

Head First Java 4th Edition

Data Structures & Theory of Computation

An overview of the programming language's fundamentals covers syntax, initialization, implementation, classes, error handling, objects, applets, multiple threads, projects, and network programming. Algorithms play an important role in both the science and practice of computing. To optimally use algorithms, a deeper understanding of their logic and mathematics is essential. Beyond traditional computing, the ability to apply these algorithms to solve real-world problems is a necessary skill, and this is what this book focuses on.

With Q&A sections; helpful tips; hands-on exercises; self-tests; and example code; this practical book provides up-to-date; essential Java programming skills; and gets you started programming in Java right away. --

What will you learn from this book? Go makes it easy to build software that's simple, reliable, and efficient. And this book makes it easy for programmers like you to get started. Google designed Go for high-performance networking and multiprocessing, but—like Python and JavaScript—the language is easy to read and use. With this practical hands-on guide, you'll learn how to write Go code using clear examples that demonstrate the language in action. Best of all, you'll understand the conventions and techniques that employers want entry-level Go developers to know. Why does this book look so different? Based on the latest research in cognitive science and learning theory, HeadFirst Go uses a visually rich format to engage your mind rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multisensory learning experience is designed for the way your brain really works.

Develop the next killer Android App using Java programming! Android is everywhere! It runs more than half the smartphones in the U.S.—and Java makes it go. If you want to cash in on its popularity by learning to build Android apps with Java, all the easy-to-follow guidance you need to get started is at your fingertips. Inside, you'll learn the basics of Java and grasp how it works with Android; then, you'll go on to create your first real, working application. How cool is that? The demand for Android apps isn't showing any signs of slowing, but if you're a mobile developer who wants to get in on the action, it's vital that you get the necessary Java background to be a success. With the help of Java Programming for Android Developers For Dummies, you'll quickly and painlessly discover the ins and outs of using Java to create groundbreaking Android apps—no prior knowledge or experience required! Get the know-how to create an Android program from the ground up Make sense of basic Java development concepts and techniques Develop the skills to handle programming challenges Find out how to debug your app Don't sit back and watch other developers release apps that bring in the bucks! Everything you need to create that next killer Android app is just a page away!

What will you learn from this book? Head First Kotlin is a complete introduction to coding in Kotlin. This hands-on book helps you learn the Kotlin language with a unique method that goes beyond syntax and how-to manuals and teaches you how to think like a great Kotlin developer. You'll learn everything from language fundamentals to collections, generics, lambdas, and higher-order functions. Along the way, you'll get to play with both object-oriented and functional programming. If you want to really understand Kotlin, this is the book for you. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Kotlin uses a visually rich format to engage your mind rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multisensory learning experience is designed for the way your brain really works.

With humor and insight, the author introduces the fundamental concepts of the Java programming language, from object development to design patterns, with the help of straightforward examples. By the author of Thinking in C+++. Original. (Beginner).

The design and analysis of efficient data structures has long been recognized as a key component of the Computer Science curriculum. Goodrich, Tomassia and Goldwasser's approach to this classic topic is based on the object-oriented paradigm as the framework of choice for the design of data structures. For each ADT presented in the text, the authors provide an associated Java interface. Concrete data structures realizing the ADTs are provided as Java classes implementing the interfaces. The Java code implementing fundamental data structures in this book is organized in a single Java package, `net.datastructures`. This package forms a coherent library of data structures and algorithms in Java specifically designed for educational purposes in a way that is complimentary with the Java Collections Framework.

