

arbitrary amounts of data which can reduce application efficiency. After reading and using this book, you'll be proficient in programming reactive streams for Java in order to optimize application performance, and improve memory management and data exchanges. What You Will Learn Discover reactive streams and how to use them Work with the latest features in Java 9 and Java 11 Apply reactive streams using RxJava Program using Akka Streams Carry out reactive streams programming in Android Who This Book Is For Experienced Java programmers.

Discover all the new features and changes in Java 9, including module systems~JPMS or Project Jigsaw. This book covers the whole Java application development life cycle. You'll review all the important concepts, including module descriptor, unnamed module, and command line tools. Exploring Java 9 also serves as a practical guide for migration to module systems. Code samples from real-world scenarios solidify a foundation for learning and development and allow you to apply best practices in actual development. Additionally, you'll learn about concurrency, ECMAScript 6 features in Nashorn and Parser API, stack-walking API, Stream and Optional, utilities classes, and I/O. And it's now possible to build modularized applications in Java. You'll see how JPMS affects not only the JDK itself, but also applications that are developed upon it. What You'll Learn • Build modularized applications in Java • Migrate to module systems • Master enhanced method handles Who This Book Is ForJava developers with basic development skills

Java Examples in a Nutshell

Java 9 Dependency Injection

A Tutorial Companion to Java in a Nutshell

Java 9 Revealed

Practical techniques and best practices for optimizing Java applications through concurrency, reactive programming, and more

Java 9 Data Structures and Algorithms

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.

An Accessible Guide to the Java Language and Libraries Modern Java introduces major enhancements that impact the core Java technologies and APIs at the heart of the Java platform. Many old Java idioms are no longer needed and new features such as modularization make you far more effective. However, navigating these changes can be challenging. Core Java® SE 9 for the Impatient, Second Edition, is a complete yet concise guide that includes all the latest changes up to Java SE 9. Written by Cay S. Horstmann—author of the classic two-volume Core Java—this indispensable tutorial offers a faster, easier pathway for learning modern Java. Given Java SE 9's size and the scope of its enhancements, there's plenty to cover, but it's presented in small chunks organized for quick access and easy understanding. Horstmann's practical insights and sample code help you quickly take advantage of all that's new, from Java SE 9's long-awaited "Project Jigsaw" module system to the improvements first introduced in Java SE 8, including lambda expressions and today's Streams API Leverage modern concurrent programming based on cooperating tasks Take advantage of a multitude of API improvements for working with collections, input/output, regular expressions, and processes Whether you're just getting started with modern Java or you're an experienced developer, this guide will help you write tomorrow's most robust, efficient, and secure Java code. Register your product at informa.com/register for convenient access to downloads, updates, and/or corrections as they become available.

Master the art of fast, effective Java development with the power of concurrent and parallel programming About This Book Get detailed coverage of important recipes on multi-threading and parallel programming This book takes a close look at the Java 9 APIs and their impact on concurrency See practical examples on thread safety, high-performance classes, safe sharing, and a whole lot more Who This Book Is For The book is for Java developers and programmers at an intermediate to advanced level. It will be especially useful for developers who want to take advantage of task-based recipes using Java 9's concurrent API to program thread-safe solutions. What You Will Learn Find out to manage the basic components of the Java Concurrency API Use synchronization mechanisms to avoid data race conditions and other problems of concurrent applications Separate the thread management from the rest of the application with the Executor framework Solve problems using a parallelized version of the divide and conquer paradigm with the Fork / Join framework Process massive data sets in an optimized way using streams and reactive streams See which data structures we can use in concurrent applications and how to use them Practice efficient techniques to test concurrent applications Get to know tips and tricks to design concurrent applications In Detail Writing concurrent and parallel programming applications is an integral skill for any Java programmer. Java 9 comes with a host of fantastic features, including significant performance improvements and new APIs. This book will take you through all the new APIs, showing you how to build parallel and multi-threaded applications. The book covers all the elements of the Java Concurrency API, with essential recipes that will help you take advantage of the exciting new capabilities. You will learn how to use parallel and reactive streams to process massive data sets. Next, you will move on to create streams and use all their intermediate and terminal operations to process big collections of data in a parallel and functional way. Further, you'll discover a whole range of recipes for almost everything, such as thread management, synchronization, executors, parallel and reactive streams, and many more. At the end of the book, you will learn how to obtain information about the status of some of the most useful components of the Java Concurrency API and how to test concurrent applications using different tools. Style and approach This recipe-based book will allow you to explore the exciting capabilities of concurrency in Java. After reading this book, you will be able to comfortably build parallel applications in Java 9.

