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# Site To Download Java Concurrency In Practice Brian Goetz

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**KEY=JAVA - MARIANA GARDNER**

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## Java Concurrency in Practice

[Pearson Education](#) Provides information on building concurrent applications using Java.

## Java Concurrency in Practice

[Addison-Wesley Professional](#) Provides information on building concurrent applications using Java.

## Java Concurrency in Practice

[Pearson Education](#) Threads are a fundamental part of the Java platform. As multicore processors become the norm, using concurrency effectively becomes essential for building high-performance applications. Java SE 5 and 6 are a huge step forward for the development of concurrent applications, with improvements to the Java Virtual Machine to support high-performance, highly scalable concurrent classes and a rich set of new concurrency building blocks. In Java Concurrency in Practice, the creators of these new facilities explain not only how they work and how to use them, but also the motivation and design patterns behind them. However, developing, testing, and debugging multithreaded programs can still be very difficult; it is all too easy to create concurrent programs that appear to work, but fail when it matters most: in production, under heavy load. Java Concurrency in Practice arms readers with both the theoretical underpinnings and concrete techniques for building reliable, scalable, maintainable concurrent applications. Rather than simply offering an inventory of concurrency APIs and mechanisms, it provides design rules, patterns, and mental models that make it easier to build concurrent programs that are both correct and performant. This book covers: Basic concepts of concurrency and thread safety Techniques for building and composing thread-safe classes Using the concurrency building blocks in java.util.concurrent Performance optimization dos and don'ts Testing concurrent programs Advanced topics such as atomic variables, nonblocking algorithms, and the Java Memory Model

## Java Concurrency in Practice

[Pearson Education India](#)

## Programming Concurrency on the JVM

## Mastering Synchronization, STM, and Actors

[Pragmatic Bookshelf](#) More than ever, learning to program concurrency is critical to creating faster, responsive applications. Speedy and affordable multicore hardware is driving the demand for high-performing applications, and you can leverage the Java platform to bring these applications to life. Concurrency on the Java platform has evolved, from the synchronization model of JDK to software transactional memory (STM) and actor-based concurrency. This book is the first to show you all these concurrency styles so you can compare and choose what works best for your applications. You'll learn the benefits of each of these models, when and how to use them, and what their limitations are. Through hands-on exercises, you'll learn how to avoid shared mutable state and how to write good, elegant, explicit synchronization-free programs so you can create easy and safe concurrent applications. The techniques you learn in this book will take you from dreading concurrency to mastering and enjoying it. Best of all, you can work with Java or a JVM language of your choice - Clojure, JRuby, Groovy, or Scala - to reap the growing power of multicore hardware. If you are a Java programmer, you'd need JDK 1.5 or later and the Akka 1.0 library. In addition, if you program in Scala, Clojure, Groovy or JRuby you'd need the latest version of your preferred language. Groovy programmers will also need GPar.

## Beyond Java

# A Glimpse at the Future of Programming Languages

"O'Reilly Media, Inc." Bruce Tate, author of the Jolt Award-winning *Better, Faster, Lighter Java* has an intriguing notion about the future of Java, and it's causing some agitation among Java developers. Bruce believes Java is abandoning its base, and conditions are ripe for an alternative to emerge. In *Beyond Java*, Bruce chronicles the rise of the most successful language of all time, and then lays out, in painstaking detail, the compromises the founders had to make to establish success. Then, he describes the characteristics of likely successors to Java. He builds to a rapid and heady climax, presenting alternative languages and frameworks with productivity and innovation unmatched in Java. He closes with an evaluation of the most popular and important programming languages, and their future role in a world beyond Java. If you are agree with the book's premise--that Java's reign is coming to an end--then this book will help you start to build your skills accordingly. You can download some of the frameworks discussed and learn a few new languages. This book will teach you what a new language needs to succeed, so when things do change, you'll be more prepared. And even if you think Java is here to stay, you can use the best techniques from frameworks introduced in this book to improve what you're doing in Java today.

