Java Concurrency In Practice Brian Goetz

Asynchronous, Parallel, and Multithreaded Programming
SOA Design Patterns
Java Performance
Inside Java2 Virtual Machine W/Cd
JAVA CONCURRENCY IN PRACTICE.
Java Puzzlers
Learning Concurrent Programming in Scala
Mastering Synchronization, STM, and Actors
10th International Conference, COORDINATION 2008, Oslo, Norway, June 4-6, 2008, Proceedings
Programming Concurrency on the JVM
Java Concurrency in Practice
The Art of Multiprocessor Programming, Revised Reprint
Build Highly Efficient and Robust Applications
Harnessing the Power Of Java 8 Lambda Expressions
Vital techniques of Java 7 and polyglot programming
Java 9 Concurrency Cookbook
Java Concurrency in Practice
Programming Interviews Exposed
Foundations of Multithreaded, Parallel, and Distributed Programming
Go in Practice
Design Principles and Pattern and Operating Systems (United States Edition)
Effective Enterprise Java
Concurrency in C# Cookbook
Java Performance Tuning
Functional Programming in Java
Coordination Models and Languages
Java: The Complete Reference, Eleventh Edition
Java Concurrency in Practice
Learn PowerShell Scripting in a Month of Lunches
Object-oriented System Development
Classic Computer Science Problems in Java
A Glimpse at the Future of Programming Languages
Design Principles and Patterns
The Well-Grounded Java Developer
Beyond Java
Valuepack:Concurrent Programming in Java
The Adventure of Two Lifetimes
Secrets to Landing Your Next Job
Basic Mathematics, Books a la Carte Edition
Java" Puzzlers: Traps, Pitfalls, And Corner Cases

PAOLA PAMELA

Asynchronous, Parallel, and Multithreaded Programming Prentice Hall
Summary Discover how scripting is different from command-line PowerShell, as you explore concrete hands-on examples in this handy guide. The book includes and expands on many of the techniques presented in Learn PowerShell Toolmaking in a Month of Lunches. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Automate it! With Microsoft's PowerShell language, you can write scripts to control nearly every aspect of Windows. Just master a few straightforward scripting skills, and you'll be able to eliminate repetitive manual tasks, create custom reusable tools, and build effective pipelines and workflows. Once you start scripting in PowerShell, you'll be amazed at how many opportunities you'll find to save time and effort. About the Book Learn PowerShell Scripting in a Month of Lunches teaches you how to expand your command-line PowerShell skills into effective scripts and tools. In 27 bite-size lessons, you'll discover instantly useful techniques for writing efficient code, finding and squashing bugs, organizing your scripts into libraries, and much more. Advanced scripters will even learn to access the .NET Framework, store data long term, and create nice user interfaces. What's Inside Designing functions and scripts Effective pipeline usage Dealing with errors and bugs Professional-grade scripting practices About the Reader Written for devs and IT pros comfortable with PowerShell and Windows. About the Authors Don Jones is a PowerShell MVP, speaker, and trainer who has written dozens of books on information technology topics. Jeffery Hicks is a PowerShell MVP and an independent consultant, trainer, and author. Don and Jeff coauthored Manning's Learn Windows PowerShell in a Month of Lunches, Learn PowerShell Toolmaking in a Month of Lunches, and PowerShell in Depth. Table of Contents PART 1 - INTRODUCTION TO SCRIPTING Before you begin Setting up your scripting environment WWPD: what would PowerShell do? Review: parameter binding and the PowerShell pipeline Scripting language crash course The many forms of scripting (and which to use) Scripts and security PART 2 - BUILDING A POWERSHELL SCRIPT Always design first Avoiding bugs: start with a command Building a basic function and script module Going advanced with your function Objects: the best kind of output Using all the pipelines Simple help: making a comment Dealing with errors Filling out a manifest PART 3 - GROWN-UP SCRIPTING Changing your brain when it comes to scripting Professional-grade scripting An introduction to source control with git Pestering your script Signing your script Publishing your script PART 4 - ADVANCED TECHNIQUES Squashing bugs Making script output prettier Wrapping up the .NET Framework Storing data-not in Excel! Never the end

SOA Design Patterns Addison-Wesley Professional
"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.

