

# The Java Programming Language Ken Arnold

Java Generics and Collections  
The NeWS Book  
Coders at Work  
Kotlin Cookbook  
Data Structures and Algorithms in Java  
A Practical Guide to Data Structures and Algorithms using Java  
The Java EE 6 Tutorial  
Formal Syntax and Semantics of Programming Languages  
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The Jini Specifications  
Programming Languages: Principles and Practices  
Modern Java in Action  
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Effective Java  
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Making Java Groovy  
Programming for the Java Virtual Machine  
Java Precisely  
The Java TM Programming Language  
Program Development in Java  
Functional Programming in Java  
Brilliant JavaScript

## Java Generics and Collections

Summary Making Java Groovy is a practical handbook for developers who want to blend Groovy into their day-to-day work with Java. It starts by introducing the key differences between Java and Groovy—and how you can use them to your advantage. Then, it guides you step-by-step through realistic development challenges, from web applications to web services to desktop applications, and shows how Groovy makes them easier to put into production. About this Book You don't need the full force of Java when you're writing a build script, a simple system utility, or a lightweight web app—but that's where Groovy shines brightest. This elegant JVM-based dynamic language extends and simplifies Java so you can concentrate on the task at hand instead of managing minute details and unnecessary complexity. Making Java Groov is a practical guide for developers who want to benefit from Groovy in their work with Java. It starts by introducing the key differences between Java and Groovy and how to use them to your advantage. Then, you'll focus on the situations you face every day, like consuming and creating RESTful web services, working with databases, and using the Spring framework. You'll also explore the great Groovy tools for build processes, testing, and deployment and learn how to write Groovy-based domain-specific languages that simplify Java development. Written for developers familiar with Java. No Groovy experience required. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Easier Java Closures, builders, and metaprogramming Gradle for builds, Spock for testing Groovy frameworks like Grails and Griffon About the Author Ken Kousen is an independent consultant and trainer specializing in Spring, Hibernate, Groovy, and Grails. Table of Contents PART 1: UP TO SPEED WITH GROOVY Why add Groovy to Java? Groovy by example Code-level integration Using Groovy features in Java PART 2: GROOVY TOOLS Build processes Testing Groovy and Java projects PART 3: GROOVY IN THE REAL WORLD The Spring framework Database access RESTful web services Building and testing web applications

## **The NeWS Book**

This book is an introduction to NeWS: the Networked, Extensible, Window System from Sun Microsystems. It is oriented towards people who have a basic knowledge of programming and window systems who would like to understand more about window systems in general and NeWS in particular. A significant portion of the book is devoted to an overview and history of window systems. While there is enough detail here to allow readers to write simple NeWS applications, the NeWS Reference Manual [SUN87a] should be consulted for a more complete treatment. This book was written to refer to the NeWS 1. 1 product, available from Sun and also available from several non-Sun suppliers. Shortly after this book is published, Sun will be releasing the next version of NeW- the X11/NeWS merged window system. Chapter 10 is dedicated to an overview of that product, but X11/NeWS deserves a book of its own. All the code examples in this book have been tested on both NeWS and the X11/NeWS merge. Should there be another edition of this book, we will discuss some of the new development being done in the user interface toolkit area on NeWS. Significantly, the NeWS Development Environment (NDE) is now being developed at Sun; NDE promises to eclipse existing user interface toolkit designs and window programming environments.

## **Coders at Work**

This clearly written textbook provides an accessible introduction to the three programming paradigms of object-oriented/imperative, functional, and logic programming. Highly interactive in style, the text encourages learning through practice, offering test exercises for each topic covered. Review questions and programming projects are also presented, to help reinforce the concepts outside of the classroom. This updated and revised new edition features new material on the Java implementation of the JCoCo virtual machine. Topics and features: includes review questions and solved practice exercises, with supplementary code and support files available from an associated website; presents an historical perspective on the models of computation used in implementing the programming languages used today; provides the foundations for understanding how the syntax of a language is formally defined by a grammar; illustrates how programs execute at the level of assembly language, through the implementation of a stack-based Python virtual machine called JCoCo and a Python disassembler; introduces object-oriented languages through examples in Java, functional programming with Standard ML, and programming using the logic language Prolog; describes a case study involving the development of a compiler for the high level functional language Small, a robust subset of Standard ML. Undergraduate students of computer science will find this engaging textbook to be an invaluable guide to the skills and tools needed to become a better programmer. While the text assumes some background in an imperative language, and prior coverage of the basics of data structures, the hands-on approach and easy to follow writing style will enable the reader to quickly grasp the essentials of programming languages, frameworks, and architectures.