## Java Threads

"O'Reilly Media, Inc." Explains how to use Java's portable platforms to program and use threads effectively and efficiently while avoiding common mistakes

## Effective Enterprise Java

Addison-Wesley Professional "With this book, Ted Neward helps you make the leap from being a good Java enterprise developer to a great developer!" --John Crupi, Sun Distinguished Engineer coauthor, *Core J2EE Patterns* If you want to build better Java enterprise applications and work more efficiently, look no further. Inside, you will find an accessible guide to the nuances of Java 2 Platform, Enterprise Edition (J2EE) development. Learn how to: Use in-process or local storage to avoid the network, see item 44 Set lower isolation levels for better transactional throughput, see item 35 Use Web services for open integration, see item 22 Consider your lookup carefully, see item 16 Pre-generate content to minimize processing, see item 55 Utilize role-based authorization, see item 63 Be robust in the face of failure, see item 7 Employ independent JREs for side-by-side versioning, see item 69 Ted Neward provides you with 75 easily digestible tips that will help you master J2EE development on a systemic and architectural level. His panoramic look at the good, the bad, and the ugly aspects of J2EE development will address your most pressing concerns. Learn how to design your enterprise systems so they adapt to future demands. Improve the efficiency of your code without compromising its correctness. Discover how to implement sophisticated functionality that is not directly supported by the language or platform. After reading *Effective Enterprise Java*, you will know how to design and implement better, more scalable enterprise-scope Java software systems.

## Concurrent Programming in Java

## Design Principles and Patterns

Addison-Wesley Professional Software -- Programming Languages.

## JAVA CONCURRENCY IN PRACTICE.

## Inside the Java Virtual Machine

Computing McGraw-Hill A manual on the Java 1.2 virtual machine. This new edition contains a new chapter providing a tutorial on using native methods with the JNI (Java Native Interface) specification. The CD-ROM contains source code examples from the book, interactive illustrations, Java Development Kit, and a resources Web site.

## Concurrent and Distributed Computing in Java

John Wiley & Sons *Concurrent and Distributed Computing in Java* addresses fundamental concepts in concurrent computing with Java examples. The book consists of two parts. The first part deals with techniques for programming in shared-memory based systems. The book covers concepts in Java such as threads, synchronized methods, waits, and notify to expose students to basic concepts for multi-threaded programming. It also includes algorithms for mutual exclusion, consensus, atomic objects, and wait-free data structures. The second part of the book deals with programming in a message-passing system. This part covers resource allocation problems, logical clocks, global property detection, leader election, message ordering, agreement algorithms, checkpointing, and message logging. Primarily a textbook for upper-level undergraduates and graduate students, this thorough treatment will also be of interest to professional programmers.

## The Art of Multiprocessor Programming, Revised Reprint

Elsevier Revised and updated with improvements conceived in parallel programming courses, *The Art of Multiprocessor Programming* is an authoritative guide to multicore programming. It introduces a higher level set of software development skills than that needed for efficient single-core programming. This book provides comprehensive coverage of the new principles, algorithms, and tools

necessary for effective multiprocessor programming. Students and professionals alike will benefit from thorough coverage of key multiprocessor programming issues. This revised edition incorporates much-demanded updates throughout the book, based on feedback and corrections reported from classrooms since 2008. Learn the fundamentals of programming multiple threads accessing shared memory. Explore mainstream concurrent data structures and the key elements of their design, as well as synchronization techniques from simple locks to transactional memory systems. Visit the companion site and download source code, example Java programs, and materials to support and enhance the learning experience.

## Basic Mathematics

Pearson College Division Basic Mathematics, by Goetz, Smith, and Tobey, is your on-ramp to success in mathematics! The authors provide generous levels of support and interactivity throughout their text, helping you experience many small successes, one concept at a time. You will take an active role while using this text through making decisions, solving exercises, or answering questions as you read. This interactive structure allows you to get up to speed at your own pace, while also developing the skills necessary to succeed in future mathematics courses. To deepen the interactive nature of the book, Twitter® is used throughout the text, with the authors also providing a tweet for every exercise set of every section, giving you timely hints and suggestions to help with specific exercises.

## Java 9 Concurrency Cookbook

Packt Publishing Ltd 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.

## Java Network Programming

"O'Reilly Media, Inc." A guide to developing network programs covers networking fundamentals as well as TCP and UDP sockets, multicasting protocol, content handlers, servlets, I/O, parsing, Java Mail API, and Java Secure Sockets Extension.

