

Beginning Java 8 Games Development

Beginning Java 8 Fundamentals provides a comprehensive approach to learning the Java programming language, especially the object-oriented fundamentals necessary at all levels of Java development. Author Kishori Sharan provides over 90 diagrams and 240 complete programs to help beginners and intermediate level programmers learn the topics faster. Starting with basic programming concepts, the author walks you through writing your first Java program step-by-step. Armed with that practical experience, you'll be ready to learn the core of the Java language. The book continues with a series of foundation topics, including using data types, working with operators, and writing statements in Java. These basics lead onto the heart of the Java language: object-oriented programming. By learning topics such as classes, objects, interfaces, and inheritance you'll have a good understanding of Java's object-oriented model. The final collection of topics takes what you've learned and turns you into a real Java programmer. You'll see how to take the power of object-oriented programming and write programs that can handle errors and exceptions, process strings and dates, format data, and work with arrays to manipulate data.

Currently used at many colleges, universities, and high schools, this hands-on introduction to computer science is ideal for people with little or no programming experience. The goal of this concise book is not just to teach you Java, but to help you think like a computer scientist. You'll learn how to program—a useful skill by itself—but you'll also discover how to use programming as a means to an end. Authors Allen Downey and Chris Mayfield start with the most basic concepts and gradually move into topics that are more complex, such as recursion and object-oriented programming. Each brief chapter covers the material for one week of a college course and includes exercises to help you practice what you've learned. Learn one concept at a time: tackle complex topics in a series of small steps with examples Understand how to formulate problems, think creatively about solutions, and write programs clearly and accurately Determine which development techniques work best for you, and practice the important skill of debugging Learn relationships among input and output, decisions and loops, classes and methods, strings and arrays Work on exercises involving word games, graphics, puzzles, and playing cards

Level: Absolute beginner in Java. This book is for programmers who would love to learn Java quickly and firmly with hands on approach. After completing this book you will have core understanding of the Java programming language and Java platform. The book offers comprehensive coverage of Java fundamentals explained in a simplified language supported by examples. The book is divided into 29 chapters where each major topic has it's own chapter and each chapter has multiple examples to support and provide clarity on the concept. The topics covered in this book are 1. What is Java? 2. JDK and JRE 3. Setting Path Variable 4. Compiler and Interpreter 5. The First Program 6. The HelloWorld Program 7. Anatomy of HelloWorld Program 8. Multiple Main Methods 9. Public Class and File Name 10. Runtime Execution 11. Alternate HelloWorld Program 12. Numeric Data Types 13. Non Numeric Data Types 14. Literal and Constant 15. Escape Sequence 16. Immutable String 17. StringBuilder Class 18. Wrapper Classes 19. IF... Else 20. Switch... Case 21. For... Loop 22. While... Loop 23. Break and Continue 24. Conversion and Casting 25. Arithmetic and Relational Operators 26. Logical and Ternary Operators 27. Arrays 28. Jagged Array 29. For Each Loop Basically the book has lot of code(examples) for clear and deeper understanding of Java programming language.

The open source JavaFX platform offers a Java-based approach to rich Internet application (RIA) development—an alternative to Adobe Flash/Flex and Microsoft Silverlight. At over 100 million downloads, JavaFX is poised to be a significant player. Written by a JavaFX engineer and developer, this book is one of the first on the JavaFX platform to give you the following: The fundamentals of JavaFX scripting on desktop and mobile platforms Examples of RIAs using JavaFX Graphics Media and animation using JavaFX See how JavaFX gives you dynamic Java effects in your RIA development.

The biggest challenge facing many game programmers is completing their game. Most game projects fizzle out, overwhelmed by the complexity of their own code. Game Programming Patterns tackles that exact problem. Based on years of experience in shipped AAA titles, this book collects proven patterns to untangle and optimize your game, organized as independent recipes so you can pick just the patterns you need. You will learn how to write a robust game loop, how to organize your entities using components, and take advantage of the CPUs cache to improve your performance. You'll dive deep into how scripting engines encode behavior, how quadrees and other spatial partitions optimize your engine, and how other classic design patterns can be used in games.