## **Kotlin Cookbook**

The Java Virtual Machine (JVM) is the underlying technology behind Java's most distinctive features including size, security and cross-platform delivery. This guide shows programmers how to write programs for the Java Virtual Machine.

### **Data Structures and Algorithms in Java**

Praise for The Visual Basic .NET Programming Language "There is no substitute to getting the inside scoop directly from a book written by the father of a programming language such as Bjarne Stroustrup for C++, James Gosling for Java and Alan Cooper for the original version of Visual Basic. Paul Vick, the father of Visual Basic .NET, explains the whys and hows of this exciting new language better than any other human being on the planet." --Ted Pattison, Barracuda.NET "The Visual Basic .NET Programming Language includes nuances that in all my use and study of VB .NET, I haven't seen discussed anywhere else. For example, I learned that you can use the Imports statement to import an Enum name, so that you needn't refer to the enum in all its uses. In addition, I learned that the dictionary lookup operator, "!", works in VB .NET--I thought this one had been retired. In any case, if you're searching for a book that covers all the language syntax issues, and more, Paul Vick's book is a great place to look." --Ken Getz, Senior Consultant, MCW Technologies, LLC "This book is an excellent stepping stone for Visual Basic developers wanting to get their toes wet in the .NET waters. Paul's presentation of the core topics all VB developers should tackle first is clear, concise, and unlike other books in the genre, does not overwhelm the reader. The VB6 vs. VB.NET task-oriented approach guides you through the new language and OO features, and then moves to basic threading and other CLR topics--as well as to the key points in the COM to .NET transition--in a well thought-out sequence. If you've been holding out on VB .NET, this is a great book to get you started." --Klaus H. Probst, Sr. Consultant/Architect, Spherion Technology Services, Microsoft MVP "There is no shortage of VB .NET books in the market, but this is the only book straight from the creators. While that is an excellent reason in itself for reading this book, it is the brevity and clarity of the content, along with the examples, that makes this book a must-have." --Amit Kalani, Developer "Overall, I liked this book and it definitely benefited me. I learned new things I didn't see anywhere else and I'll certainly put these to good use in the future. Paul's book makes a great reference manual for intermediate and advanced VB .NET developers." --Philip Williams, System Engineer, LDC Direct "This book contains a lot of great information I have seen nowhere else and addresses issues that other books do not." --Ethan Roberts, .NET Architect, General Casualty "This book is full of useful information and provides a good historical background for the Visual Basic .NET Language." --Dave Vitter, Technical Lead Developer and author of Designing Visual Basic .NET Applications (Coriolis, 2001) The definitive Microsoft Visual Basic .NET reference--authored by Visual Basic .NET's lead architect If you want to leverage all of VB .NET's immense power, get this book. It's the definitive VB .NET reference and tutorial, and the first Visual Basic book written by one of VB .NET's lead architects. No other book offers this much behind-the-scenes insight about why VB .NET works the way it does, how it evolved, and how you can make the most of it. The Visual Basic .NET Programming Language is a superb learning tool for new VB .NET programmers and a must-have reference for developers at every level. Paul Vick presents precise language descriptions, essential reference materials, practical insights, and hundreds of code samples, straight from Microsoft's VB .NET design team. Just

some of the features include: A history and overview of Visual Basic's evolution into VB .NET Complete coverage of the language syntax Transitioning from COM to the CLR and leveraging the .NET platform Runtime functions Taking full advantage of VB .NET's object-oriented features Notes on style, design, and compatibility throughout the text Notes for the advanced user throughout the text Vick exposes VB .NET's most powerful capabilities with unprecedented depth and clarity, and packs this book with information you simply won't find anywhere else. Whether you're an experienced VB .NET programmer, upgrading from earlier versions of Visual Basic, or coming to Visual Basic and .NET for the first time, you'll find this book indispensable.