## Pro Apache Log4j

Apress \* Illustrates each concept with code samples in Java language; provides guidelines for different application-specific needs. \* Describes the techniques to distribute the logging activity—critical to implement in an enterprise-wide logging framework. \* The only Java Logging book on the market, and includes Best Practices guidelines.

## Efficient Android Threading

## Asynchronous Processing Techniques for Android

## Applications

"O'Reilly Media, Inc." Multithreading is essential if you want to create an Android app with a great user experience, but how do you know which techniques can help solve your problem? This practical book describes many asynchronous mechanisms available in the Android SDK, and provides guidelines for selecting the ones most appropriate for the app you're building. Author Anders Goransson demonstrates the advantages and disadvantages of each technique, with sample code and detailed explanations for using it efficiently. The first part of the book describes the building blocks of asynchronous processing, and the second part covers Android libraries and constructs for developing fast, responsive, and well-structured apps. Understand multithreading basics in Java and on the Android platform. Learn how threads communicate within and between processes. Use strategies to reduce the risk of memory leaks. Manage the lifecycle of a basic thread. Run tasks sequentially in the background with HandlerThread. Use Java's Executor Framework to

control or cancel threads Handle background task execution with AsyncTask and IntentService Access content providers with AsyncQueryHandler Use loaders to update the UI with new data

## Effective Java

Addison-Wesley Professional Are you looking for a deeper understanding of the Java™ programming language so that you can write code that is clearer, more correct, more robust, and more reusable? Look no further! Effective Java™, Second Edition, brings together seventy-eight indispensable programmer's rules of thumb: working, best-practice solutions for the programming challenges you encounter every day. This highly anticipated new edition of the classic, Jolt Award-winning work has been thoroughly updated to cover Java SE 5 and Java SE 6 features introduced since the first edition. Bloch explores new design patterns and language idioms, showing you how to make the most of features ranging from generics to enums, annotations to autoboxing. Each chapter in the book consists of several "items" presented in the form of a short, standalone essay that provides specific advice, insight into Java platform subtleties, and outstanding code examples. The comprehensive descriptions and explanations for each item illuminate what to do, what not to do, and why. Highlights include: New coverage of generics, enums, annotations, autoboxing, the for-each loop, varargs, concurrency utilities, and much more Updated techniques and best practices on classic topics, including objects, classes, libraries, methods, and serialization How to avoid the traps and pitfalls of commonly misunderstood subtleties of the language Focus on the language and its most fundamental libraries: java.lang, java.util, and, to a lesser extent, java.util.concurrent and java.io Simply put, Effective Java™, Second Edition, presents the most practical, authoritative guidelines available for writing efficient, well-designed programs.

## Mastering Concurrency Programming with Java 9

Packt Publishing Ltd Master the principles to make applications robust, scalable and responsive About This Book Implement concurrent applications using the Java 9 Concurrency API and its new components Improve the performance of your applications and process more data at the same time, taking advantage of all of your resources Construct real-world examples related to machine learning, data mining, natural language processing, and more Who This Book Is For This book is for competent Java developers who have basic understanding of concurrency, but knowledge of effective implementation of concurrent programs or usage of streams for making processes more efficient is not required What You Will Learn Master the principles that every concurrent application must follow See how to parallelize a sequential algorithm to obtain better performance without data inconsistencies and deadlocks Get the most from the Java Concurrency API components Separate the thread management from the rest of the application with the Executor component Execute phased-based tasks in an efficient way with the Phaser components Solve problems using a parallelized version of the divide and conquer paradigm with the Fork / Join framework Find out how to use parallel Streams and Reactive Streams Implement the "map and reduce" and "map and collect" programming models Control the concurrent data structures and synchronization mechanisms provided by the Java Concurrency API Implement efficient solutions for some actual problems such as data mining, machine learning, and more In Detail Concurrency programming allows several large tasks to be divided into smaller sub-tasks, which are further processed as individual tasks that run in parallel. Java 9 includes a comprehensive API with lots of ready-to-use components for easily implementing powerful concurrency applications, but with high flexibility so you can adapt these components to your needs. The book starts with a full description of the design principles of concurrent applications and explains how to parallelize a sequential algorithm. You will then be introduced to Threads and Runnables, which are an integral part of Java 9's concurrency API. You will see how to use all the components of the Java concurrency API, from the basics to the most advanced techniques, and will implement them in powerful real-world concurrency applications. The book ends with a detailed description of the tools and techniques you can use to test a concurrent Java application, along with a brief insight into other concurrency mechanisms in JVM. Style and approach This is a complete guide that implements real-world examples of algorithms related to machine learning, data mining, and natural language processing in client/server environments. All the examples are explained using a step-by-step approach.

