, professional Android application.

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 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.

Dive into Bitcoin technology with this hands-on guide from one of the leading teachers on Bitcoin and Bitcoin programming. Author Jimmy Song shows Python programmers and developers how to program a Bitcoin library from scratch. You’ll learn how to work with the basics, including the math, blocks, network, and transactions behind this popular cryptocurrency and its blockchain payment system. By the end of the book, you’ll understand how this cryptocurrency works under the hood by coding all the components necessary for a Bitcoin library. Learn how to create transactions, get the data you need from peers, and send transactions over the network. Whether you’re exploring Bitcoin applications for your company or considering a new career path, this practical book will get you started. Parse, validate, and create bitcoin transactions Learn Script, the smart contract language behind Bitcoin Do exercises in each chapter to build a Bitcoin library from scratch Understand how proof-of-work secures the blockchain Program Bitcoin using Python 3 Understand how simplified payment verification and light wallets work Work with public-key cryptography and cryptographic primitives

If you’re new to C++ but understand some basic programming, then Learn C++ for Game Development lays the foundation for the C++ language and API that you’ll need to build game apps and applications. Learn C++ for Game Development will show you how to: Master C++ features such as variables, pointers, flow controls, functions, I/O, classes, exceptions, templates, and the Standard Template Library (STL) Use design patterns to simplify your coding and make more powerful games Manage memory efficiently to get the most out of your creativity Load and save games using file I/O, so that your users are never disappointed Most of today’s popular console and PC game platforms use C++ in their SDKs. Even the Android NDK and now the iOS SDK allow for C++; so C++ is growing in use for today’s mobile game apps. Game apps using C++ become much more robust, better looking, more dynamic, and better performing. After reading this book, you’ll have the skills to become a successful and profitable game app or applications developer in today’s increasingly competitive indie game marketplace. The next stage is to take the foundation from this book and explore SDKs such as Android/Ouya, PlayStation, Wii, Nintendo DS, DirectX, Unity3D, and GameMaker Studio to make your career really take off.

Fully updated for Android Studio 3.4, Android 9, 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 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, 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 3.4 and Android 9 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, 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.

If you are completely new to either Java, Android, or game programming and are aiming to publish Android games, then this book is for you. This book also acts as a refresher for those who already have experience in Java on another platforms or other object-oriented languages.

Take a practical approach to becoming a leading-edge Android developer, learning by example while combining the many technologies needed to create a successful, up-to-date web app. Practical Android Projects introduces the Android software development kit and development tools of the trade, and then dives into building cool-looking and fun apps that put Android’s amazing capabilities to work. Android is the powerful, full-featured, open source mobile platform that powers phones like Google Nexus, Motorola Droid, Samsung Galaxy S, and a variety of HTC phones and tablet computers. This book helps you quickly get Android projects up and running with the free and open source Eclipse, NetBeans, and IntelliJ IDEA IDEs. Then you build and extend mobile applications using the Android SDK, Java, Scripting Layer for Android (SL4A), and languages such as Python, Ruby, Javascript/HTML, Flex/AIR, and Lua.

Android is one of the major players in the mobile phone market. Android is a mobile platform that is built on the top of Linux operating system. The native-code support on Android offers endless opportunities to application developers, not limited the functionality that is provided by Android framework. Pro Android C++ with the NDK is an advanced tutorial and professional reference for today’s more sophisticated app developers now porting, developing or employing C++ and other native code to integrate into the Android platform to run sophisticated native apps and better performing apps in general. Using a game app case study, this book explores tools for troubleshooting, debugging, analyzing

memory issues, unit testing, unit test code coverage, performance measurement, on native applications, as well as integrating the Android NDK toolchain into existing Autoconf, Makefile, CMake, or JAM based build systems. Pro Android C++ with the NDK also covers the following: · The Android platform, and getting up to speed with the Android NDK, and exploring the APIs that are provided in native space. An overview of Java Native Interface (JNI), and auto-generating JNI code through Simplified Wrapper and Interface Generator (SWIG). An introduction to Bionic API, native networking. native multithreading, and the C++ Standard Template Library (STL) support. Native graphics and sound using JNI Graphics, OpenGL ES, and OpenSL ES. Debugging and troubleshooting native applications using Logging, GNU Debugger (GDB), Eclipse Debugger, Valgrind, strace, and other tools. Profiling native code using GProf to identify performance bottlenecks, and NEON/SIMD optimization from an advanced perspective, with tips and recommendations.