### **A Practical Guide to Data Structures and Algorithms using Java**

Although traditional texts present isolated algorithms and data structures, they do not provide a unifying structure and offer little guidance on how to appropriately select among them. Furthermore, these texts furnish little, if any, source code and leave many of the more difficult aspects of the implementation as exercises. A fresh alternative to

### **The Java EE 6 Tutorial**

Summary Enterprise Java Microservices is an example-rich tutorial that shows how to design and manage large-scale Java applications as a collection of microservices. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Large applications are easier to develop and maintain when you build them from small, simple components. Java developers now enjoy a wide range of tools that support microservices application development, including right-sized app servers, open source frameworks, and well-defined patterns. Best of all, you can build microservices applications using your existing Java skills. About the Book Enterprise Java Microservices teaches you to design and build JVM-based microservices applications. You'll start by learning how microservices designs compare to traditional Java EE applications. Always practical, author Ken Finnigan introduces big-picture concepts along with the tools and techniques you'll need to implement them. You'll discover ecosystem components like Netflix Hystrix for fault tolerance and master the Just enough Application Server (JeAS) approach. To ensure smooth operations, you'll also examine monitoring, security, testing, and deploying to the cloud. What's inside The microservices mental model Cloud-native development Strategies for fault tolerance and monitoring Securing your finished applications About the Reader This book is for Java developers familiar with Java EE. About the Author Ken Finnigan leads the Thorntail project at Red Hat, which seeks to make developing microservices for the cloud with Java and Java EE as easy as possible. Table of Contents PART 1 MICROSERVICES BASICS Enterprise Java microservices Developing a simple RESTful microservice Just enough Application Server for microservices Microservices testing Cloud native development PART 2 - IMPLEMENTING ENTERPRISE JAVA MICROSERVICES Consuming microservices Discovering microservices for consumption Strategies for fault tolerance and monitoring Securing a microservice Architecting a microservice hybrid Data streaming with Apache Kafka

## **Formal Syntax and Semantics of Programming Languages**

Kenneth Louden and Kenneth Lambert's new edition of PROGRAMMING LANGUAGES: PRINCIPLES AND PRACTICE, 3E gives advanced undergraduate students an overview of programming languages through general principles combined with details about many modern languages. Major languages used in this edition include C, C++, Smalltalk, Java, Ada, ML, Haskell, Scheme, and Prolog; many other languages are discussed more briefly. The text also contains extensive coverage of implementation issues, the theoretical foundations of programming languages, and a large number of exercises, making it the perfect bridge to compiler courses and to the theoretical study of programming languages. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

## **Inside Java 2 Platform Security**

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.

## **The Jini Specifications**

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.

### **Programming Languages: Principles and Practices**

Groovy Programming is an introduction to the Java-based scripting language Groovy. Groovy has much in common with popular scripting languages such as Perl, Python, and Ruby, but is written in a Java-like syntax. And, unlike these other languages, Groovy is sanctioned by the Java community for use on the Java platform. Since it is based on Java, applications written in Groovy can make full use of the Java Application Programmer Interfaces (APIs). This means Groovy can integrate seamlessly with applications written in Java, while avoiding the complexities of the full Java language. This bare-bones structure also means Groovy can be used as an introduction to Java and to programming in general. Its simpler constructions and modern origins make it ideal as a first language and for introducing principles such as object-oriented programming. This book introduces all the major aspects of Groovy development and emphasizes Groovy's potential as a learning tool. Case studies and exercises are included, along with numerous programming examples. The book begins assuming only a general familiarity with Java programming, and progresses to discuss advanced topics such as GUI builders, Groovlets, Unit Testing, and Groovy SQL. The first comprehensive book on Groovy programming that shows how writing applications and scripts for the Java platform is fast and easy. Written by leading software engineers and acclaimed computing instructors. Offers numerous programming examples, code samples, detailed case studies, exercises for self-study, and a companion website with a Windows-based Groovy editor.

### **Modern Java in Action**

Peter Seibel interviews 15 of the most interesting computer programmers alive today in *Coders at Work*, offering a companion volume to Apress's highly acclaimed best-seller *Founders at Work* by Jessica Livingston. As the words "at work" suggest, Peter Seibel focuses on how his interviewees tackle the day-to-day work of programming, while revealing much more, like how they became great programmers, how they recognize programming talent in others, and what kinds of problems they find most interesting. Hundreds of people have suggested names of programmers to interview on the *Coders at Work* web site:

[www.codersatwork.com](http://www.codersatwork.com). The complete list was 284 names. Having digested everyone's feedback, we selected 15 folks who've been kind enough to agree to be interviewed: Frances Allen: Pioneer in optimizing compilers, first woman to win the Turing Award (2006) and first female IBM fellow Joe Armstrong: Inventor of Erlang Joshua Bloch: Author of the Java collections framework, now at Google Bernie Cosell: One of the main software guys behind the original ARPANET IMPs and a

master debugger Douglas Crockford: JSON founder, JavaScript architect at Yahoo!  
L. Peter Deutsch: Author of Ghostscript, implementer of Smalltalk-80 at Xerox  
PARC and Lisp 1.5 on PDP-1  
Brendan Eich: Inventor of JavaScript, CTO of the Mozilla Corporation  
Brad Fitzpatrick: Writer of LiveJournal, OpenID, memcached, and Perlbal  
Dan Ingalls: Smalltalk implementor and designer  
Simon Peyton Jones: Coinventor of Haskell and lead designer of Glasgow Haskell Compiler  
Donald Knuth: Author of The Art of Computer Programming and creator of TeX  
Peter Norvig: Director of Research at Google and author of the standard text on AI  
Guy Steele: Coinventor of Scheme and part of the Common Lisp Gang of Five, currently working on Fortress  
Ken Thompson: Inventor of UNIX  
Jamie Zawinski: Author of XEmacs and early Netscape/Mozilla hacker

### **Enterprise Java Microservices**

The introduction of functional programming concepts in Java SE 8 was a drastic change for this venerable object-oriented language. Lambda expressions, method references, and streams fundamentally changed the idioms of the language, and many developers have been trying to catch up ever since. This cookbook will help. With more than 70 detailed recipes, author Ken Kousen shows you how to use the newest features of Java to solve a wide range of problems. For developers comfortable with previous Java versions, this guide covers nearly all of Java SE 8, and includes a chapter focused on changes coming in Java 9. Need to understand how functional idioms will change the way you write code? This cookbook—chock full of use cases—is for you. Recipes cover:

- The basics of lambda expressions and method references
- Interfaces in the `java.util.function` package
- Stream operations for transforming and filtering data
- Comparators and Collectors for sorting and converting streaming data
- Combining lambdas, method references, and streams
- Creating instances and extract values from Java's Optional type
- New I/O capabilities that support functional streams
- The Date-Time API that replaces the legacy Date and Calendar classes
- Mechanisms for experimenting with concurrency and parallelism

### **Digital Design, Preview Ed.**

Annotation "JavaSpaces technology is a powerful Jini service from Sun Microsystems, Inc. that facilitates building distributed applications. The JavaSpaces model provides persistent object exchange "areas" in which remote Java processes can coordinate their actions and exchange data. JavaSpaces technology supplies a necessary, cross-platform framework for distributed computing with Jini technology." "This book introduces the JavaSpaces technology architecture and provides a comprehensive description of the model. Using an example-driven approach, this book shows you how to use JavaSpaces technology to develop distributed computing applications." "JavaSpaces Principles, Patterns, and Practice also includes two full-scale applications - one collaborative and the other parallel - that demonstrate how to put the JavaSpaces model to work."--BOOK JACKET. Title Summary field provided by Blackwell North America, Inc. All Rights Reserved.

### **Effective Java**

Accompanying disk contains instructor resources, lesson plans, presentation files, test bank, solutions, and more.

### **The Java Programming Language**

This authoritative Java security book is written by the architect of the Java security model. It chronicles J2EE v1.4 security model enhancements that will allow developers to build safer, more reliable, and more impenetrable programs.

### **The Java Language Specification**

A guide for intermediate to advanced developers covers core Java fundamentals, advanced language features, classes, interfaces, class design, threading, and language statements.

### **Head First Java**

Formal Syntax and Semantics of Programming Languages: A Laboratory Based Approach presents a panorama of techniques in formal syntax, operational semantics and formal semantics. Using a teaching/learning perspective rather than a research-oriented approach, an understanding of the meta-languages is accessible to anyone with a basic grounding in discrete mathematics and programming language concepts. Throughout the book, valuable hands-on laboratory exercises provide the opportunity for practical application of difficult concepts. Various exercises and examples, implementing syntactic and semantic specifications on real systems, give students hands-on practice. Supplemental software is available on disk or via file transfer protocol. This book is suitable for an advanced undergraduate or introductory graduate level course on the formal syntax and semantics of programming languages.

### **The Go Programming Language**

Digital Design provides a modern approach to learning the increasingly important topic of digital systems design. The text's focus on register-transfer-level design and present-day applications not only leads to a better appreciation of computers and of today's ubiquitous digital devices, but also provides for a better understanding of careers involving digital design and embedded system design.

1. Introduction
2. Combinational Logic Design
3. Sequential Logic Design-Controllers
4. Datapath Components
5. Register-Transfer Level (RTL) Design
6. Optimizations and Tradeoffs
7. Physical Implementation
8. Programmable Processors
9. Hardware Description Languages

### **The Java Programming Language**

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.

