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Core Java, Volume II--Advanced Features Cay S. Horstmann 2019-02-11 The #1 Guide to Advanced Java Programming, Fully Updated for Java 11 Core Java has long been recognized as the leading, no-nonsense tutorial and reference for experienced programmers who want to write robust Java code for real-world applications. Now, Core Java, Volume II—Advanced Features, Eleventh Edition, has been updated for Java 11, with up-to-date coverage of advanced UI and enterprise programming, networking, security, and Java's powerful new module system. Cay S. Horstmann explores sophisticated new language and library features with the depth and completeness that readers expect from Core Java. He demonstrates how to use these features to build professional-quality applications, using thoroughly tested examples that reflect modern Java style and best practices, including modularization. Horstmann's examples are carefully crafted for easy understanding and maximum practical value, so you can consistently use them to jump-start your own code. Master advanced techniques, idioms, and best practices for writing superior Java code Take full advantage of modern Java I/O APIs, object serialization, and regular expressions Efficiently connect to network services, implement network clients and servers, and harvest web data Query databases and manage database connections with the latest version of JDBC Simplify all aspects of date and time programming with the Java Date and Time API Write internationalized programs that localize dates, times, numbers, text, and GUIs Process code in three powerful ways: the scripting API, compiler API, and annotation processing Learn how to migrate legacy code to the Java Platform Module System Leverage the modern Java security features most valuable to application programmers Program advanced client-side user interfaces, and generate images on the server Use JNI to interoperate with native C code See Core Java, Volume I—Fundamentals, Eleventh Edition (ISBN-13: 978-0-13-516630-7), for expert coverage of fundamental Java and UI programming, including objects, generics, collections, lambda expressions, Swing design, concurrency, and functional programming. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details. **Scala Design Patterns** Ivan Nikolov 2016-02-29 Write efficient, clean, and reusable code with Scala About This Book Unleash the power of Scala and apply it in the real world Increase your efficiency by leveraging the power

of Creational, Structural, Behavioural, and Functional design patterns Build object oriented and functional applications quickly and effectively Who This Book Is For If you want to increase your understanding of Scala and apply it to real-life application development, then this book is for you. We've also designed the book to be used as a quick reference guide while creating applications. Previous Scala programming knowledge is expected. What You Will Learn Immerse yourself in industry-standard design patterns—structural, creational, and behavioral—to create extraordinary applications Feel the power of traits and their application in Scala Implement abstract and self types and build clean design patterns Build complex entity relationships using structural design patterns Create applications faster by applying functional design patterns In Detail Scala has become increasingly popular in many different IT sectors. The language is exceptionally feature-rich which helps developers write less code and get faster results. Design patterns make developer's lives easier by helping them write great software that is easy to maintain, runs efficiently and is valuable to the company or people concerned. You will learn about the various features of Scala and be able to apply well-known, industry-proven design patterns in your work. The book starts off by focusing on some of the most interesting features of Scala while using practical real-world examples. We will also cover the popular "Gang of Four" design patterns and show you how to incorporate functional patterns effectively. By the end of this book, you will have enough knowledge and understanding to quickly assess problems and come up with elegant solutions. Style and approach The design patterns in the book will be explained using real-world, step-by-step examples. For each design pattern, there will be hints about when to use it and when to look for something more suitable. This book can also be used as a practical guide, showing you how to leverage design patterns effectively.
Java Concepts Cay S. Horstmann 2005-01-04 Building on its reputation for sound pedagogy, carefully developed exercises and examples, and a strong emphasis on problem solving, Computing Concepts With Java Essentials, 4E, this new edition applies Horstmann's proven formula to the new release of Java. Rather than simply teaching about Java, Cay Horstmann shows readers how to think like programmers, using the most current version of the Java language (Java 2.0). Throughout the text, he uses his many years of experience as a career programmer and teacher to bring out the most important elements of computing, problem solving, and program design.Computing Concepts with Java Essentials introduces carefully selected topics that are crucial to learning how to program

Core Java Cay S. Horstmann 2018-08-17 Core Java has long been recognised as the leading no-nonsense tutorial and reliable reference. It carefully explains the most important language and library features and shows how to build real-world applications with thoroughly tested examples. The example programs have been carefully crafted to be easy to understand as well as useful in practice, so you can rely on them as the starting point for your own code. All of the code examples have been rewritten to reflect modern Java best practices and code style. The critical new features introduced with Java SE 9 are all thoroughly explored with the depth and completeness that readers expect from this title. Core Java Volume I walks readers through the all details and takes a deep dive into the most critical features of the language and core libraries. This guide will help you Leverage your existing programming knowledge to quickly master core Java syntax Understand how encapsulation, classes, and inheritance work in Java Master interfaces, inner classes, and lambda expressions for functional programming Improve program robustness with exception handling and effective debugging Write safer, more readable programs with generics and strong typing Use pre-built collections to collect multiple objects for later retrieval Master concurrent programming techniques from the ground up Build modern cross-platform GUIs with standard Swing components Deploy configurable applications and applets, and deliver them across the Internet Simplify concurrency and enhance performance with new functional techniques