Making a game can be an intensive process, and if not planned accurately can easily run over budget. The use of procedural generation in game design can help with the intricate and multifarious aspects of game development; thus facilitating cost reduction. This form of development enables games to create their play areas, objects and stories based on a set of rules, rather than relying on the developer to handcraft each element individually. Readers will learn to create randomized maps, weave accidental plotlines, and manage complex systems that are prone to unpredictable behavior. Tanya Short's and Tarn Adams' Procedural Generation in Game Design offers a wide collection of chapters from various experts that cover the implementation and enactment of procedural generation in games. Designers from a variety of studios provide concrete examples from their games to illustrate the many facets of this emerging sub-discipline. Key Features: Introduces the differences between static/traditional game design and procedural game design Demonstrates how to solve or avoid common problems with procedural game design in a variety of concrete ways Includes industry leaders' experiences and lessons from award-winning games World's finest guide for how to begin thinking about procedural design

Get to grips with programming techniques and game development using C++ libraries and Visual Studio 2019 Key Features Learn game development and C++ with a fun, example-driven approach Build clones of popular games such as Timberman, Zombie Survival Shooter, a co-op puzzle platformer, and Space Invaders Discover tips to expand your finished games by thinking critically, technically, and creatively Book Description The second edition of Beginning C++ Game Programming is updated and improved to include the latest features of Visual Studio 2019, SFML, and modern C++ programming techniques. With this book, you'll get a fun introduction to game programming by building five fully playable games of increasing complexity. You'll learn to build clones of popular games such as Timberman, Pong, a Zombie survival shooter, a coop puzzle platformer and Space Invaders. The book starts by covering the basics of programming. You'll study key C++ topics, such as object-oriented programming (OOP) and C++ pointers, and get acquainted with the Standard Template Library (STL). The book helps you learn about collision detection techniques and game physics by building a Pong game. As you build games, you'll also learn exciting game programming concepts such as particle effects, directional sound (spatialization), OpenGL programmable shaders, spawning objects, and much more. Finally, you'll explore game design patterns to enhance your C++ game programming skills. By the end of the book, you'll have gained the knowledge you need to build your own games with exciting features from scratch What you will learn Set up your game development project in Visual Studio 2019 and explore C++ libraries such as SFML Explore C++ OOP by building a Pong game Understand core game concepts such as game animation, game physics, collision detection, scorekeeping, and game sound Use classes, inheritance, and references to spawn and control thousands of enemies and shoot rapid-fire machine guns Add advanced features to your game using pointers, references, and the STL Scale and reuse your game code by learning modern game programming design patterns Who this book is for This book is perfect for you if you have no C++ programming knowledge, you need a beginner-level refresher course, or you want to learn how to build games or just use games as an engaging way to learn C++. Whether you aspire to publish a game (perhaps on Steam) or just want to impress friends with your creations, you'll find this book useful.

Beginning Java 8 Games DevelopmentApress

Learn the basics of Java 9, including basic programming concepts and the object-oriented fundamentals necessary at all levels of Java development. Author Kishori Sharan walks you through writing your first Java program step-by-step. Armed with that practical experience, you'll be ready to learn the core of the Java language. Beginning Java 9 Fundamentals provides over 90 diagrams and 240 complete programs to help you learn the topics faster. The book continues with a series of foundation topics, including using data types, working with operators, and writing statements in Java. These basics lead onto the heart of the Java language: object-oriented programming. By learning topics such as classes, objects, interfaces, and inheritance you'll have a good understanding of Java's object-oriented model. The final collection of topics takes what you've learned and turns you into a real Java programmer. You'll see how to take the power of object-oriented programming and write programs that can handle errors and exceptions, process strings and dates, format data, and work with arrays to manipulate data. This book is a companion to two other books also by Sharan focusing on APIs and advanced Java topics. What You'll Learn Write your first Java programs with an emphasis on learning object-oriented programming in Java Work with data types, operators, statements, classes and objects Handle exceptions, assertions, strings and dates, and object formatting Use regular expressions Work with arrays, interfaces, enums, and inheritance Deploy Java applications on memory-constrained devices using compact profiles Take advantage of the new JShell REPL tool Who This Book Is For Those who are new to Java programming, who may have some or even no prior programming experience.

A guide to Java game programming techniques covers such topics as 2D and 3D graphics, sound, artificial intelligence, multi-player games, collision detection, game scripting and customizing keyboard and mouse controls.