## Java Generics and Collections

"O'Reilly Media, Inc." This book, written by one of the designers of generics, is a thorough explanation of how to use generics, and particularly, the effect this facility has on the way developers use collections.

## Modern Java in Action

## Lambdas, streams, functional and reactive programming

Simon and Schuster Summary Manning's bestselling Java 8 book has been revised for Java 9! In Modern Java in Action, you'll build on your existing Java language skills with the newest features and techniques. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Modern applications take advantage of innovative designs, including microservices, reactive architectures, and streaming data. Modern Java features like lambdas, streams, and the long-awaited Java Module System make implementing these designs significantly easier. It's time to upgrade your skills and meet these challenges head on! About the Book Modern Java in Action connects new features of the Java language with their practical applications. Using crystal-clear examples and careful attention to detail, this book respects your time. It will help you expand your existing knowledge of core Java as you master modern additions like the Streams API and the Java Module System, explore new approaches to concurrency, and learn how functional concepts can help you write code that's easier to read and maintain. What's inside Thoroughly revised edition of Manning's bestselling Java 8 in Action New features in Java 8, Java 9, and beyond Streaming data and reactive programming The Java Module System About the Reader Written for developers familiar with core Java features. About the Author Raoul-Gabriel

[Urma is CEO of Cambridge Spark. Mario Fusco is a senior software engineer at Red Hat. Alan Mycroft is a University of Cambridge computer science professor; he cofounded the Raspberry Pi Foundation. Table of Contents PART 1 - FUNDAMENTALS Java 8, 9, 10, and 11: what's happening? Passing code with behavior parameterization Lambda expressions PART 2 - FUNCTIONAL-STYLE DATA PROCESSING WITH STREAMS Introducing streams Working with streams Collecting data with streams Parallel data processing and performance PART 3 - EFFECTIVE PROGRAMMING WITH STREAMS AND LAMBDA Collection API enhancements Refactoring, testing, and debugging Domain-specific languages using lambdas PART 4 - EVERYDAY JAVA Using Optional as a better alternative to null New Date and Time API Default methods The Java Module System PART 5 - ENHANCED JAVA CONCURRENCY Concepts behind CompletableFuture and reactive programming CompletableFuture: composable asynchronous programming Reactive programming PART 6 - FUNCTIONAL PROGRAMMING AND FUTURE JAVA EVOLUTION Thinking functionally Functional programming techniques Blending OOP and FP: Comparing Java and Scala Conclusions and where next for Java](#)

## Java 8 in Action

"Java 8 in Action is a clearly written guide to the new features of Java 8. It begins with a practical introduction to lambdas, using real-world Java code. Next, it covers the new Streams API and shows how you can use it to make collection-based code radically easier to understand and maintain. It also explains other major Java 8 features including default methods, Optional, CompletableFuture, and the new Date and Time API ... This book/course is written for programmers familiar with Java and basic OO programming."-- Resource description page.

## Concurrency in C# Cookbook

## Asynchronous, Parallel, and Multithreaded Programming

"O'Reilly Media, Inc." If you're one of the many developers uncertain about concurrent and multithreaded development, this practical cookbook will change your mind. With more than 75 code-rich recipes, author Stephen Cleary demonstrates parallel processing and asynchronous programming techniques, using libraries and language features in .NET 4.5 and C# 5.0. Concurrency is becoming more common in responsive and scalable application development, but it's been extremely difficult to code. The detailed solutions in this cookbook show you how modern tools raise the level of abstraction, making concurrency much easier than before. Complete with ready-to-use code and discussions about how and why the solution works, you get recipes for using: [async and await for asynchronous operations](#) [Parallel programming with the Task Parallel Library](#) [The TPL Dataflow library for creating dataflow pipelines](#) [Capabilities that Reactive Extensions build on top of LINQ](#) [Unit testing with concurrent code](#) [Interop scenarios for combining concurrent approaches](#) [Immutable, threadsafe, and producer/consumer collections](#) [Cancellation support in your concurrent code](#) [Asynchronous-friendly Object-Oriented Programming](#) [Thread synchronization for accessing data](#)