Beginning Android 4 Games Development offers everything you need to join the ranks of successful Android game developers. You'll start with game design fundamentals and programming basics, and then progress toward creating your own basic game engine and playable game that works on Android 4.0 and earlier devices. This will give you everything you need to branch out and write your own Android games. The potential user base and the wide array of available high-performance devices makes Android an attractive target for aspiring game developers. Do you have an awesome idea for the next break-through mobile gaming title? Beginning Android 4 Games Development will help you kick-start your project. The book will guide you through the process of making several example games for the Android platform, and involves a wide range of topics: The fundamentals of Android game development targeting Android 1.5-4.0+ devices The Android platform basics to apply those fundamentals in the context of making a game The design of 2D and 3D games and their successful implementation on the Android platform

Develop vision-aware and intelligent Android applications with the robust OpenCV library About This Book This is the most up-to-date book on OpenCV Android programming on the market at the moment. There is no direct competition for our title. Based on a technology that is increasing in popularity, proven by activity in forums related to this topic. This book uniquely covers applications such as the Panoramic viewer and Automatic Selfie, among others. Who This Book Is For If you are an Android developer and want to know how to implement vision-aware applications using OpenCV, then this book is definitely for you. It would be very helpful if you understand the basics of image processing and computer vision, but no prior experience is required What You Will Learn Identify and install all the elements needed to start building vision-aware Android applications Explore image representation, colored and gray scale Recognize and apply convolution operations and filtering to deal with noisy data Use different shape analysis techniques Extract and identify interest points in an image Understand and perform object detection Run native computer vision algorithms and gain performance boosts In Detail Starting from the basics of computer vision and OpenCV, we'll take you all the way to creating exciting applications. You will discover that, though computer vision is a challenging subject, the ideas and algorithms used are simple and intuitive, and you will appreciate the abstraction layer that OpenCV uses to do the heavy lifting for you. Packed with many examples, the book will help you understand the main data structures used within OpenCV, and how you can use them to gain performance boosts. Next we will discuss and use several image processing algorithms such as histogram equalization, filters, and color space conversion. You then will learn about image gradients and how they are used in many shape analysis techniques such as edge detection, Hough Line Transform, and Hough Circle Transform. In addition to using shape analysis to find things in images, you will learn how to describe objects in images in a more robust way using different feature detectors and descriptors. By the end of this book, you will be able to make intelligent decisions using the famous Adaboost learning algorithm. Style and approach An easy-to-follow tutorial packed with hands-on examples. Each topic is explained and placed in context, and the book supplies full details of the concepts used for added proficiency.

Eclipse is the most adopted integrated development environment (IDE) for Java programmers. And, now, Eclipse seems to be the preferred IDE for Android apps developers. Android Apps with Eclipse provides a detailed overview of Eclipse, including steps and the screenshots to help Android developers to quickly get up to speed on Eclipse and to streamline their day-to-day software development. This book includes the following: Overview of Eclipse fundamentals for both Java and C/C++ Development. Using Eclipse Android Development Toolkit (ADT) to develop, debug, and troubleshoot Android applications. Using Eclipse C/C++ Development Toolkit (CDT) in conjunction with Android Native Development Kit (NDK) to integrate, develop and troubleshoot native Android components through Eclipse.

A systematic guide consisting of over 70 recipes which focus on helping you build portable mobile games and aims to enhance your game development skills with clear instructions. If you are a C++ developer who wants to jump into the world of Android game development and who wants to use the power of existing C++ libraries in your existing Android Java applications, then this book is for you. You need to have basic knowledge of C or C++ including pointer manipulation, multithreading, and object-oriented programming concepts as well as some experience developing applications without using an IDE.