### **Foundations of Programming Languages**

A systematic approach to striving for perfection in Java "TM" enterprise software! -- Principles and best-practice patterns for the key design and implementation problems facing enterprise developers. -- Effective integration of UML, object-oriented development, Java "TM," and your software development processes. -- Identifies behavioral and structural modeling techniques that deliver exceptional value. Drawing upon the experiences of hundreds of developers he has trained or worked with, Kirk Knoernschild offers a systematic guide to solving today's complex problems of Java-based enterprise application design and implementation. Knoernschild focuses on both technology and process, offering a phased approach to integrating UML, object-oriented development, and Java "TM" throughout the entire development lifecycle. Knoernschild begins by reintroducing objects and object-oriented design, presenting key concepts such as polymorphism and inheritance in terms of several powerful principles and patterns that inform the entire book. Next, he introduces the UML: how it evolved, the problems it helps to solve, and how various UML constructs can be mapped to Java. Knoernschild shows how to structure UML diagrams to more easily identify the problem being solved, introduces best practices that any software development process should promote, and shows how the UML fits with these best practices. He reviews the external considerations that impact how companies really use the UML, Java "TM," and object-based techniques, presenting a pragmatic, phased approach to integrating them with the least pain and the greatest effectiveness. The book concludes with in-depth coverage of behavioral and structural modeling, again emphasizing the principles and patterns associated with long-term success. For every Java "TM" enterprise developer, architect, analyst, and project manager.

### **Groovy Programming**

This definitive introduction and reference teaches programmers the basic and advanced features of Java. As the creators of the Java programming language, the authors help programmers understand why Java is such a powerful language.

### **Code with the Wisdom of the Crowd**

Java is a programming language for the Internet. It is a derivative of C/C++. Written from a real-world programmer perspective with insider details from two Java programmers, this text explains the design motivation of the language as well as the trade-offs involved in using specific features. The book contains practical examples concerning Java's constructs, libraries and language details.

### **Introduction to Programming in Java**

Data Structures and Algorithms in Java, Second Edition is designed to be easy to read and understand although the topic itself is complicated. Algorithms are the procedures that software programs use to manipulate data structures. Besides clear and simple example programs, the author includes a workshop as a small demonstration program executable on a Web browser. The programs demonstrate in graphical form what data structures look like and how they operate. In the second edition, the program is rewritten to improve operation and clarify the algorithms, the example programs are revised to work with the latest version of

the Java JDK, and questions and exercises will be added at the end of each chapter making the book even more useful. Educational Supplement Suggested solutions to the programming projects found at the end of each chapter are made available to instructors at recognized educational institutions. This educational supplement can be found at [www.prenhall.com](http://www.prenhall.com), in the Instructor Resource Center.

### **Modern Java Recipes**

"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! 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."--Page 4 de la couverture.

### **Fundamentals of Java**

The Go Programming Language is the authoritative resource for any programmer who wants to learn Go. It shows how to write clear and idiomatic Go to solve real-world problems. The book does not assume prior knowledge of Go nor experience with any specific language, so you'll find it accessible whether you're most comfortable with JavaScript, Ruby, Python, Java, or C++. The first chapter is a tutorial on the basic concepts of Go, introduced through programs for file I/O and text processing, simple graphics, and web clients and servers. Early chapters cover the structural elements of Go programs: syntax, control flow, data types, and the organization of a program into packages, files, and functions. The examples illustrate many packages from the standard library and show how to create new ones of your own. Later chapters explain the package mechanism in more detail, and how to build, test, and maintain projects using the go tool. The chapters on methods and interfaces introduce Go's unconventional approach to object-oriented programming, in which methods can be declared on any type and interfaces are implicitly satisfied. They explain the key principles of encapsulation, composition, and substitutability using realistic examples. Two chapters on concurrency present in-depth approaches to this increasingly important topic. The first, which covers the basic mechanisms of goroutines and channels, illustrates the style known as communicating sequential processes for which Go is renowned. The second covers more traditional aspects of concurrency with shared variables. These chapters provide a solid foundation for programmers encountering concurrency for the first time. The final two chapters explore lower-level features of Go. One covers the art of metaprogramming using reflection. The other shows how to use the unsafe package to step outside the type system for special situations, and how to use the cgo tool to create Go bindings for C libraries. The book features hundreds of interesting and practical examples of well-written Go code that cover the whole language, its most important packages, and a wide range of applications. Each chapter has exercises to test your understanding and explore extensions and

alternatives. Source code is freely available for download from <http://gopl.io/> and may be conveniently fetched, built, and installed using the go get command.