## Java" Puzzlers: Traps, Pitfalls, And Corner Cases

[Pearson Education India](#)

## Java Performance

## In-Depth Advice for Tuning and Programming Java 8, 11, and Beyond

O'Reilly Media [Coding and testing are generally considered separate areas of expertise. In this practical book, Java expert Scott Oaks takes the approach that anyone who works with Java should be adept at understanding how code behaves in the Java Virtual Machine—including the tunings likely to help performance. This updated second edition helps you gain in-depth knowledge of Java application performance using both the JVM and the Java platform. Developers and performance engineers alike will learn a variety of features, tools, and processes for improving the way the Java 8 and 11 LTS releases perform. While the emphasis is on production-supported releases and features, this book also features previews of exciting new technologies such as ahead-of-time compilation and experimental garbage collections. Understand how various Java platforms and compilers affect performance Learn how Java garbage collection works Apply four principles to obtain best results from performance testing Use the JDK and other tools to learn how a Java application is performing Minimize the garbage collector's impact through tuning and programming practices Tackle performance issues in Java APIs Improve Java-driven database application performance](#)

## Coordination Models and Languages

## 10th International Conference, COORDINATION 2008,

## Oslo, Norway, June 4-6, 2008, Proceedings

Springer Science & Business Media This book constitutes the refereed proceedings of the 10th International Conference on Coordination Models and Languages, COORDINATION 2008, held in Oslo, Norway, in June 2008, as one of the federated conferences on Distributed Computing Techniques, DisCoTec 2008. The 21 revised full papers presented were carefully reviewed and selected from 61 submissions. The subject-matter is to explore the spectrum of languages, middleware, services, and algorithms that separate behavior from interaction, therefore increasing modularity, simplifying reasoning, and ultimately enhancing software development.

## Java in a Nutshell

Oreilly & Associates Incorporated Java in a Nutshell, Deluxe Edition is a Java programmer's dream come true in one small package. The heart of this Deluxe Edition is the Java Reference Library on CD-ROM, which brings together five volumes for Java developers and programmers, linking related info across books. It includes: Exploring Java, 2nd Edition, Java Language Reference, 2nd Edition, Java Fundamental Classes Reference, Java AWT Reference, and Java in a Nutshell, 2nd Edition, included both on the CD-ROM and in a companion desktop edition. Java in a Nutshell, Deluxe Edition is an indispensable resource for anyone doing serious programming with Java 1.1. The Java Reference Library alone is also available by subscription on the World Wide Web. Please see <http://online-books.oreilly.com/books/javaref/> for details. The electronic text on the Web and on the CD is fully searchable and includes a complete index to all five volumes. It also includes the sample code found in the printed volumes. Exploring Java, 2nd Edition introduces the basics of Java 1.1 and offers a clear, systematic overview of the language. It covers the essentials of hot topics like Beans and RMI, as well as writing applets and other applications, such as networking programs, content and protocol handlers, and security managers. The Java Language Reference, 2nd Edition is a complete reference that describes all aspects of the Java language, including syntax, object-oriented programming, exception handling, multithreaded programming, and differences between Java and C/C++. The second edition covers the new language features that have been added in Java 1.1, such as inner classes, class literals, and instance initializers. The Java Fundamental Classes Reference provides complete reference documentation on the core Java 1.1 classes that comprise the java.lang, java.io, java.net, java.util, java.text, java.math, java.lang.reflect, and java.util.zip packages. These classes provide general-purpose functionality that is fundamental to every Java application. The Java AWT Reference provides complete reference documentation on the Abstract Window Toolkit (AWT), a large collection of classes for building graphical user interfaces in Java. Java in a Nutshell, 2nd Edition, the bestselling book on Java and the one most often recommended on the Internet, is a complete quick-reference guide to Java, containing descriptions of all of the classes in the Java 1.1 core API, with a definitive listing of all methods and variables, with the exception of the still-evolving Enterprise APIs. These APIs will be covered in a future volume. Highlights of the library include: History and principles of Java How to integrate applets into the World Wide Web A detailed look into Java's style of object-oriented programming Detailed coverage of all the essential classes in java.lang, java.io, java.util, java.net, java.awt Using threads Network programming Content and protocol handling A detailed explanation of Java's image processing mechanisms Material on graphics primitives and rendering techniques Writing a security manager System requirements: The CD-ROM is readable on all Windows and UNIX platforms. Current implementations of the Java Virtual Machine for the Mac platform do not support the Java search applet in this CD-ROM. Mac users can purchase the World Wide Web version (see <http://online-books.oreilly.com/books/javaref/> for more information). A Web browser that supports HTML 3.2, Java, and JavaScript, such as Netscape 3.0 or Internet Explorer 3.0, is required.