The first comprehensive guide to discovering and preventing attacks on the Android OS As the Android operating system continues to increase its share of the smartphone market, smartphone hacking remains a growing threat. Written by experts who rank among the world's foremost Android security researchers, this book presents vulnerability discovery, analysis, and exploitation tools for the good guys. Following a detailed explanation of how the Android OS works and its overall security architecture, the authors examine how vulnerabilities can be discovered and exploits developed for various system components, preparing you to defend against them. If you are a mobile device administrator, security researcher, Android app developer, or consultant responsible for evaluating Android security, you will find this guide is essential to your toolbox. A crack

team of leading Android security researchers explain Android security risks, security design and architecture, rooting, fuzz testing, and vulnerability analysis Covers Android application building blocks and security as well as debugging and auditing Android apps Prepares mobile device administrators, security researchers, Android app developers, and security consultants to defend Android systems against attack Android Hacker's Handbook is the first comprehensive resource for IT professionals charged with smartphone security.

In just 24 sessions of one hour or less, Sams Teach Yourself Android Game Programming in 24 Hours will help you master mobile game development for Android 4. Using a straightforward, step-by-step approach, you'll gain hands-on expertise with the entire process: from getting access to the hardware via the Android SDK to finishing a complete example game. You'll learn to use the Android SDK and open source software to design and build fast, highly playable games for the newest Android smartphones and tablets. Every lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success! Step-by-step instructions carefully walk you through the most common Android game programming tasks. Quizzes and exercises at the end of each chapter help you test your knowledge. By the Way notes present interesting information related to the discussion. Did You Know? tips offer advice or show you easier ways to perform tasks. Watch Out! cautions alert you to possible problems and give you advice on how to avoid them. Jonathan Harbour is a writer and instructor whose love for computers and video games dates back to the Commodore PET and Atari 2600 era. He has a Master's in Information Systems Management. His portfolio site at <http://www.jharbour.com> includes a discussion forum. He also authored Sams Teach Yourself Windows Phone 7 Game Programming in 24 Hours. His love of science fiction led to the remake of a beloved classic video game with some friends, resulting in Starflight—The Lost Colony (<http://www.starflightgame.com>). Learn how to... Install and configure the free development tools, including the Android 4 SDK, Java Development Kit, and Eclipse (or NetBeans) Use the Android graphics system to bring your game characters to life Load and manage bitmaps, and use double buffering for better performance Incorporate timing and animation with threaded game loops Tap into the touch screen for user input Learn to use Android sensors such as the accelerometer, gyroscope, compass, light detector, and thermometer Integrate audio into your games using the media player Build your own game engine library to simplify gameplay code in your projects Animate games with sprites using atlas images and fast matrix transforms Employ object-oriented programming techniques using inheritance and data hiding Create an advanced animation system to add interesting behaviors to game objects Detect collisions and simulate realistic movement with trigonometry Experiment with an evolving engine coding technique that more naturally reflects how games are written

This book covers Android app design fundamentals in Android Studio using Java programming language. The author assumes you have no experience in app development. The book starts with the installation of the required development environment and setting up the emulators. Then, the simplest "Hello World" app is developed step by step. In the next chapter, basics of the Java programming language are given with practical examples. Screenshots and code snippets are clearly given in the book to guide the reader. After the Java lecture, 6 complete Android apps are developed again by step by step instructions. Each code line is explained. As the reader follows the development of the example apps, he/she will learn designing user interfaces, connecting interface objects to code, developing efficient Java code and testing the app on emulators and real devices. The sample apps developed in this book are as follows: 1. Headlight app: Learn the basics of app development and use buttons in your code. 2. Body mass index (BMI) calculator app: Using input boxes, performing calculations and displaying the results on the screen. 3. Simple dice roller app: Using random number generator functions, including images in your project, displaying images on the screen and changing the displayed image programmatically. 4. The compass app: Accessing the magnetic field sensor, setting required permissions, extracting the direction angle and animating a compass figure. 5. Show my location app: Creating a map project, setting required permissions, accessing GPS device and showing real time location on the map. 6. S.O.S. sender app: Adding SMS functionality, setting required permissions and sending real time location using SMS. This book includes 146 figures and 114 code snippets that are used to explain app development concepts clearly. Full resolution colour figures and project files can be viewed and downloaded from the the book's website: www.android-java.website.