### **TCP/IP Sockets in Java**

The third edition of Java Precisely provides a concise description of the Java programming language, version 8.0. It offers a quick reference for the reader who has already learned (or is learning) Java from a standard textbook and who wants to know the language in more detail. The book presents the entire Java programming language and essential parts of the class libraries: the collection classes, the input-output classes, the stream libraries and Java 8's facilities for parallel programming, and the functional interfaces used for that. Written informally, the book describes the language in detail and offers many examples. For clarity, most of the general rules appear on left-hand pages with the relevant examples directly opposite on the right-hand pages. All examples are fragments of legal Java programs. The complete ready-to-run example programs are available on the book's website. This third edition adds material about functional parallel processing of arrays; default and static methods on interfaces; a brief description of the memory model and visibility across concurrent threads; lambda expressions, method reference expressions, and the related functional interfaces; and stream processing, including parallel programming and collectors. -- Provided by publisher.

### **Taming Java Threads**

The networking capabilities of the Java platform have been extended considerably since the first edition of the book. This new edition covers version 1.5-1.7, the most current iterations, as well as making the following improvements: The API (application programming interface) reference sections in each chapter, which describe the relevant parts of each class, have been replaced with (i) a summary section that lists the classes and methods used in the code, and (ii) a "gotchas" section that mentions nonobvious or poorly-documented aspects of the objects. In addition, the book covers several new classes and capabilities introduced in the last few revisions of the Java platform. New abstractions to be covered include `NetworkInterface`, `InterfaceAddress`, `Inet4/6Address`, `SocketAddress/InetSocketAddress`, `Executor`, and others; extended access to low-level network information; support for IPv6; more complete access to socket options; and scalable I/O. The example code is also modified to take advantage of new language features such as annotations, enumerations, as well as generics and implicit iterators where appropriate. Most Internet applications use sockets to implement network communication protocols. This book's focused, tutorial-based approach helps the reader master the tasks and techniques essential to virtually all client-server projects using sockets in Java. Chapter 1 provides a general overview of networking concepts to allow readers to synchronize the concepts with terminology. Chapter 2 introduces the mechanics of simple clients and servers. Chapter 3 covers basic message construction and parsing. Chapter 4 then deals with techniques used to build more robust clients and servers. Chapter 5 (NEW) introduces the scalable interface facilities which were introduced in Java 1.5, including the buffer and channel abstractions. Chapter 6 discusses the relationship between the programming constructs and the underlying protocol implementations in more detail. Programming concepts are introduced through simple program

examples accompanied by line-by-line code commentary that describes the purpose of every part of the program. No other resource presents so concisely or so effectively the material necessary to get up and running with Java sockets programming. Focused, tutorial-based instruction in key sockets programming techniques allows reader to quickly come up to speed on Java applications. Concise and up-to-date coverage of the most recent platform (1.7) for Java applications in networking technology.

### **Core Java 2**

Annotation "This book contains the formal specification for the core Jini connection technology, as well as specifications for local helper utilities and remote helper services. It offers a review of distributed computing fundamentals, an overview of the Jini connection architecture, and an introduction to the key concepts that are the source of the technology's simplicity and power-remote objects, leasing distributed events, and a two-phase commit protocol. The formal specifications provide the definitive description of every element of the Jini connection architecture."--BOOK JACKET. Title Summary field provided by Blackwell North America, Inc. All Rights Reserved.

### **Java For Dummies**

"Core Java 2" continues to deliver the real-world guidance developers need to build sophisticated, production-quality Java applications. Updated to cover new features and functions in Release 1.4 of J2SE, it delivers detailed coverage of object-oriented programming, reflection and proxies, interfaces and inner classes, and more.