What will you learn from this book? If you have an idea for a killer Android app, this book will help you build your first working application in a jiffy. You'll learn hands-on how to structure your app, design interfaces, create a database, make your app work on various smartphones and tablets, and much more. It's like having an experienced Android developer sitting right next to you! All you need is some Java know-how to get started. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Android Development uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

Data is at the center of many challenges in system design today. Difficult issues need to be figured out, such as scalability, consistency, reliability, efficiency, and maintainability. In addition, we have an overwhelming variety of tools, including relational databases, NoSQL data stores, stream or batch processors, and message brokers. What are the right choices for your application? How do you make sense of all these buzzwords? In this practical and comprehensive guide, author Martin Kleppmann helps you navigate this diverse landscape by examining the pros and cons of various technologies for processing and storing data. Software keeps changing, but the fundamental principles remain the same. With this book, software engineers and architects will learn how to apply those ideas in practice, and how to make full use of data in modern applications. Peer under the hood of the systems you already use, and learn how to use and operate them more effectively Make informed decisions by identifying the strengths and weaknesses of different tools Navigate the trade-offs around consistency, scalability, fault tolerance, and complexity Understand the distributed systems research upon which modern databases are built Peek behind the scenes of major online services, and learn from their architectures

Learn key topics such as language basics, pointers and pointer arithmetic, dynamic memory management, multithreading, and network programming. Learn how to use the

compiler, the make tool, and the archiver.

What will you learn from this book? It's no secret the world around you is becoming more connected, more configurable, more programmable, more computational. You can remain a passive participant, or you can learn to code. With Head First Learn to Code you'll learn how to think computationally and how to write code to make your computer, mobile device, or anything with a CPU do things for you. Using the Python programming language, you'll learn step by step the core concepts of programming as well as many fundamental topics from computer science, such as data structures, storage, abstraction, recursion, and modularity. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Learn to Code uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

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.

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.

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(TM) 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.

A tutorial introducing Java basics covers programming principles, integrating applets with Web applications, and using threads, arrays, and sockets.

Whether you are building a personal blog or a corporate website, there is a lot more to web design than div's and CSS selectors, but what do you really need to know? With this book, you'll learn the secrets of designing effective, user-friendly sites, fro

Java continues to grow and evolve, and this cookbook continues to evolve in tandem. With this guide, you'll get up to speed right away with hundreds of hands-on recipes across a broad range of Java topics. You'll learn useful techniques for everything from string handling and functional programming to network communication. Each recipe includes self-contained code solutions that you can freely use, along with a discussion of how and why they work. If you're familiar with Java basics, this cookbook will bolster your knowledge of the language and its many recent changes, including how to apply them in your day-to-day development. This updated edition covers changes through Java 12 and parts of 13 and 14. Recipes include: Methods for compiling, running, and debugging Packaging Java classes and building applications Manipulating, comparing, and rearranging text Regular expressions for string and pattern matching Handling numbers, dates, and times Structuring data with collections, arrays, and other

types Object-oriented and functional programming techniques Input/output, directory, and filesystem operations Network programming on both client and server Processing JSON for data interchange Multithreading and concurrency Using Java in big data applications Interfacing Java with other languages

An interactive guide to the fundamentals of the Java programming language utilizes icons, cartoons, and numerous other visual aids to introduce the features and functions of Java and to teach the principles of designing and writing Java programs. Original. (Beginner)

Learn to program with C++ quickly with this helpful ForDummies guide Beginning Programming with C++ For Dummies, 2ndEdition gives you plain-English explanations of the fundamentalprinciples of C++, arming you with the skills and know-how to expertly use one of the world's most popular programming languages. You'll explore what goes into creating a program, how to put the pieces together, learn how to deal with standard programming challenges, and much more. Written by the bestselling author of C++ For Dummies, this updated guide explores the basic development concepts and techniques of C++ from a beginner's point of view, and helps make sense of the how and why of C++ programming from the ground up. Beginning with an introduction to how programming languages function, the book goes on to explore how to work with integer expressions and character expressions, keep errors out of your code, use loops and functions, divide your code into modules, and become a functional programmer. Grasp C++ programming like a pro, even if you've never written a line of code Master basic development concepts and techniques in C++ Get rid of bugs and write programs that work Find all the code from the book and an updated C++ compiler on the companion website If you're a student or first-time programmer looking to master this object-oriented programming language, Beginning Programming with C++ For Dummies, 2nd Edition has you covered.