Printed in full color. Android is booming like never before, with millions of devices shipping every day. It's never been a better time to learn how to create your own 3D games and live wallpaper for Android. You'll find out all about shaders and the OpenGL pipeline, and discover the power of OpenGL ES 2.0, which is much more feature-rich than its predecessor. If you can program in Java and you have a creative vision that you'd like to share with the world, then this is the book for you. This book will teach you everything you need to know to create compelling graphics on Android. You'll learn the basics of OpenGL by building a simple game of air hockey, and along the way, you'll see how to initialize OpenGL and program the graphics pipeline using shaders. Each lesson builds upon the one before it, as you add colors, shading, 3D projections, touch interaction, and more. Then, you'll find out how to turn your idea into a live wallpaper that can run on the home screen. You'll learn about more advanced effects involving particles, lighting models, and the depth buffer. You'll understand what to look for when debugging your program, and what to watch out for when deploying to the market. OpenGL can be somewhat of a dark art to the uninitiated. As you read this book, you'll learn each new concept from first principles. You won't just learn about a feature; you'll also understand how it works, and why it works the way it does. Everything you learn is forward-compatible with the just-released OpenGL ES 3, and you can even apply these techniques to other platforms, such as iOS or HTML5 WebGL.

Design and implement Citrix farms based on XenApp 6.5.

ASP.NET Core 5 for Beginners is a practical guide for developers for building dynamic and powerful web applications with the ASP.NET Core framework and C#. From basic ASP terminologies to creating a single-page application, and from testing and maintaining the app to deploying it on the cloud, this book covers everything you need to get started.

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 Java programming language. 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 implementing maps using the Google Maps Android API, and submitting apps to the Google Play Developer Console. Other key features of Android Studio 4.1 and Android 11 are also covered in detail including the Layout Editor, the ConstraintLayout and ConstraintSet classes, constraint chains, MotionLayout animation, barriers, direct reply notifications, view bindings 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.

Over 50 hands-on recipes to help you efficiently administer and maintain your games with Cocos2d-x About This Book Build exciting games, apps, and other cross-platform GUI based interactive programs with Cocos2d-x Explore the nitty-gritty of the latest Cocos2d-x on the block, version 3.6 A step-by-step guide that shows you the functionalities of Cocos2d-x followed by an explanation of how they work Who This Book Is For If you are a game developer and want to learn more about cross-platform game development in Cocos2d-x, then this book is for you. Knowledge of C++, Xcode, Eclipse, and how to use commands in the terminal are prerequisites for this book. What You Will Learn Install and set up Cocos2d-x for your development environment Build, test, and release game applications for iOS and Android Develop your games for multiple platforms Customize Cocos2d-x for your games Use a physical engine in your games Save and load text, JSON, XML, or other formats Explore the brand new features of Cocos2d-x In Detail Cocos2d-x is a suite of open source, cross-platform game-development tools used by thousands of developers all over the world. Cocos2d-x is a game framework written in C++, with a thin platform-dependent layer. Completely written in C++, the core engine has the smallest footprint and the fastest speed of any other game engine, and is optimized to be run on all kinds of devices. You will begin with the initial setup and installation of Cocos2d before moving on to the fundamentals needed to create a new project. You will then explore and create the sprites, animations, and actions that you will include in the game. Next you will look at strings and create labels, including a label with True Type Font (TTF) font support. Later, you will learn about layer and scene creation and transition. Then you will create the GUI parts essential for a game, such as buttons and switches. After that, you will breathe life into the game with background music and sound effects using the all new Cocos2d-x audio engine. You will then discover how to manage resource files and implement processes that depend on the operating system. Finally, you will polish your game with physics such as gravity and elevation, learn about tools that will help you make games more robust and stable, and get to know best practices to improve the game you have developed. Style and approach This book is an easy-to-follow guide with ample recipes to help you better understand Cocos2d-x.

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