## The Adventure of Two Lifetimes

Anacus Press Inc This book defines America and Americans in two very different generations as it fuses the story of Peggy and Brian Goetz with the tale of Peggy's mother June, to create a memoir of time and places. This is a book about one woman's courage and quest for a place in the world forever changed her life, and how her daughter, together with her husband, emerged from the shadow of that feat to find her own place in the world.

## Java SE 8 for the Really Impatient

Pearson Education This book concisely introduces Java 8's most valuable new features, including lambda expressions (closures) and streams. If you're an experienced Java programmer, the author's practical insights and sample code will help you quickly take advantage of these and other Java language and platform improvements.

## Optimizing Java

## Practical Techniques for Improving JVM Application Performance

"O'Reilly Media, Inc." Performance tuning is an experimental science, but that doesn't mean engineers should resort to guesswork and folklore to get the job done. Yet that's often the case. With this practical book, intermediate to advanced Java technologists working with complex technology stacks will learn how to tune Java applications for performance using a quantitative, verifiable approach. Most resources on performance tend to discuss the theory and internals of Java virtual machines, but this book focuses on the practicalities of performance tuning by examining a wide range of aspects. There are no simple recipes, tips and tricks, or algorithms to learn. Performance tuning is a process of defining and determining desired outcomes. And it requires diligence. Learn how Java

principles and technology make the best use of modern hardware and operating systems Explore several performance tests and common anti-patterns that can vex your team Understand the pitfalls of measuring Java performance numbers and the drawbacks of microbenchmarking Dive into JVM garbage collection logging, monitoring, tuning, and tools Explore JIT compilation and Java language performance techniques Learn performance aspects of the Java Collections API and get an overview of Java concurrency

## Java Performance: The Definitive Guide

### Getting the Most Out of Your Code

"O'Reilly Media, Inc." Coding and testing are often considered separate areas of expertise. In this comprehensive guide, author and Java expert Scott Oaks takes the approach that anyone who works with Java should be equally adept at understanding how code behaves in the JVM, as well as the tunings likely to help its performance. You'll gain in-depth knowledge of Java application performance, using the Java Virtual Machine (JVM) and the Java platform, including the language and API. Developers and performance engineers alike will learn a variety of features, tools, and processes for improving the way Java 7 and 8 applications perform. Apply four principles for obtaining the best results from performance testing Use JDK tools to collect data on how a Java application is performing Understand the advantages and disadvantages of using a JIT compiler Tune JVM garbage collectors to affect programs as little as possible Use techniques to manage heap memory and JVM native memory Maximize Java threading and synchronization performance features Tackle performance issues in Java EE and Java SE APIs Improve Java-driven database application performance