Get ready for a fun-filled experience of learning Java by developing games for the Android platform Key Features Learn Java, Android, and object-oriented programming from scratch Build games including Sub Hunter, Retro Pong, Bullet Hell, Classic Snake, and a 2D Scrolling Shooter Create and design your own games, such as an open-world platform game Book Description Android is one of the most popular mobile operating systems presently. It uses the most popular programming language, Java, as the primary language for building apps of all types. However, this book is unlike other Android books in that it doesn't assume that you already have Java proficiency. This new and expanded second edition of Learning Java by Building Android Games shows you how to start building Android games from scratch. The difficulty level will grow steadily as you explore key Java topics, such as variables, loops, methods, object oriented programming, and design patterns, including code and examples that are written for Java 9 and Android P. At each stage, you will put what you've learned into practice by developing a game. You will build games such as Minesweeper, Retro Pong, Bullet Hell, and Classic Snake and Scrolling Shooter games. In the later chapters, you will create a time-trial, open-world platform game. By the end of the book, you will not only have grasped Java and Android but will also have developed six cool games for the Android platform. What you will learn Set up a game development environment in Android Studio Implement screen locking, screen rotation, pixel graphics, and play sound effects Respond to a player's touch, and program intelligent enemies who challenge the player in different ways Learn game development concepts, such as collision detection, animating sprite sheets, simple tracking and following, AI, parallax backgrounds, and particle explosions Animate objects at 60 frames per second (FPS) and manage multiple independent objects using Object-Oriented Programming (OOP) Understand the essentials of game programming, such as design patterns, object-oriented programming, Singleton, strategy, and entity-component patterns Learn how to use the Android API, including Activity lifecycle, detecting version number, SoundPool API, Paint, Canvas, and Bitmap classes Build a side-scrolling shooter and an open world 2D platformer using advanced OOP concepts and

programming patterns Who this book is for Learning Java by Building Android Games is for you if you are completely new to Java, Android, or game programming and want to make Android games. This book also acts as a refresher for those who already have experience of using Java on Android or any other platform without game development experience.

Build several fully functional games as well as a game engine to use for programming cell phone and mobile games with Beginning Mobile Phone Game Programming! The included CD provides the tool, code and graphics necessary to complete all exercises covered in the chapters. Beginning Cell Phone Game Programming demystifies wireless game programming by providing clear, practical lessons using the J2ME Game API. You will learn how to use the most popular mobile programming language, Java, to build compact games that can run on any Java-enabled device, including mobile phones, pagers and handheld computers. You will also learn to add a splash screen, create a demo mode, keep track of high scores, and test, debug, and deploy your games. Topics covered include: How to construct a game engine to drive mobile games. How to use Java 2 Micro Edition (J2ME) and the Java Game API to get the most performance out of your mobile games. How to implement sprite animation and control interactions among moving sprites. How to play sound effects and music in mobile games. How to take advantage of wireless networks to build mobile multiplayer games. How to design and develop a variety of different games spanning several video games genres.

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

Beginning Java 8 Games Development, written by Java expert and author Wallace Jackson, teaches you the fundamentals of building a highly illustrative game using the Java 8 programming language. In this book, you'll employ open source software as tools to help you quickly and efficiently build your Java game applications. You'll learn how to utilize vector and bit-wise graphics; create sprites and sprite animations; handle events; process inputs; create and insert multimedia and audio files; and more. Furthermore, you'll learn about JavaFX 8, now integrated into Java 8 and which gives you additional APIs that will make your game application more fun and dynamic as well as give it a smaller foot-print; so, your game application can run on your PC, mobile and embedded devices. After reading and using this tutorial, you'll come away with a cool Java-based 2D game application template that you can re-use and apply to your own game making ambitions or for fun.

Design and create video games using Java, with the LibGDX software library. By reading Beginning Java Game Development with LibGDX, you will learn how to design video game programs and how to build them in Java. You will be able to create your own 2D games, using various hardware for input (keyboard/mouse, gamepad controllers, or touchscreen), and create executable versions of your games. The LibGDX library facilitates the game development process by providing pre-built functionality for common tasks. It is a free, open source library that includes full cross-platform compatibility, so programs written using this library can be compiled to run on desktop computers (Windows/MacOS), web browsers, and smartphones/tablets (both Android and iOS). Beginning Java Game Development with LibGDX teaches by example with many game case study projects that you will build throughout the book. This ensures that you will see all of the APIs that are encountered in the book in action and learn to incorporate them into your own projects. The book also focuses on teaching core Java programming concepts and applying them to game development. What You Will Learn How to use the LibGDX framework to create a host of 2D arcade game case studies How to compile your game to run on multiple platforms, such as iOS, Android, Windows, and MacOS How to incorporate different control schemes, such as touchscreen, gamepad, and keyboard Who This Book Is For Readers should have an introductory level knowledge of basic Java programming. In particular, you should be familiar with: variables, conditional statements, loops, and be able to write methods and classes to accomplish simple tasks. This background is equivalent to having taken a first-semester college course in Java programming.