Computer programming with Java is easier than it looks. In just 24 lessons of one hour or less, you can learn to write computer programs in Java. Using a straightforward, step-by-step approach, popular author Rogers Cadenhead helps you master the skills and technology you need to create desktop and web programs, web services, an Android app, and even Minecraft mods in Java. Each lesson builds on what you've already learned, giving you a rock-solid foundation for real-world success. Full-color figures and clear step-by-step instructions visually show you how to program with Java. Quizzes and Exercises at the end of each chapter help you test your knowledge. Notes, Tips, and Cautions provide related information, advice, and warnings. Learn how to... • Set up your Java programming environment • Write your first working program in just minutes • Control program decisions and behavior • Store and work with information • Build straightforward user interfaces • Create interactive web programs • Use threading to build more responsive programs • Read and write files and XML data • Master best practices for object-oriented programming • Use Java 9's new HTTP client • Use Java to create an Android app • Expand your skills with closures • Create Minecraft mods with Java Contents at a Glance Part I Getting Started 1 Becoming a Programmer 2 Writing Your First Program 3 Vacationing in Java 4 Understanding How Java Programs Work Part II Learning the Basics of Programming 5 Storing and Changing Information in a Program 6 Using Strings to Communicate 7 Using Conditional Tests to Make Decisions 8 Repeating an Action with Loops Part III Working with Information in New Ways 9 Storing Information with Arrays 10 Creating Your First Object 11 Describing What Your Object is Like 12 Making the Most of Existing Objects Part IV Moving into Advanced Topics 13 Storing Objects in Data Structures 14 Handling Errors in a Program 15 Creating a Threaded Program 16 Using Inner Classes and Closures Part V Programming a Graphical User Interface 17 Building a Simple User Interface in Swing 18 Laying Out a User Interface 19 Responding to User Input Part VI Writing Internet Applications 20 Reading and Writing Files 21 Using Java 9's New HTTP Client 22 Creating Java2D Graphics 23 Creating Minecraft Mods with Java 24 Writing Android Apps Appendices A Using the NetBeans Integrated Development Environment B Where to Go from Here Java Resources C This Book's Web Site D Fixing a Problem with the Android Studio Emulator

Kick-start your modular programming journey and gear up for the future of Java development About This Book Master design patterns and best practices to build truly modular applications in Java 9 Upgrade your old Java code to Java 9 with ease Build and run a smooth functioning multi-module application. Who This Book Is For This book is written for Java developers who are interested in learning and understanding the techniques and best practices to build modular applications in Java. The book assumes some previous programming experience in Java 8 or earlier, familiarity with the basic Java types such as classes and interfaces, as well as experience in compiling and executing Java programs. What You Will Learn Get introduced to the concept of modules and modular programming by working on a fully modular Java application Build and configure your own Java 9 modules Work with multiple modules and establish inter-module dependencies Understand and use the principles of encapsulation, readability, and accessibility Use Jlink to generate fully loaded custom runtime images like a pro Discover the best practices to help you write awesome modules that are a joy to use and maintain Upgrade your old Java code to use the new Java 9 module system In Detail The Java 9 module system is an important addition to the language that affects the way we design, write, and organize code and libraries in Java. It provides a new way to achieve maintainable code by the encapsulation of Java types, as well as a way to write better libraries that have clear interfaces. Effectively using the module system requires an understanding of how modules work and what the best practices of creating modules are. This book will give you step-by-step instructions to create new modules as well as migrate code from earlier versions of Java to the Java 9 module system. You'll be working on a fully modular sample application and add features to it as you learn about Java modules. You'll learn how to create module definitions, setup inter-module dependencies, and use the built-in modules from the modular JDK. You will also learn about module resolution and how to use Jlink to generate custom runtime images. We will end our journey by taking a look at the road ahead. You will learn some powerful best practices that will help you as you start building modular applications. You will also learn how to upgrade an existing Java 8 codebase to Java 9, handle issues with libraries, and how to test Java 9 applications. Style and Approach The book is a step-by-step guide to understanding Modularity and building a complete application using a modular design.

Build Modularized Applications in Java

Java 9 for Programmers

Beginning Java 9 Fundamentals

Mastering Microservices with Java 9

For Early Adoption and Migration

Reactive Streams in Java

Readers familiar with Horstmann's original, two-volume "Core Java" books who are looking for a comprehensive but condensed guide to all of the new features and functions of Java SE 9 will learn how these new features impact the language and core libraries.

Java 9 ModularityPatterns and Practices for Developing Maintainable Applications©O'Reilly Media, Inc."

The upcoming Java 9 module system will affect existing applications and offer new ways of creating modular and maintainable applications. With this hands-on book, Java developers will learn not only about the joys of modularity, but also about the patterns needed to create truly modular and reliable applications. Authors Sander Mak and Paul Bakker teach you the concepts behind the Java 9 module system, along with the new tools it offers. You'll also gain learn how to modularize existing code and how to build new Java applications in a modular way. Understand Java 9 module system concepts Master the patterns and practices for building truly modular applications Migrate existing applications and libraries to Java 9 modules Use JDK 9 tools for modular development and migration