## Functional Programming in Java

### How functional techniques improve your Java programs

Simon and Schuster Summary Functional Programming in Java teaches Java developers how to incorporate the most powerful benefits of functional programming into new and existing Java code. You'll learn to think functionally about coding tasks in Java and use FP to make your applications easier to understand, optimize, maintain, and scale. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Here's a bold statement: learn functional programming and you'll be a better Java developer. Fortunately, you don't have to master every aspect of FP to get a big payoff. If you take in a few core principles, you'll see an immediate boost in the scalability, readability, and maintainability of your code. And did we mention that you'll have fewer bugs? Let's get started! About the Book Functional Programming in Java teaches you how to incorporate the powerful benefits of functional programming into new and existing Java code. This book uses easy-to-grasp examples, exercises, and illustrations to teach core FP principles such as referential transparency, immutability, persistence, and laziness. Along the way, you'll discover which of the new functionally inspired features of Java 8 will help you most. What's Inside Writing code that's easier to read and reason about Safer concurrent and parallel programming Handling errors without exceptions Java 8 features like lambdas, method references, and functional interfaces About the Reader Written for Java developers with no previous FP experience. About the Author Pierre-Yves Saumont is a seasoned Java developer with three decades of experience designing and building enterprise software. He is an R&D engineer at Alcatel-Lucent Submarine Networks. Table of Contents What is functional programming? Using functions in Java Making Java more functional Recursion, corecursion, and memoization Data handling with lists Dealing with optional data Handling errors and exceptions Advanced list handling Working with laziness More data handling with trees Solving real problems with advanced trees Handling state mutation in a functional way Functional input/output Sharing mutable state with actors Solving common problems functionally

## Classic Computer Science Problems in Java

Simon and Schuster Sharpen your coding skills by exploring established computer science problems! Classic Computer Science Problems in Java challenges you with time-tested scenarios and algorithms. Summary Sharpen your coding skills by exploring established computer science problems! Classic Computer Science Problems in Java challenges you with time-tested scenarios and algorithms. You'll work through a series of exercises based in computer science fundamentals that are designed to improve your software development abilities, improve your understanding of artificial intelligence, and even prepare you to ace an interview. As you work through examples in search, clustering, graphs, and more, you'll remember important things you've forgotten and discover classic solutions to your "new" problems! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Whatever software development problem you're facing, odds are someone has already uncovered a solution. This book collects the most useful solutions devised, guiding you through a variety of challenges and tried-and-true problem-solving techniques. The principles and algorithms presented here are guaranteed to save you countless hours in project after project. About the book Classic Computer Science Problems in Java is a master class in computer programming designed around 55 exercises that have been used in computer science classrooms for years. You'll work through hands-on examples as you explore core algorithms, constraint problems, AI applications, and much more. What's inside Recursion, memoization, and bit manipulation Search, graph, and genetic algorithms Constraint-satisfaction problems K-means clustering, neural networks, and adversarial search About the reader For intermediate Java programmers. About the author David Kopec is an assistant professor of Computer Science and Innovation at Champlain College in Burlington, Vermont. Table of Contents 1 Small problems 2 Search problems 3 Constraint-satisfaction problems 4 Graph problems 5 Genetic algorithms 6 K-means clustering 7 Fairly simple neural networks 8 Adversarial search 9 Miscellaneous problems 10 Interview with Brian Goetz

## Java Puzzlers

### Traps, Pitfalls, and Corner Cases

Pearson Education "Every programming language has its quirks. This lively book reveals oddities of the Java programming language through entertaining and thought-provoking programming puzzles." --Guy Steele, Sun Fellow and coauthor of The Java™ Language Specification "I laughed, I cried, I threw up (my hands in admiration)." --Tim Peierls, president, Prior Artisans LLC, and member of the JSR 166 Expert Group How well do you really know Java? Are you a code sleuth? Have you ever spent days chasing a bug caused by a trap or pitfall in Java or its libraries? Do you like brainteasers? Then this is the book for you! In the tradition of Effective Java™, Bloch and Gafter dive deep into the subtleties of the Java programming language and its core libraries. Illustrated with visually stunning optical illusions, Java™ Puzzlers features 95 diabolical puzzles that educate and entertain. Anyone with a working knowledge of Java will understand the puzzles, but even the most seasoned veteran will find them challenging. Most of the puzzles take the form of a short program whose behavior isn't what it seems. Can you figure out what it does? Puzzles are grouped loosely according to the features they use, and detailed solutions follow each puzzle. The solutions go well beyond a simple explanation of the program's behavior--they show you how to avoid the underlying traps and pitfalls for good. A handy catalog of traps and pitfalls at the back of the book provides a concise taxonomy for future reference. Solve these puzzles and you'll never again fall prey to the counterintuitive or obscure behaviors that can fool even the most experienced programmers.