Java Performance Pearson Education
Summary Go in Practice guides you through 70 real-world techniques in key areas like package management, microservice communication, and more. Following a cookbook-style Problem/Solution/Discussion format, this practical handbook builds on the foundational concepts of the Go language and introduces specific strategies you can use in your day-to-day applications. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Go may be the perfect systems language. Built with simplicity, concurrency, and modern applications in mind, Go provides the core tool set for rapidly building web, cloud, and systems applications. If you know a language like Java or C#, it's easy to get started with Go; the trick is finding the practical dirt-under-the-fingernails techniques that you need to build production-ready code. About the Book Go in Practice guides you through dozens of real-world techniques in key areas. Following a cookbook-style Problem/Solution/Discussion format, this practical handbook builds on the foundational concepts of the Go language and introduces specific strategies you can use in your day-to-day applications. You'll learn techniques for building web services, using Go in the cloud, testing and debugging, routing, network applications, and much more. After finishing this book, you will be ready to build sophisticated cloud-native Go applications. What's Inside Dozens of specific, practical Golang techniques Using Go for devops and cloudops Writing RESTful web services and microservices Practical web dev techniques About the Reader Written for experienced developers who have already started exploring Go and want to use it effectively in a production setting. About the Authors Matt Farina is a software architect at Deis. Matt Butcher is a Principal Engineer in the Advanced Technology Group at Hewlett Packard Enterprise. They are both authors, speakers, and regular open source contributors. Table of Contents PART 1 - BACKGROUND AND FUNDAMENTALS Getting into Go A solid foundation Concurrency in Go PART 2 - WELL-ROUNDED APPLICATIONS Handling errors and panic Debugging and testing PART 3 - AN INTERFACE FOR YOUR APPLICATIONS HTML and email template patterns Serving and receiving assets and forms Working with web services PART 4 - TAKING YOUR APPLICATIONS TO THE CLOUD Using the cloud Communication between cloud services Reflection and code generation

Inside Java2 Virtual Machine W/Cd "O'Reilly Media, Inc."
The #1 introduction to J2SE 1.5 and enterprise/server-side development! An international bestseller for eight years, Just Java™ 2 is the complete, accessible Java tutorial for working programmers at all levels. Fully updated and revised, this sixth edition is more than an engaging overview of Java 2 Standard Edition (J2SE 1.5) and its libraries: it’s also a practical introduction to today’s best enterprise and server-side programming techniques. Just Java™ 2, Sixth Edition, reflects both J2SE 1.5 and the latest Tomcat and servlet specifications. Extensive new coverage includes: New chapters on generics and enumerated types New coverage of Web services, with practical examples using Google and Amazon Web services Simplified interactive I/O with printf() Autoboxing and unboxing of primitive types Static imports, foreach loop construct, and other new language features Peter van der Linden delivers expert advice, clear explanations, and crisp sample programs throughout–including dozens new to this edition. Along the way, he introduces: The core language: syntax, objects, interfaces, nested classes, compiler secrets, and much more Key libraries: date and calendar, pattern matching, network software, mapped I/O, utilities and generic collections Server-side technology: network server systems, a complete tiny HTML Web server, and XML in Java Enterprise J2EE: Sql and JDBC™ tutorial, servlets and JSP and much more Client-side Java: fundamentals of JFC/Swing GUI development, new class data sharing details Companion Web Site All the book’s examples and sample programs are available at http://afu.com.