Summary Manning's bestselling and highly recommended Unity book has been fully revised! Unity in Action, Second Edition teaches you to write and deploy games with the Unity game development platform. You'll master the Unity toolset from the ground up, adding the skills you need to go from application coder to game developer. Foreword by Jesse Schell, author of The Art of Game Design Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Build your next game without sweating the low-level details. The Unity game development platform handles the heavy lifting, so you can focus on game play, graphics, and user experience. With support for C# programming, a huge ecosystem of production-quality prebuilt assets, and a strong dev community, Unity can get your next great game idea off the drawing board and onto the screen! About the Book Unity in Action, Second Edition teaches you to write and deploy games with Unity. As you explore the many interesting examples, you'll get hands-on practice with Unity's intuitive workflow tools and state-of-the-art rendering engine. This practical guide exposes every aspect of the game dev process, from the initial groundwork to creating custom AI scripts and building easy-to-read UIs. And because you asked for it, this totally revised Second Edition

includes a new chapter on building 2D platformers with Unity's expanded 2D toolkit. What's Inside Revised for new best practices, updates, and more! 2D and 3D games Characters that run, jump, and bump into things Connect your games to the internet About the Reader You need to know C# or a similar language. No game development knowledge is assumed. About the Author Joe Hocking is a software engineer and Unity expert specializing in interactive media development. Table of Contents PART 1 - First steps Getting to know Unity Building a demo that puts you in 3D space Adding enemies and projectiles to the 3D game Developing graphics for your game PART 2 - Getting comfortable Building a Memory game using Unity's 2D functionality Creating a basic 2D Platformer Putting a GUI onto a game Creating a third-person 3D game: player movement and animation Adding interactive devices and items within the game PART 3 - Strong finish Connecting your game to the internet Playing audio: sound effects and music Putting the parts together into a complete game Deploying your game to players' devices

Rust is an exciting new programming language combining the power of C with memory safety, fearless concurrency, and productivity boosters - and what better way to learn than by making games. Each chapter in this book presents hands-on, practical projects ranging from "Hello, World" to building a full dungeon crawler game. With this book, you'll learn game development skills applicable to other engines, including Unity and Unreal. Rust is an exciting programming language combining the power of C with memory safety, fearless concurrency, and productivity boosters. With Rust, you have a shiny new playground where your game ideas can flourish. Each chapter in this book presents hands-on, practical projects that take you on a journey from "Hello, World" to building a full dungeon crawler game. Start by setting up Rust and getting comfortable with your development environment. Learn the language basics with practical examples as you make your own version of Flappy Bird. Discover what it takes to randomly generate dungeons and populate them with monsters as you build a complete dungeon crawl game. Run game systems concurrently for high-performance and fast game-play, while retaining the ability to debug your program. Unleash your creativity with magical items, tougher monsters, and intricate dungeon design. Add layered graphics and polish your game with style. What You Need: A computer running Windows 10, Linux, or Mac OS X. A text editor, such as Visual Studio Code. A video card and drivers capable of running OpenGL 3.2.

Use Java 9 and JavaFX 9 to write 3D games for the latest consumer electronics devices. Written by open source gaming expert Wallace Jackson, this book uses Java 9 and NetBeans 9 to add leading-edge features, such as 3D, textures, animation, digital audio, and digital image compositing to your games. Along the way you'll learn about game design, including game design concepts, genres, engines, and UI design techniques. To completely master Java 3D game creation, you will combine this knowledge with a number of JavaFX 9 topics, such as scene graph hierarchy; 3D scene configuration; 3D model design and primitives; model shader creation; and 3D game animation creation. With these skills you will be able to take your 3D Java games to the next level. The final section of Pro Java 9 Games Development puts the final polish on your abilities. You'll see how to add AI logic for random content selection methods; harness a professional scoring engine; and player-proof your event handling. After reading Pro Java 9 Games Development, you will come away with enough 3D expertise to design, develop, and build your own professional Java 9 games, using JavaFX 9 and the latest new media assets. What You'll Learn Design and build professional 3D Java 9 games, using NetBeans 9, Java 9, and JavaFX 9 Integrate new media assets, such as digital imagery and digital audio Integrate the new JavaFX 9 multimedia engine API Create an interactive 3D board game, modeled, textured, and animated using JavaFX Optimize game assets for distribution, and learn how to use the Java 9 module system Who This Book Is For Experienced Java developers who may have some prior game development experience. This book can be for experienced game developers new to Java programming.