When you need quick answers for developing or debugging Java programs, this pocket guide provides a handy reference to standard features of the Java programming language and its platform. You'll find helpful programming examples, tables, figures, and lists, as well as Java 8 features such as Lambda Expressions and the Date and Time API. It's an ideal companion, whether you're in the office, in the lab, or on the road. This book also provides material to help you prepare for the Oracle Certified Associate Java Programmer exam. Quickly find Java language details, such as naming conventions, types, statements and blocks, and object-oriented programming Get details on the Java SE platform, including development basics, memory management, concurrency, and generics Browse through information on basic input/output, NIO 2.0, the Java collections framework, and the Java Scripting API Get supplemental references to fluent APIs, third-party tools, and basics of the Unified Modeling Language (UML)

A guide to C# 3.0 and Visual Studio 2008 covers such topics as objects, data types and references, encapsulation, interfaces, exception handling, and LINQ.

What will you learn from this book? Head First PMP teaches you the latest principles and certification objectives in The PMBOK® Guide in a unique and inspiring way. This updated fourth edition takes you beyond specific questions and answers with a unique visual format that helps you grasp the big picture of project management. By putting PMP concepts into context, you'll be able to understand, remember, and apply them—not just on the exam, but on the job. No wonder so many people have used Head First PMP as their sole source for passing the PMP exam. This book will help you: Learn PMP's underlying concepts to help you understand the PMBOK principles and pass the certification exam with flying colors Get 100% coverage of the latest principles and certification objectives in The PMBOK® Guide, Sixth Edition Make use of a thorough and effective preparation guide with hundreds of practice questions and exam strategies Explore the material through puzzles, games, problems, and exercises that make learning easy and entertaining Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First PMP uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

Using research in neurobiology, cognitive science and learning theory, this text loads patterns into your brain in a way that lets you put them to work immediately, makes you better at solving software design problems, and improves your ability to speak the language of patterns with others on your team.

Head First Java A Brain-Friendly Guide"O'Reilly Media, Inc."

Looking to study up for the new J2EE 1.5 Sun Certified Web Component Developer (SCWCD) exam? This book will get you way up to speed on the technology you'll know it so well, in fact, that you can pass the brand new J2EE 1.5 exam. If that's what you want to do, that is. Maybe you don't care about the exam, but need to use servlets and JSPs in your next project. You're working on a deadline. You're over the legal limit for caffeine. You can't waste your time with a book that makes sense only AFTER you're an expert (or worse, one that puts you to sleep).

Learn how to write servlets and JSPs, what makes a web container tick (and what ticks it off), how to use JSP's Expression Language (EL for short), and how to write deployment descriptors for your web applications. Master the c:out tag, and get a handle on exactly what's changed since the older J2EE 1.4 exam. You don't just pass the new J2EE 1.5 SCWCD exam, you'll understand this stuff and put it to work immediately. Head First Servlets and JSP doesn't just give you a bunch of facts to memorize; it drives knowledge straight into your brain. You'll interact with servlets and JSPs in ways that help you learn quickly and deeply. And when you're through with the book, you can take a brand-new mock exam, created specifically to simulate the real test-taking experience.

What will you learn from this book? This brain-friendly guide teaches you everything from JavaScript language fundamentals to advanced topics, including objects, functions, and the browser's document object model. You won't just be reading—you'll be playing games, solving puzzles, pondering mysteries, and interacting with JavaScript in ways you never imagined. And you'll write real code, lots of it, so you can start building your own web applications. Prepare to open your mind as you learn (and nail) key topics including: The inner details of JavaScript How JavaScript works with the browser The secrets of JavaScript types Using arrays The power of functions How to work with objects Making use of prototypes Understanding closures Writing and testing applications What's so special about this book? We think your time is too valuable to waste struggling with new concepts. Using the latest research in cognitive science and learning theory to craft a multi-sensory learning experience, Head First JavaScript Programming uses a visually rich format designed for the way your brain works, not a text-heavy approach that puts you to sleep. This book replaces Head First JavaScript, which is now out of print.