## Functional Programming in Java

### Harnessing the Power Of Java 8 Lambda Expressions

Pragmatic Bookshelf Intermediate level, for programmers fairly familiar with Java, but new to the functional style of programming and lambda expressions. Get ready to program in a whole new way. Functional Programming in Java will help you quickly get on top of the new, essential Java 8 language features and the functional style that will change and improve your code. This short, targeted book will help you make the paradigm shift from the old imperative way to a less error-prone, more elegant, and concise coding style that's also a breeze to parallelize. You'll explore the syntax and semantics of lambda expressions, method and constructor references, and functional interfaces. You'll design and write applications better using the new standards in Java 8 and the JDK. Lambda expressions are lightweight, highly concise anonymous methods backed by functional interfaces in Java 8. You can use them to leap forward into a whole new world of programming in Java. With functional programming capabilities, which have been around for decades in other languages, you can now write elegant, concise, less error-prone code using standard Java. This book will guide you through the paradigm change, offer the essential details about the new features, and show you how to transition from your old way of coding to an improved style. In this book you'll see popular design patterns, such as decorator, builder, and strategy, come to life to solve common design problems, but with little ceremony and effort. With these new capabilities in hand, Functional Programming in Java will help you pick up techniques to implement designs that were beyond easy reach in earlier versions of Java. You'll see how you can reap the benefits of tail call optimization, memoization, and effortless parallelization techniques. Java 8 will change the way you write applications. If you're eager to take advantage of the new features in the language, this is the book for you. What you need: Java 8 with support for lambda expressions and the JDK is required to make use of the concepts and the examples in this book.

## Valuepack:Concurrent Programming in Java

### Design Principles and Pattern and Operating Systems (United States Edition)

Prentice Hall For one- and two-semester Operating Systems courses (in the most recent ACM/IEEE curriculum) that universities offer to juniors, seniors and graduate Computer Science students. The text goes beyond the standard coverage in operating systems courses with key chapters on multiprocessing, networking, distributed systems, performance, and security. The text features extensive, up-to-the-minute case studies on the latest versions of Linux (2.6) and Microsoft Windows XP. An abundance of charts, diagrams, illustrations and exercises (both with and without solutions) is included.

## High-Performance Java Persistence

Vlad Mihalcea A high-performance data access layer must resonate with the underlying database system. Knowing the inner workings of a relational database and the data access frameworks in use can make the difference between a high-performance enterprise application and one that barely crawls. This book is a journey into Java data access performance tuning. From connection management, to batch updates, fetch sizes and concurrency control mechanisms, it unravels the inner workings of the most common Java data access frameworks. The first part aims to reduce the gap between application developers and database administrators. For this reason, it covers both JDBC and the database fundamentals that are of paramount importance when reducing transaction response times. In this first part, you'll learn about connection management, batch updates, statement caching, result set fetching and database transactions. The second part demonstrates how you can take advantage of JPA and Hibernate without compromising application performance. In this second part, you'll learn about the most efficient Hibernate mappings (basic types, associations,

inheritance), fetching best practices, caching and concurrency control mechanisms. The third part is dedicated to jOOQ and its powerful type-safe querying capabilities, like window functions, common table expressions, upsert, stored procedures and database functions.

## Object-oriented System Development

Addison-Wesley Professional With this book, software engineers, project managers, and tool builders will be able to better understand the role of analysis and design in the object-oriented (OO) software development process. This book presents a minimum set of notions and shows the reader how to use these notions for OO software construction. The emphasis is on development principles and implementation.

## Taming Java Threads

Apress Learning how to write multithreaded applications is the key to taking full advantage of the Java platform. In Taming Java Threads, well-known columnist and Java expert Allen Holub provides Java programmers with the information they need to write real multithreaded programs with real code. Holub provides an in-depth explanation of how threads work along with information about how to solve common problems such as deadlocks and race conditions. He not only explains common problems, but also provides the uncommon solutions that mark the difference between production-level code and toy demos. While it is essential to build support for threading into a Java program from the very beginning, most books on the subjects of Java user interface construction and Java networking barely touch on threading topics. Along with being a basic Java reference, this book is a must-read for any Java developer.