Design and create video games using Construct 2. No prior experience is required. Game Development with Construct 2 teaches you to create 12 different game projects from a variety of genres, including car racing and tower defense to platformer and action-adventure. The software is user friendly and powerful, and the games you create can be exported to run on the web, desktop computers, and smartphones. What You'll Learn Create complete functional games using the Construct 2 game engine Understand general logical structures underlying video game programs Use practical game design advice (such as visual feedback and gameplay balancing) Understand programming concepts useful throughout computer science Who This Book Is For Middle school and high school students with no prior programming knowledge, and only minimal mathematical knowledge (graphing (x,y) coordinates, measuring angles, and applying formulas)

This book looks at the two most popular ways of using Java SE 6 to write 3D games on PCs: Java 3D (a high-level scene graph API) and JOGL (a Java layer over OpenGL). Written by Java gaming expert, Andrew Davison, this book uses the new Java (SE) 6 platform and its features including splash screens, scripting, and the desktop tray interface. This book is also unique in that it covers Java game development using the Java 3D API and Java for OpenGL--both critical components and libraries for Java-based 3D game application development

A clear and practical guide to building games in libGDX. This book is great for Indie and existing game developers, as well as those who want to get started with game development using libGDX. Java game knowledge of game development basics is recommended.

What is this book about? This book is a comprehensive introduction to the Java programming language, updated thoroughly (more than 35% new and updated) for the latest SDK 1.5 release. This book shows readers how to build real-world Java applications using the Java SDK. No previous programming experience is required. The author uses numerous step-by-step programming examples to guide readers through the ins and outs of Java development. In addition to fully covering new features of SDK 1.5, such as generic types, the author has also added new chapters on Java database programming with JDBC and Java programming with XML.

The book is written in such a way that learners without any background in programming are able to follow and understand it entirely. It discusses the concepts of Java in a simple and straightforward language with a clear cut explanation, without beating around the bush. On reading the book, readers are able to write simple programs on their own, as this is the first requirement to become a Java Programmer. The book provides ample solved programs which could be used by the students not only in their examinations but also to remove the fear of programming from their minds. After reading the book, the students gain the confidence to apply for a software development company, face the interview board and come out successful. The book covers sample interview questions which were asked in various interviews. It helps students to prepare for their future careers.

Learn to design and create video games using the Java programming language and the LibGDX software library. Working through the examples in this book, you will create 12 game prototypes in a variety of popular genres, from collection-based and shoot-em-up arcade games to side-scrolling platformers and sword-fighting adventure games. With the flexibility provided by LibGDX, specialized genres such as card games, rhythm games, and visual novels are also covered in this book. Major updates in this edition include chapters covering advanced topics such as alternative sources of user input, procedural content generation, and advanced graphics. Appendices containing examples for game design documentation and a complete JavaDoc style listing of the extension classes developed in the book have also been added. What You Will Learn Create 12 complete video game projects Master advanced Java programming concepts, including data structures, encapsulation, inheritance, and algorithms, in the context of game development Gain practical experience with game design topics, including user interface design, gameplay balancing, and randomized content Integrate third-party components into projects, such as particle effects, tilemaps, and gamepad controllers Who This Book Is For The target audience has a desire to make video games, and an introductory level knowledge of basic Java programming. In particular, the reader need only be familiar with: variables, conditional statements, loops, and be able to write methods to accomplish simple tasks and classes to store related data.

Advanced Java Game Programming teaches you how to create desktop and Internet computer games using the latest Java programming language techniques. Whereas other Java game programming books focus on introductory Java material, this book covers game programming for experienced Java developers. David Wallace Croft, founder of the Game Developers Java Users Group (GameJUG), has assembled an open-source reusable game library—a Swing animation engine that allows developers to use these techniques and put out new games very rapidly. The open-source game library also includes a reusable game deployment framework and a multiplayer networking library with HTTP firewall tunneling capability for applets. All of the code is open source, including the example games. The animation has been scrupulously tested and optimized in the Swing environment, and Croft clearly explains how the code works in great detail. The graphics and audio libraries used in the examples are public domain and may also be used royalty-free for creating new games.