97 Things Every Programmer Should Know Kevlin Henney 2010-02-05 Tap into the wisdom of experts to learn what every programmer

should know, no matter what language you use. With the 97 short and extremely useful tips for programmers in this book, you'll expand your skills by adopting new approaches to old problems, learning appropriate best practices, and honing your craft through sound advice. With contributions from some of the most experienced and respected practitioners in the industry--including Michael Feathers, Pete Goodliffe, Diomidis Spinellis, Cay Horstmann, Verity Stob, and many more--this book contains practical knowledge and principles that you can apply to all kinds of projects. A few of the 97 things you should know: "Code in the Language of the Domain" by Dan North "Write Tests for People" by Gerard Meszaros "Convenience Is Not an -ility" by Gregor Hohpe "Know Your IDE" by Heinz Kabutz "A Message to the Future" by Linda Rising "The Boy Scout Rule" by Robert C. Martin (Uncle Bob) "Beware the Share" by Udi Dahan

Core Java for the Impatient Cay S. Horstmann 2014-09-11 The release of Java SE 8 introduced significant enhancements that impact the Core Java technologies and APIs at the heart of the Java platform. Many old Java idioms are no longer required and new features like lambda expressions will increase programmer productivity, but navigating these changes can be challenging. Core Java� for the Impatient is a complete but concise guide to Java SE 8. Written by Cay Horstmann--the author of Java SE 8 for the Really Impatient and Core Java(tm), the classic, two-volume introduction to the Java language--this indispensable new tutorial offers a faster, easier pathway for learning the language and libraries. Given the size of the language and the scope of the new features introduced in Java SE 8, there's plenty of material to cover, but it's presented in small chunks organized for quick access and easy understanding. If you're an experienced programmer, Horstmann's practical insights and sample code will help you quickly take advantage of lambda expressions (closures), streams, and other Java language and platform improvements. Horstmann covers everything developers need to know about modern Java, including Crisp and effective coverage of lambda expressions, enabling you to express actions with a concise syntax A thorough introduction to the new streams API, which makes working with data far more flexible and efficient A treatment of concurrent programming that encourages you to design your programs in terms of cooperating tasks instead of low-level threads and locks Up-to-date coverage of new libraries like Date and Time Other new features that will be especially valuable for server-side or mobile programmers Whether you are just getting started with modern Java or are an experienced developer, this guide will be invaluable for anyone who wants to write tomorrow's most robust, efficient, and secure Java code.

Seriously Good Software Marco Faella 2020-03-24 Summary Serious developers know that code can always be improved. With each iteration, you make optimizations—small and large—that can have a huge impact on your application's speed, size, resilience, and maintainability. In Seriously Good Software: Code that Works, Survives, and Wins, author, teacher, and Java expert Marco Faella teaches you techniques for writing better code. You'll start with a simple application and follow it through seven careful refactorings, each designed to explore another dimension of quality. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Great code blends the skill of a programmer with the time-tested techniques and best practices embraced by the entire development community. Although each application has its own context and character, some dimensions of quality are always important. This book concentrates on eight pillars of seriously good software: speed, memory usage, reliability, readability, thread safety, generality, and elegance. The Java-based examples demonstrate techniques that apply to any OO language. About the book Seriously Good Software is a handbook for any professional developer serious about improving application quality. It explores fundamental dimensions of code quality by enhancing a simple implementation into a robust, professional-quality application. Questions, exercises, and Java-based examples ensure you'll get a firm grasp of the concepts as you go. When you finish the last version of the book's central project, you'll be able to confidently choose the

right optimizations for your code. What's inside Evaluating software qualities Assessing trade-offs and interactions Fulfilling different objectives in a single task Java-based exercises you can apply in any OO language About the reader For web developers comfortable with JavaScript and HTML. About the author Marco Faella teaches advanced programming at a major Italian university. His published work includes peer-reviewed research articles, a Java certification manual, and a video course. Table of Contents *Part 1: Preliminaries * 1 Software qualities and a problem to solve 2 Reference implementation *Part 2: Software Qualities* 3 Need for speed: Time efficiency 4 Precious memory: Space efficiency 5 Self-conscious code: Reliability through monitoring 6 Lie to me: Reliability through testing 7 Coding aloud: Readability 8 Many cooks in the kitchen: Thread safety 9 Please recycle: Reusability