The professional programmer's Deitel® guide to Java® 9 and the powerful Java platform Written for programmers with a background in another high-level language, this book applies the Deitel signature live-code approach to teaching programming and explores the Java® 9 language and APIs in depth. The book presents concepts in fully tested programs, complete with code walkthroughs, syntax shading, code highlighting and program outputs. It features hundreds of complete Java 9 programs with thousands of lines of proven code, and hundreds of software-development tips that will help you build robust applications. Start with an introduction to Java using an early classes and objects approach, then rapidly move on to more advanced topics, including JavaFX GUI, graphics, animation and video, exception handling, lambdas, streams, functional interfaces, object serialization, concurrency, generics, generic collections, database with JDBC™ and JPA, and compiling new Java 9 features, such as the Java Platform Module System, interactive Java with JShell (for discovery, experimentation and rapid prototyping) and more. You'll enjoy the Deitels' classic treatment of object-oriented programming and the object-oriented design ATM case study, including a complete Java implementation. When you're finished, you'll have everything you need to build industrial-strength, object-oriented Java 9 applications. New Java® 9 Features Java® 9's Platform Module System Interactive Java via JShell—Java 9's REPL Collection Factory Methods, Matcher Methods, Stream Methods, JavaFX Updates, Using Modules in Shell, Completable Future Updates, Security Enhancements, Private Interface Methods and many other language and API updates. Core Java Features Classes, Objects, Encapsulation, Inheritance, Polymorphism, Interfaces Composition vs. Inheritance, "Programming to an Interface not an Implementation" Lambdas, Sequential and Parallel Streams, Functional Interfaces with Default and Static Methods, Immutability JavaFX GUI, 2D and 3D Graphics, Animation, Video, CSS, Scene Builder Files, I/O Streams, XML Serialization Concurrency for Optimal Multi-Core Performance, JavaFX Concurrency APIs Generics and Generic Collections Recursion, Database (JDBC™ and JPA) Keep in Touch Contact the authors at: deitel@deitel.com Join the Deitel social media communities LinkedIn® at bit.ly/DeitelLinkedIn Facebook® at [facebook.com/DeitelFan](https://www.facebook.com/DeitelFan) Twitter® at twitter.com/deitel YouTube™ at youtube.com/DeitelTV Subscribe to the Deitel @ Buzz e-mail newsletter at www.deitel.com/newsletter/subscribe.html For source code and updates, visit: www.deitel.com/books/Java9FP

Develop modular applications using the Java Platform Module System, the single most anticipated feature in Java 9. You will improve maintainability and performance of your Java applications by deploying only modules that are needed and encapsulating their implementation details. Until now Java has meant incorporating the entirety of the runtime environment, an approach ill-suited to the increasing number of IoT devices such as fitness monitors, kitchen appliances, toys and games, and so forth. This book shows a new way, to make Java scale from the smallest of footprints in the smallest of devices through desktop PCs and on up to server platforms. With Java 9 Modularity Revealed you will learn to make your projects more reliable and scalable than ever using the most important feature in Java 9—The Java Platform Module System, known more commonly as Project Jigsaw. You will learn how to avoid one of the major pain points of Java programming, that of conflicting class names from different modules, or packages. You will learn to create custom run-time images that represent a minimal and more compact JRE containing only those modules that you need. You will further learn to migrate existing Java applications to modular ones using different approaches and tools. The end result is a new ability to plug together different modules without fear of namespace and other conflicts, and you can deploy to everything from small devices to large servers. This book provides code examples and explanations. What You'll Learn Build Java applications using the new modular system introduced in Java 9 Create your own JRE consisting only of the modules that you require Adapt your testing techniques toward modular applications lare your dependencies on other modules Enable modules to export only specific packages Migrate existing Java applications to modular ones Improve maintainability and performance of Java applications Who This Book Is For Experienced Java programmers wanting to keep up and become informed on the new modularity support in Java 9

Java 9 Programming Blueprints

Concurrency with RxJava, Reactor, and Akka Streams

Java in Easy Steps

Core Java SE 9 for the Impatient

Java: A Beginner's Tutorial (5th Edition)

Written for programmers with a background in another high-level language, this book applies the Deitel signature live-code approach to teaching programming and explores the Java(R) 9 language and APIs in depth. The book presents concepts in fully tested programs, complete with code walkthroughs, syntax shading, code highlighting and program outputs. It features hundreds of complete Java 9 programs with thousands of lines of proven code, and hundreds of software-development tips that will help you build robust applications. Start with an introduction to Java using an early classes and objects approach, then rapidly move on to more advanced topics, including JavaFX GUI, graphics, animation and video, exception handling, lambdas, streams, functional interfaces, object serialization, concurrency, generics, generic collections, database with JDBC(TM) and JPA, and compiling new Java 9 features, such as the Java Platform Module System, interactive Java with JShell (for discovery, experimentation and rapid prototyping) and more. You'll enjoy the Deitels' classic treatment of object-oriented programming and the object-oriented design ATM case study, including a complete Java implementation. When you're finished, you'll have everything you need to build industrial-strength, object-oriented Java 9 applications. -- Provided by publisher.

Core Java Interview Questions You'll Most Likely Be Asked

Build large scale applications using Java modularity and Project Jigsaw

Project Jigsaw and Scalable Java Applications

Java 9 with JShell

JavaFX 9 by Example

Build domain-driven microservice-based applications with Spring, Spring Cloud, and Angular