SFML Game Development is a fast-paced, step-by-step guide, providing you with all the knowledge and tools you need to create your first game using SFML 2.0. SFML Game Development addresses ambitious C++ programmers who want to develop their own game. If you have plenty of ideas for an awesome and unique game, but don't know how to start implementing them, then this book is for you. The book assumes no knowledge about SFML or game development, but a solid understanding of C++ is required.

Android Game Development Made Easy. If you've always wanted to make Android games but didn't know where to start, this book is for you. Whether you are an absolute beginner with no programming experience or an experienced Java developer wanting to get started with game development, this comprehensive book will help you accomplish your goals and teach you how to build your own games from scratch—no game engines needed. In this beginner-friendly guide, you will find focused, step-by-step approaches designed to help you learn and practice one fundamental concept at a time. You will study Java and write object-oriented applications. You will experiment with the building blocks of Android and create fun, interactive 2D games with touch controls. You will even learn how to integrate social features such as a global leaderboard and publish your game to be shared with the billion Android users across the world. This book provides access to an extensive library of sample Java and Android game projects via its companion website so that you can continue learning on your own and grow as a game programmer. With this up-to-date guide in your hand, you will be able to successfully navigate common pitfalls and get up and running with your own projects in no time. Tested on Android Lollipop. All the code in the book has been tested on the Android Lollipop SDK (5.0), and is available under the open source MIT license at the book's companion site. Table of Contents: *Unit 1: Java Basics *Chapter 1: The Fundamentals of Programming, *Chapter 2: Beginning Java, *Chapter 3: Designing Better Objects, *Unit 2: Java Game Development, *Chapter 4: Laying the Foundations, *Chapter 5: Keeping It Simple, *Chapter 6: The Next Level, *Unit 3: Android Game Development, *Chapter 7: Beginning Android Development, *Chapter 8: The Android Game Framework, *Chapter 9: Building the Game, *Unit 4: Finishing Touches, *Chapter 10: Releasing Your Game, *Chapter 11: Continuing the Journey

Previous ed.: Boston, Mass.: Thomson Course Technology, 2008.

Learn to build a fully-functional 2D game inspired by the 1979 Atari classic, Asteroids, using just HTML5, CSS and JavaScript. Developing games has never been easier than it is now. New web technology allows even beginner developers to turn their hand to game development. Developed from an undergraduate course module, Introducing JavaScript Game Development teaches each new technology as it is introduced so can be followed by enthusiastic beginners as well as intermediate coders. You will learn how to work with HTML5 and the canvas element, how to understand paths, how to draw to a design and create your spaceship and asteroids. You'll then move on to animating your game, and finally building. You will work step-by-step through the game design process, starting with only what is necessary to complete each step, and refactoring the code as necessary

along the way, reflecting the natural progression that code follows in the real world. Each chapter is designed to take your code base to the next level and to add to your skills. After completing the examples in this book you will have the tools necessary to build your own, high-quality games. Make the process of creating object-oriented 2D games more fun and more productive and get started on your game development journey.

Do you have an awesome idea for the next break-through mobile gaming title? This updated edition will help you kick-start your project as it guides you through the process of creating several example game apps using APIs available in Android. You will learn the basics needed to join the ranks of successful Android game app developers. The book starts with game design fundamentals using Canvas and Android SDK 10 or earlier programming basics. You then will progress toward creating your own basic game engine and playable game apps that work on Android 10 or earlier smartphones and tablets. You take your game through the chapters and topics in the book to learn different tools such as OpenGL ES. And you will learn about publishing and marketing your games to monetize your creation. What You Will Learn Gain knowledge on the fundamentals of game programming in the context of Android Use Android's APIs for graphics, audio, and user input to reflect those fundamentals Develop two 2D games from scratch, based on Canvas API and OpenGL ES Create a full-featured 3D game Publish your games, get crash reports, and support your users Complete your own playable 2D OpenGL games Who This Book Is For Those with basic knowledge of Java who want to write games on the Android platform, and experienced game developers who want to know about the pitfalls and peculiarities of the platform

Takes programmers through the complete process of developing a professional quality game, covering a range of topics such as the key "gotcha" issues that could trip up even a veteran programmer, game interface design, game audio, and game engine technology