### **Java Design**

Learning a complex new language is no easy task especially when it s an object-oriented computer programming language like Java. You might think the problem is your brain. It seems to have a mind of its own, a mind that doesn't always want to take in the dry, technical stuff you're forced to study. The fact is your brain craves novelty. It's constantly searching, scanning, waiting for something unusual to happen. After all, that's the way it was built to help you stay alive. It takes all the routine, ordinary, dull stuff and filters it to the background so it won't interfere with your brain's real work--recording things that matter. How does your brain know what matters? It's like the creators of the Head First approach say, suppose you're out for a hike and a tiger jumps in front of you, what happens in your brain? Neurons fire. Emotions crank up. Chemicals surge. That's how your brain knows. And that's how your brain will learn Java. Head First Java combines puzzles, strong visuals, mysteries, and soul-searching interviews with famous Java objects to engage you in many different ways. It's fast, it's fun, and it's effective. And, despite its playful appearance, Head First Java is serious stuff: a complete introduction to object-oriented programming and Java. You'll learn everything from the fundamentals to advanced topics, including threads, network sockets, and distributed programming with RMI. And the new. second edition focuses on Java 5.0, the latest version of the Java language and development platform. Because

Java 5.0 is a major update to the platform, with deep, code-level changes, even more careful study and implementation is required. So learning the Head First way is more important than ever. If you've read a Head First book, you know what to expect--a visually rich format designed for the way your brain works. If you haven't, you're in for a treat. You'll see why people say it's unlike any other Java book you've ever read. By exploiting how your brain works, Head First Java compresses the time it takes to learn and retain--complex information. Its unique approach not only shows you what you need to know about Java syntax, it teaches you to think like a Java programmer. If you want to be bored, buy some other book. But if you want to understand Java, this book's for you.

### **JavaSpaces Principles, Patterns, and Practice**

Brilliant JavaScript will take the reader through the necessary introductory material, and build on this to present practical applicable methods involving text, maths, numbers and much more. Further tips will be presented in boxouts and text alerts . The book follows a progression of knowledge; however will be modular in approach. A reader can jump right to the task(s) they need to learn and use. The step by step approach will make it easy to follow how JavaScript is written and implemented.

### **The Visual Basic .Net Programming Language**

Build systems faster and more effectively with Mob Programming. Mob Programming is an approach to developing software that radically reduces defects and key-person dependencies by having a group of people work together at a single machine. See how to avoid the most common pitfalls that teams make when first starting out. Discover what it takes to create and support a successful mob. Now you can take collaborative programming to the next level with Mob Programming. Mob Programming is a natural extension of the popular Pair Programming concept, and is not restricted to a specific programming language or technology. It can be used by anyone who develops software, including dev leads, software developers, and agile coaches. The more people working on a bug or feature results in fewer dependencies on individuals, and overall increased learning for everyone involved. With more eyes on the code, you'll find you develop better solutions with fewer defects. Set up your team for success by introducing Mob Programming in a way that benefits them. Create a good first Mobbing experience for your team with a template that avoids the common traps beginners may fall into. Master a collaborative and empathic mindset to help optimize the Mobbing experience. Learn how to make adjustments when things go wrong. Adapt your mobbing to different types of development tasks. Get management buy-in for your Mobbing experiment by demonstrating the benefits. Discover the equipment and resources you need, and how to adjust your workspace for an effective mob. Get important features to market sooner, squish bugs faster, and collaborate better today with Mob Programming. What You Need: All you need is three or more programmers, a meeting workspace that's large enough to accommodate your mob, and a computer on which to work.

### **Making Java Groovy**

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.

### **Programming for the Java Virtual Machine**

For nearly five years, one book has served as the definitive reference to Java for all serious developers: *The Java Language Specification*, by James Gosling, Bill Joy, and Guy Steele. Now, these world-renowned Java authorities (along with new co-author Gilad Bracha) have delivered a monumental update. This completely revised Second Edition covers the Java 2 Platform Standard Edition Version 1.3 with unprecedented depth and precision, offering the invaluable insights of Java's creators to every developer. There is no better source for learning everything about the Syntax and Semantics of the Java programming language. Developers will turn to this book again and again.

### **Java Precisely**

Written by a world-renowned expert on programming methodology, and the winner of the 2008 Turing Award, this book shows how to build production-quality programs--programs that are reliable, easy to maintain, and quick to modify. Its emphasis is on modular program construction: how to get the modules right and how to organize a program as a collection of modules. The book presents a methodology effective for either an individual programmer, who may be writing a small program or a single module in a larger one or a software engineer, who may be part of a team developing a complex program comprised of many modules. Both audiences will acquire a solid foundation for object-oriented program design and component-based software development from this methodology. Because each module in a program corresponds to an abstraction, such as a collection of documents or a routine to search the collection for documents of interest, the book first explains the kinds of abstractions most useful to programmers: procedures;

iteration abstractions; and, most critically, data abstractions. Indeed, the author treats data abstraction as the central paradigm in object-oriented program design and implementation. The author also shows, with numerous examples, how to develop informal specifications that define these abstractions--specifications that describe what the modules do--and then discusses how to implement the modules so that they do what they are supposed to do with acceptable performance. Other topics discussed include: Encapsulation and the need for an implementation to provide the behavior defined by the specification Tradeoffs between simplicity and performance Techniques to help readers of code understand and reason about it, focusing on such properties as rep invariants and abstraction functions Type hierarchy and its use in defining families of related data abstractions Debugging, testing, and requirements analysis Program design as a top-down, iterative process, and design patterns The Java programming language is used for the book's examples. However, the techniques presented are language independent, and an introduction to key Java concepts is included for programmers who may not be familiar with the language.