Want to learn the Python language without slogging your way through how-to manuals? With Head First Python, you'll quickly grasp Python's fundamentals, working with the built-in data structures and functions. Then you'll move on to building your very own webapp, exploring database management, exception handling, and data wrangling. If you're intrigued by what you can do with context managers, decorators, comprehensions, and generators, it's all here. This second edition is a complete learning experience that will help you become a bonafide Python programmer in no time. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Python uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your

brain really works.

Looking for a reliable way to learn how to program on your own, without being overwhelmed by confusing concepts? Head First Programming introduces the core concepts of writing computer programs -- variables, decisions, loops, functions, and objects -- which apply regardless of the programming language. This book offers concrete examples and exercises in the dynamic and versatile Python language to demonstrate and reinforce these concepts. Learn the basic tools to start writing the programs that interest you, and get a better understanding of what software can (and cannot) do. When you're finished, you'll have the necessary foundation to learn any programming language or tackle any software project you choose. With a focus on programming concepts, this book teaches you how to: Understand the core features of all programming languages, including: variables, statements, decisions, loops, expressions, and operators Reuse code with functions Use library code to save time and effort Select the best data structure to manage complex data Write programs that talk to the Web Share your data with other programs Write programs that test themselves and help you avoid embarrassing coding errors We think your time is too valuable to waste struggling with new concepts. Using the latest research in cognitive science and learning theory to craft a multi-sensory learning experience, Head First Programming uses a visually rich format designed for the way your brain works, not a text-heavy approach that puts you to sleep.

Provides information on analyzing, designing, and writing object-oriented software.

The third edition of Java Gently by Judith Bishop continues the successful approach that made earlier versions popular and has added improvements which will maintain its place as a worldwide bestseller. Java Gently teaches the reader how to program and how to do it in the best possible style in Java. In the process, it details the fundamental structures of the Java 2 language and most of its core libraries and utilities. The book covers object-orientation, software design, structured programming, graphical user interfacing, event-driven programming, networking, and an introduction to data structures. Java Gently gets students started on meaningful input/output in an object-oriented way without hiding basic concepts. Applets, multimedia, graphics, and networking are introduced as students encounter and can handle classes, objects, instantiation, and inheritance. The textbook's excellent pedagogy reinforces understanding and demonstrates good programming practice. The three kinds of diagrams include model, form, and algorithm diagrams. The fully worked examples have been carefully chosen to illustrate recently introduced concepts and solve real-world problems in a user-friendly manner. End of chapter multiple choice quizzes and problems allow students to test their comprehension of the material. Features - NEW! Updated for Java 2 including an introduction to the Swing set - NEW! Model diagrams easier to draw and brought into line with UML-based notation - NEW!

Expanded form diagrams include a semantics section and are collected at the end of the book as a useful reference - NEW! A Web site containing quizzes, examples, FAQs, a discussion board and emailcontact with the author and the Java Gently team can be found at www.booksites.net Java Gently is intended for first time programmers as well as those fascinated by the possibilities of Java and the Internet. Judith Bishop is Professor of Computer Science at the University of Pretoria, and has a wealth of experience teaching programming to undergraduates. She is the author of nine other textbooks. She serves on IFIP and IEEE committees concerned with the technical programming issues and the worldwide promotion of computing.

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.

JAVA PROGRAMMING, Sixth Edition provides the beginning programmer with a guide to developing applications using the Java programming language. Java is popular among professional programmers because it can be used to build visually interesting GUI and Web-based applications. Java also provides an excellent environment for the beginning programmer -- students can quickly build useful programs while learning the basics of structured and object-oriented programming techniques. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Java is the preferred language for many of today's leading-edge technologies—everything from smartphones and game consoles to robots, massive enterprise systems, and supercomputers. If you're new to Java, the fourth edition of this bestselling guide provides an example-driven introduction to the latest language features and APIs in Java 6 and 7. Advanced Java developers will be able to take a deep dive into areas such as concurrency and JVM enhancements. You'll learn powerful new ways to manage resources and exceptions in your applications, and quickly get up to speed on Java's new concurrency utilities, and APIs for web services and XML. You'll also find an updated tutorial on how to get started with the Eclipse IDE, and a brand-new introduction to database access in Java.