Although the number of commercial Java games is still small compared to those written in C or C++, the market is expanding rapidly. Recent updates to Java make it faster and easier to create powerful gaming applications-particularly Java 3D-is fueling an explosive growth in Java games. Java games like Puzzle Pirates, Chrome, Star Wars Galaxies, Runescape, Alien Flux, Kingdom of Wars, Law and Order II, Roboforge, Tom Clancy's Politika, and scores of others have earned awards and become bestsellers. Java developers new to graphics and game programming, as well as game developers new to Java 3D, will find Killer Game Programming in Java invaluable. This new book is a practical introduction to the latest Java graphics and game programming technologies and techniques. It is the first book to thoroughly cover Java's 3D capabilities for all types of graphics and game development projects. Killer Game Programming in Java is a comprehensive guide to everything you need to know to program cool, testosterone-drenched Java games. It will give you reusable techniques to create everything from fast, full-screen action games to multiplayer 3D games. In addition to the most thorough coverage of Java 3D available, Killer Game Programming in Java also clearly details the older, better-known 2D APIs, 3D sprites, animated 3D sprites, first-person shooter programming, sound, fractals, and networked games. Killer Game Programming in Java is a must-have for anyone who wants to create adrenaline-fueled games in Java.

Do you love video games? Ever wondered if you could create one of your own, with all the bells and whistles? It's not as complicated as you'd think, and you don't need to be a math whiz or a programming genius to do it. In fact, everything you need to create your first game, "Invasion of the Slugwroths," is included in this book and CD-ROM. Author David Conger starts at square one, introducing the tools of the trade and all the basic concepts for getting started programming with C++, the language that powers most current commercial games. Plus, he's put a wealth of top-notch (and free) tools on the CD-ROM, including the Dev-C++ compiler, linker, and debugger--and his own LlamaWorks2D game engine. Step-by-step instructions and ample illustrations take you through game program structure, integrating sound and music into games, floating-point math, C++ arrays, and much more. Using the sample programs and the source code to run them, you can follow along as you learn. Bio: David Conger has been programming professionally for over 23 years. Along with countless custom business applications, he has written several PC and online games. Conger also worked on graphics firmware for military aircraft, and taught computer science at the university level for four years. Conger has written numerous books on C, C++, and other computer-related topics. He lives in western Washington State and has also published a collection of Indian folk tales.

This book brings for you all of knowledge you need to start game programming from beginning by JAVA language. Just 4 LESSONS, you can analysis easily a game include: - actor, action, game scenarios - resources(image, sound, animation...). - handle thread and data synchronization There are many examples & case studies for practice of programming. Let's enjoy!

----- A little in this book: LESSON 1: Introduction - The World Of Bouncing Balls 1. Getting Started with One Bouncing Ball 2. Bouncing Ball in Object-Oriented Design 3. Collision Detection and Response 4. Timing Control 5. Control Panel 6. Many Balls of Different Sizes LESSON 2: Java Game Programming. 2D Graphics, Java2D and Images 1. Revisit java.awt.Graphics for Custom Drawing 1.1 Template for Custom Drawing 2. Java 2D API & Graphics2D 2.1 java.awt.Graphics2D 2.2 Affine Transform (java.awt.geom.AffineTransform) 2.3 Geometric Primitives and Shapes 2.4 Point2D (Advanced) 2.5 Interface java.awt.Shape 2.6 Stroke, Paint and Composite Attributes 3. Working with Bitmap Images 3.1 Loading Images 3.2 drawImage() 3.3 Image Affine Transforms 3.4 Image Filtering Operations 3.5 Animating Image Frames 4. High Performance Graphics 4.1 Full-Screen Display Mode (JDK 1.4) 4.2 Rendering to the Display & Double Buffering 4.3 Splash Screen LESSON 3: Playing Sound 1. Sampled Audio 1.1 javax.sound.Clip 1.2 Playing Sound Effects for Java Games 1.3 (Optional) javax.sound.SourceDataLine 2. MIDI Synthesized Sound 3. MP3 & Java Media Framework (JMF) LESSON 4: Game Engine & Framework 1. Custom Drawing 2. Init and Shutdown 3. Starting the Game Play 4. Controlling the Refresh 5. Game Thread 6. Game States 7. The Complete Java Game Framework 8. Case Study 1: The Snake Game (Part I) - Game Actor Design - Enum Snake.Direction - Collision Detection & Response 9. Snake Game - Part II 9.1 Control Panel 9.2 Menubar 9.3 Playing Sound Effect 10. Two Snakes