### **The Java TM Programming Language**

Use Kotlin to build Android apps, web applications, and more—while you learn the nuances of this popular language. With this unique cookbook, developers will learn how to apply this Java-based language to their own projects. Both experienced programmers and those new to Kotlin will benefit from the practical recipes in this book. Author Ken Kousen (Modern Java Recipes) shows you how to solve problems with Kotlin by concentrating on your own use cases rather than on basic syntax. You provide the context and this book supplies the answers. Already big in Android development, Kotlin can be used anywhere Java is applied, as well as for iOS development, native applications, JavaScript generation, and more. Jump in and build meaningful projects with Kotlin today. Apply functional programming concepts, including lambdas, sequences, and concurrency See how to use delegates, late initialization, and scope functions Explore Java interoperability and access Java libraries using Kotlin Add your own extension functions Use helpful libraries such as JUnit 5 Get practical advice for working with specific frameworks, like Android and Spring

### **Program Development in Java**

The Java EE 6 Tutorial: Basic Concepts, Fourth Edition, is a task-oriented, example-driven guide to developing enterprise applications for the Java Platform, Enterprise Edition 6 (Java EE 6). Written by members of the Java EE 6 documentation team at Oracle, this book provides new and intermediate Java programmers with a deep understanding of the platform. Starting with expert guidance on web tier technologies, including JavaServer Faces and Facelets, this book also covers building web services using JAX-WS and JAX-RS, developing business logic with Enterprise JavaBeans components, accessing databases using the Java Persistence API, securing web and enterprise applications, and using Contexts and Dependency Injection for the Java EE platform. This edition contains extensive new material throughout, including detailed introductions to the latest APIs and platform features, and instructions for using the latest versions of GlassFish Server Open Source Edition and NetBeans IDE. Key platform features covered include

Convention over configuration, so developers need specify only those aspects of an application that vary from the convention Annotated POJOs (Plain Old Java Objects) with optional XML configuration Simplified but more flexible packaging Lightweight Web Profile that is ideal for developing web applications The Java Series...from the Source Since 1996, when Addison-Wesley published the first edition of The Java Programming Language by Ken Arnold and James Gosling, this series has been the place to go for complete, expert, and definitive information on Java technology. The books in this series provide the detailed information developers need to build effective, robust, and portable applications and are an indispensable resource for anyone using the Java platform.

### **Functional Programming in Java**

By emphasizing the application of computer programming not only in success stories in the software industry but also in familiar scenarios in physical and biological science, engineering, and applied mathematics, Introduction to Programming in Java takes an interdisciplinary approach to teaching programming with the Java programming language. Interesting applications in these fields foster a foundation of computer science concepts and programming skills that students can use in later courses while demonstrating that computation is an integral part of the modern world. Ten years in development, this book thoroughly covers the field and is ideal for traditional introductory programming courses. It can also be used as a supplement or a main text for courses that integrate programming with mathematics, science, or engineering.

### **Brilliant JavaScript**

A new edition of the bestselling guide to Java If you want to learn to speak the world's most popular programming language like a native, Java For Dummies is your ideal companion. With a focus on reusing existing code, it quickly and easily shows you how to create basic Java objects, work with Java classes and methods, understand the value of variables, learn to control program flow with loops or decision-making statements, and so much more! Java is everywhere, runs on almost any computer, and is the engine that drives the coolest applications. Written for anyone who's ever wanted to tackle programming with Java but never knew quite where to begin, this bestselling guide is your ticket to success! Featuring updates on everything you'll encounter in Java 9—and brimming with tons of step-by-step instruction—it's the perfect resource to get you up and running with Java in a jiffy! Discover the latest features and tools in Java 9 Learn to combine several smaller programs to create a bigger program Create basic Java objects and reuse code Confidently handle exceptions and events If you're ready to jump into Java, this bestselling guide will help keep your head above water!

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