Your one-stop guide to programming with Java If you've always wanted to program with Java but didn't know where to start, this will be the java-stained reference you'll turn to again and again. Fully updated for the JDK 9, this deep reference on the world's most popular programming language is the perfect starting point for building things with Java—and an invaluable ongoing reference as you continue to deepen your knowledge. Clocking in at over 900 pages, Java All-in-One For Dummies takes the intimidation out of learning Java and offers clear, step-by-step guidance on how to download and install Java tools; work with variables, numbers, expressions, statements, loops, methods, and exceptions; create applets, servlets, and JavaServer pages; handle and organize data; and so much more. Focuses on the vital information that enables you to get up and running quickly with Java Provides details on the new features of JDK 9 Shows you how to create simple Swing programs Includes design tips on layout, buttons, and labels Everything you need to know to program with Java is included in this practical, easy-to-use guide! Looks at the principles and clean code, includes case studies showcasing the practices of writing clean code, and contains a list of heuristics and "smells" accumulated from the process of writing clean code.

The Definitive Java Programming Guide In Java: The Complete Reference, Eighth Edition, bestselling programming author Herb Schildt shows you everything you need to develop, compile, debug, and run Java programs. Updated for Java Platform, Standard Edition 7 (Java SE 7), this comprehensive volume covers the entire Java language, including its syntax, keywords, and fundamental programming principles. You'll also find information on key elements of the Java API library. JavaBeans, servlets, applets, and Swing are examined and real-world examples demonstrate Java in action. In addition, new Java SE 7 features such as try-with-resources, strings in switch, type inference with the diamond operator, NIO.2, and the Fork/Join Framework

are discussed in detail. Coverage includes: Data types and operators Control statements Classes and objects Constructors and methods Method overloading and overriding Interfaces and packages Inheritance Exception handling Generics Autoboxing Enumerations Annotations The try-with-resources statement Varargs Multithreading The I/O classes Networking The Collections Framework Applets and servlets JavaBeans AWT and Swing The Concurrent API Much, much more

Head First C# is a complete learning experience for learning how to program with C#, XAML, the .NET Framework, and Visual Studio. Fun and highly visual, this introduction to C# is designed to keep you engaged and entertained from first page to last. Updated for Windows 8.1 and Visual Studio 2013, and includes projects for all previous versions of Windows (included in the book, no additional downloading or printing required). You'll build a fully functional video game in the opening chapter, and then learn how to use classes and object-oriented programming, draw graphics and animation, and query data with LINQ and serialize it to files. And you'll do it all by creating games, solving puzzles, and doing hands-on projects. By the time you're done, you'll be a solid C# programmer—and you'll have a great time along the way! Create a fun arcade game in the first chapter, and build games and other projects throughout the book Learn how to use XAML to design attractive and interactive pages and windows Build modern Windows Store apps using the latest Microsoft technology Learn WPF (Windows Presentation Foundation) using the downloadable WPF Learner's Guide Using the Model-View-ViewModel (MVVM) pattern to create robust architecture Build a bonus Windows Phone project and run it in the Visual Studio Windows Phone emulator Projects in the book work with all editions of Visual Studio, including the free Express editions.

What will you learn from this book? Dive into C# and create apps, user interfaces, games, and more using this fun and highly visual introduction to C#, .NET Core, and Visual Studio. With this completely updated guide, which covers C# 8.0 and Visual Studio 2019, beginning programmers like you will build a fully functional game in the opening chapter. Then you'll learn how to use classes and object-oriented programming, create 3D games in Unity, and query data with LINQ. And you'll do it all by solving puzzles, doing hands-on exercises, and building real-world applications. By the time you're done, you'll be a solid C# programmer--and you'll have a great time along the way! What's so special about this book? Based on the latest research in cognitive science and learning theory, Head First C# uses a visually rich format to engage your mind rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multisensory learning experience is designed for the way your brain really works.

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