Android gaming is a hot topic these days, but one of the few areas of technology that does not have an abundance of clear and useful documentation online. However, there is an ever-increasing demand for Android games. This book will help you get up to speed with the essentials of game development with Android. The book begins by teaching you the setup of a game

development environment on a fundamental level. Moving on, the book deals with concepts such as building a home screen UI, implementing game objects, and painting the scene at a fixed resolution. Gradually, it builds up to the implementation of a flexible and advanced game engine that uses OpenGL ES 2 for fast, smooth frame rates. This is achieved by starting with a simple game and gradually increasing the complexity of the three complete games built step by step. By the end of the book, you will have successfully built three exciting games over the course of three engrossing and insightful projects.

Explains how to create computer games using Java code, including realistic fantasy worlds with texture mapping, advanced imaging, and seamless mapping techniques

A comprehensive Java guide, with samples, exercises, casestudies, and step-by-step instruction Beginning Java Programming: The Object Oriented Approach is a straightforward resource for getting started with one of the world's most enduringly popular programming languages. Based on classes taught by the authors, the book starts with the basics and gradually builds into more advanced concepts. The approach utilizes an integrated development environment that allows readers to immediately apply what they learn, and includes step-by-step instruction with plenty of sample programs. Each chapter contains exercises based on real-world business and educational scenarios, and the final chapter uses case studies to combine several concepts and put readers' new skills to the test. Beginning Java Programming: The Object Oriented Approach provides both the information and the tools beginners need to develop Java skills, from the general concepts of object-oriented programming. Learn to: Understand the Java language and object-oriented concept implementation Use Java to access and manipulate external data Make applications accessible to users with GUIs Streamline workflow with object-oriented patterns The book is geared for those who want to use Java in an applied environment while learning at the same time. Useful as either a course text or a stand-alone self-study program, Beginning Java Programming is a thorough, comprehensive guide.

Pro Java Games Development looks at the most popular ways of using Java to write 2D and 3D games for PCs. Written by Java gaming expert Wallace Jackson, this book uses the new Java (SE) platform and JavaFX and other features including animation, splash screens, scripting, functional programming and the desktop tray interface. After reading or using this book, you'll come away with enough expertise to build your own successful and fun Java-based game applications for the PC and perhaps even some mobile, thanks to the agility of the JavaFX platform. You may even be able to run your game application on Android.

Beginning Java 8 Language Features covers essential and advanced features of the Java programming language such as the new lambda expressions (closures), inner classes, threads, I/O, Collections, garbage collection, streams, and more. Author Kishori Sharan provides over 60 diagrams and 290 complete programs to help you visualize and better understand the topics covered in this book. The book starts with a series of chapters on the essential language features provided by Java, including annotations, inner classes, reflection, and generics. These topics are then complemented by details of how to use lambda expressions, allowing you to build powerful and efficient Java programs. The chapter on threads follows this up and discusses everything from the very basic concepts of a thread to the most advanced topics such as synchronizers, the fork/join framework, and atomic variables. This book contains unmatched coverage of Java I/O, including NIO 2.0, the Path API, the FileVisitor API, the watch service and asynchronous file I/O. With this in-depth knowledge, your data- and file-management programs will be able to take advantage of every feature of Java's powerful I/O framework. Finally, you'll learn how to use the Stream API, a new, exciting addition to Java 8, to perform aggregate operations on collections of data elements using functional-style programming. You'll examine the details of stream processing such as creating streams from different data sources, learning the difference between sequential and parallel streams, applying the filter-map-reduce pattern, and dealing with optional values.

The Game Maker's Apprentice shows you how to create nine exciting games using the wildly popular Game Maker game creation tool. This book covers a range of genres, including action, adventure, and puzzle games--complete with professional quality sound effects and visuals. It discusses game design theory and features practical examples of how this can be applied to making games that are more fun to play. Game Maker allows games to be created using a simple drag-and-drop interface, so you don't need to have any prior coding experience. It includes an optional programming language for adding advanced features to your games, when you feel ready to do so. You can obtain more information by visiting book.gamemaker.nl. The authors include the creator of the Game Maker tool and a former professional game programmer, so you'll glean understanding from their expertise.

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