JAVA CONCURRENCY IN PRACTICE. Packt Publishing Ltd
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 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.
Learning Concurrent Programming in Scala Simon and Schuster
Summary The Well-Grounded Java Developer offers a fresh and practical look at new Java 7 features, new JVM languages, and the array of supporting technologies you need for the next generation of Java-based software. About the Book The Well-Grounded Java Developer starts with thorough coverage of Java 7 features like try-with-resources and NIO.2. You'll then explore a cross-section of emerging JVM-based languages, including Groovy, Scala, and Clojure. You will find clear examples that are practical and that help you dig into dozens of valuable development techniques showcasing modern approaches to the dev process, concurrency, performance, and much more. Written for readers familiar with Java. No experience with Java 7 or new JVM languages required. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside New Java 7 features Tutorials on Groovy, Scala, and Clojure Discovering multicore processing and concurrency Functional programming with new JVM languages Modern approaches to testing, build, and CI Table of Contents PART 1 DEVELOPING WITH JAVA 7 Introducing Java 7 New I/O PART 2 VITAL TECHNIQUES Dependency Injection Modern concurrency Class files and bytecode Understanding performance tuning PART 3 POLYGLOT PROGRAMMING ON THE JVM Alternative JVM languages Groovy: Java's dynamic friend Scala: powerful and concise Clojure: safer programming PART 4 CRAFTING THE POLYGLOT PROJECT Test-driven development Build and continuous integration Rapid web development Staying well-grounded
Mastering Synchronization, STM, and Actors "O'Reilly Media, Inc."
The ONLY complete, up-to-date guide to all aspects of Java performance • •The first one-stop guide to identifying, isolating, and fixing Java performance issues on multicore and multiprocessor processor platforms - from two of Sun's leading Java performance experts. •Includes crucial new insights into microbenchmarking found nowhere else. •Contains up-to-the-minute coverage of Java optimization, including migration of older applications. Given Java's ubiquity and indispensability, Java software performance is of crucial importance to millions of developers worldwide. The emergence of multi-core systems and the evolution of the Java platform give developers many new opportunities to optimize performance. Now, three of Sun's leading Java performance experts have written the first start-to-finish guide to optimizing Java performance in today's multi-core systems. Java Performance gives developers, designers, and architects all the information they need to leverage Java's performance and scalability abilities on any modern multicore or multiprocessor system. This book's end-to-end coverage addresses all these topics: monitoring and profiling; the effective use of garbage collection and other language features; adaptive and platform-specific tuning; techniques for maximizing scalability; and much more. The authors' extensive benchmarking coverage includes an indispensable introduction to effective microbenchmarks - including guidance on avoiding the common microbenchmarking mistakes that mislead developers into writing badlyperforming software. The book also contains a complete section on Java performance enhancement, including opportunities and challenges associated with migrating software from Java 1.4.2 and Java 5 - issues that more and more Java developers are now facing.
10th International Conference, COORDINATION 2008, Oslo, Norway, June 4-6, 2008, Proceedings Pragmatic Bookshelf
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
Programming Concurrency on the JVM Pearson Education
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 Concurrency in Practice John Wiley & Sons
This insider guide gives the understanding needed to write more effective code for Java programs and get maximum performance from Java applications. Both a tutorial and reference, the book is easy to follow for Java programmers at all levels. Readers learn what's going on underneath their Java programs as they run, and gain valuable insights into garbage collection techniques, multithreading, compilers, bytecodes, the Java interpreter and more. The accompanying CD-ROM contains numerous code examples, as well as interactive illustrations that provide valuable programming insights.
The Art of Multiprocessor Programming, Revised Reprint Simon and Schuster
The Definitive Java Programming Guide Fully updated for Java SE 11, Java: The Complete Reference, Eleventh Edition explains how to develop, compile, debug, and run Java programs. Best-selling programming author Herb Schildt covers the entire Java language, including its syntax, keywords, and fundamental programming principles. You’ll also find information on key portions of the Java API library, such as I/O, the Collections Framework, the stream library, and the concurrency utilities. Swing, JavaBeans, and servlets are examined and numerous examples demonstrate Java in action. Of course, the very important module system is discussed in detail. This Oracle Press resource also offers an introduction to JShell, Java’s interactive programming tool. Best of all, the book is written in the clear, crisp, uncompromising style that has made Schildt the choice of millions worldwide. Coverage includes: •Data types, variables, arrays, and operators•Control statements•Classes, objects, and methods•Method overloading and overriding•Inheritance•Local variable type inference•Interfaces and packages•Exception handling•Multithreaded programming•Enumerations, autoboxing, and annotations•The I/O classes•Generics•Lambda expressions•Modules•String handling•The Collections Framework•Networking•Event handling•AWT•Swing •The Concurrent API•The Stream API•Regular expressions•JavaBeans•Servlets•Much, much more Code examples in the book are available for download at www.OraclePressBooks.com.
Build Highly Efficient and Robust Applications Simon and Schuster
Software -- Programming Languages.
Harnessing the Power Of Java 8 Lambda Expressions Pearson Education
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.
Vital techniques of Java 7 and polyglot programming Springer Science & Business Media
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.
Java 9 Concurrency Cookbook Pearson Education India
"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.
Java Concurrency in Practice Elsevier
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.
Programming Interviews Exposed Pragmatic Bookshelf
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.
Foundations of Multithreaded, Parallel, and Distributed Programming Tata McGraw-Hill Education
Foundations of Multithreaded, Parallel, and Distributed Programming covers, and then applies, the core concepts and techniques needed for an introductory course in this subject. Its emphasis is on the practice and application of parallel systems, using real-world examples throughout. Greg Andrews teaches the fundamental concepts of multithreaded, parallel and distributed computing and relates them to the implementation and performance processes. He presents the appropriate breadth of topics and supports these discussions with an emphasis on performance. Features Emphasizes how to solve problems, with correctness the primary concern and performance an important, but secondary, concern Includes a number of case studies which cover such topics as pthreads, MPI, and OpenMP libraries, as well as programming languages like Java, Ada, high performance Fortran, Linda, Occam, and SR Provides examples using Java syntax and discusses how Java deals with monitors, sockets, and remote method invocation Covers current programming techniques such as semaphores, locks, barriers, monitors, message passing, and remote invocation Concrete examples are executed with complete programs, both shared and distributed Sample applications include scientific computing and distributed systems 0201357526B04062001
Go in Practice Pearson Education India
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 GPars.