Big Java Cay S. Horstmann 2009-12-30 This book introduces programmers to objects at a gradual pace. The syntax boxes are revised to show typical code examples rather than abstract notation. This includes optional example modules using Alice and Greenfoot. The examples feature annotations with dos and don'ts along with cross references to more detailed explanations in the text. New tables show a large number of typical and cautionary examples. New programming and review problems are also presented that ensure a broad coverage of topics. In addition, Java 7 features are included to provide programmers with the most up-to-date information.

Java Concepts Cay S. Horstmann 2017-05-01 Java Concepts: Late Objects, 3rd Edition focuses on the essentials of effective learning and is suitable for a two-semester introduction to programming sequence. This text requires no prior programming experience and only a modest amount of high school algebra. It provides an approachable introduction to fundamental programming techniques and design skills, helping students master basic concepts and become competent coders. Each important concept is introduced in easy-to understand terms before more complicated examples are discussed. Choosing the enhanced eText format allows students to develop their coding skills using targeted, progressive interactivities designed to integrate with the eText. All sections include built-in activities, open-ended review exercises, programming exercises, and projects to help students practice programming and build confidence. These activities go far beyond simplistic multiple-choice questions and animations. They have been designed to guide students along a learning path for mastering the complexities of programming. Students demonstrate comprehension of programming structures, then practice programming with simple steps in scaffolded settings, and finally write complete, automatically graded programs. The perpetual access VitalSource Enhanced eText, when integrated with your school's learning management system, provides the capability to monitor student progress in VitalSource SCORECenter and track grades for homework or participation. *Enhanced eText and interactive functionality available through select vendors and may require LMS integration approval for SCORECenter.

Big Java Late Objects, 2nd Edition Cay S. Horstmann 2016-11-16 Cay Horstmann's Big Java Late Objects, 2nd Edition provides a comprehensive and approachable introduction to fundamental programming techniques and design skills, and helps students master basic concepts and become competent coders. The inclusion of advanced chapters makes the text suitable for a 2 or 3-term sequence, or as a comprehensive reference to programming in Python. Major rewrites and an updated visual design make this student-friendly text even more engaging. Filled with realistic programming examples, a great quantity and variety of homework assignments, and lab exercises that build student problem-solving abilities, it is no surprise Bi Java Late Objects is the number one text for early objects in the Python market.

Head First Object-Oriented Analysis and Design Brett McLaughlin 2006-11-27 "Head First Object Oriented Analysis and Design is a refreshing look at subject of OOAD. What sets this book apart is its focus on learning. The authors have made the content of OOAD accessible, usable for the practitioner." Ivar Jacobson, Ivar Jacobson Consulting "I just finished reading HF OOA&D and I loved it! The thing I liked most about this book was its focus on why we do OOA&D-to

write great software!" Kyle Brown, Distinguished Engineer, IBM "Hidden behind the funny pictures and crazy fonts is a serious, intelligent, extremely well-crafted presentation of OO Analysis and Design. As I read the book, I felt like I was looking over the shoulder of an expert designer who was explaining to me what issues were important at each step, and why." Edward Sciore,Associate Professor, Computer Science Department, Boston College Tired of reading Object Oriented Analysis and Design books that only makes sense after you're an expert? You've heard OOA&D can help you write great software every time-software that makes your boss happy, your customers satisfied and gives you more time to do what makes you happy. But how? Head First Object-Oriented Analysis & Design shows you how to analyze, design, and write serious object-oriented software: software that's easy to reuse, maintain, and extend; software that doesn't hurt your head; software that lets you add new features without breaking the old ones. Inside you will learn how to: Use OO principles like encapsulation and delegation to build applications that are flexible Apply the Open-Closed Principle (OCP) and the Single Responsibility Principle (SRP) to promote reuse of your code Leverage the power of design patterns to solve your problems more efficiently Use UML, use cases, and diagrams to ensure that all stakeholders arecommunicating clearly to help you deliver the right software that meets everyone's needs. By exploiting how your brain works, Head First Object-Oriented Analysis & Design compresses the time it takes to learn and retain complex information. Expect to have fun, expect to learn, expect to be writing great software consistently by the time you're finished reading this!
Core Java Volume I--Fundamentals Cay S. Horstmann 2018-08-14 The #1 Guide for Serious Programmers: Fully Updated for Java SE 9, 10 & 11 Cay Horstmann's Core Java, Volume I—Fundamentals, Eleventh Edition, is the definitive guide to writing robust, maintainable code with the Java SE 9, 10, and 11 language and libraries. Horstmann writes for serious programmers who use Java in production projects, and need a deep, practical understanding of the language and API. Throughout, he delivers what you need most:

hundreds of real (non-toy) examples revealing the most powerful, effective ways to get the job done. Updated examples reflect the new var keyword and take advantage of improvements in the Java API. You'll learn how to use JShell's new Read-Eval-Print Loop (REPL) for more rapid and exploratory development, and apply new features of the APIs for streams, input/output, processes, and concurrency. In this first of two volumes, Horstmann offers in-depth coverage of fundamental Java and UI programming, including object-oriented programming, generics, collections, lambda expressions, Swing design, concurrency, and functional programming. If you're an experienced programmer moving to Java SE 9, 10, or 11, there's no better source for expert insight, solutions, and code. Master foundational techniques, idioms, and best practices for writing superior Java code Efficiently implement encapsulation and inheritance Use sound principles of object-oriented design Leverage the full power of objects with interfaces, lambda expressions, and inner classes Harden programs through effective exception handling and debugging Write safer, more reusable code with generic programming Improve performance and efficiency with Java's standard collections Build cross-platform GUIs with the Swing toolkit Fully utilize multicore processors with Java's improved concurrency See Core Java, Volume II—Advanced Features, Eleventh Edition (ISBN-13: 978-0-13-516631-4), for expert coverage of Java 9, 10, and 11 enterprise features, the module system, annotations, networking, security, and advanced UI programming. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.
Brief Java Cay S. Horstmann 2019-04-26 Brief Java: Early Objects, 9th Edition focuses on the essentials of effective learning and is suitable for a two-semester introduction to programming sequence. This text requires no prior programming experience and only a modest amount of high school algebra. Objects and classes from the standard library are used where appropriate in early sections with coverage on object-oriented design starting in Chapter 8. This gradual approach allows students to use

objects throughout their study of the core algorithmic topics, without teaching bad habits that must be un-learned later. Choosing the enhanced eText format allows students to develop their coding skills using targeted, progressive interactivities designed to integrate with the eText. All sections include built-in activities, open-ended review exercises, programming exercises, and projects to help students practice programming and build confidence. These activities go far beyond simplistic multiple-choice questions and animations. They have been designed to guide students along a learning path for mastering the complexities of programming. Students demonstrate comprehension of programming structures, then practice programming with simple steps in scaffolded settings, and finally write complete, automatically graded programs. The perpetual access VitalSource Enhanced eText, when integrated with your school's learning management system, provides the capability to monitor student progress in VitalSource SCORECenter and track grades for homework or participation. Enhanced eText and interactive functionality available through select vendors and may require LMS integration approval for SCORECenter.

Thinking in Java Bruce Eckel 2003 An overview of the programming language's fundamentals covers syntax, initialization, implementation, classes, error handling, objects, applets, multiple threads, projects, and network programming.

Java For Everyone Cay S. Horstmann 2012-01-11 This text is an unbound, binder-ready edition. Java For Everyone, 2nd Edition is a comprehensive introduction to Java and computer programming, which focuses on the principles of programming, software engineering, and effective learning. It is designed for a one-semester, mixed-major, first course in programming. Nobody supports your desire to teach students good programming skills like Cay Horstmann. Active in both the classroom and the software industry, Horstmann knows that meticulous coding-not shortcuts-is the base upon which great programmers are made. Using an innovative visual design that leads students step-by-step through intricacies of Java programming, Java For Everyone, 2nd

Edition instills confidence in beginning programmers and confidence leads to success. *Scala for the Impatient* Cay S. Horstmann 2012-03-08 Scala is a modern programming language for the Java Virtual Machine (JVM) that combines the best features of object-oriented and functional programming languages. Using Scala, you can write programs more concisely than in Java, as well as leverage the full power of concurrency. Since Scala runs on the JVM, it can access any Java library and is interoperable with Java frameworks. Scala for the Impatient concisely shows developers what Scala can do and how to do it. In this book, Cay Horstmann, the principal author of the international best-selling Core Java™, offers a rapid, code-based introduction that's completely practical. Horstmann introduces Scala concepts and techniques in "blog-sized" chunks that you can quickly master and apply. Hands-on activities guide you through well-defined stages of competency, from basic to expert. Coverage includes Getting started quickly with Scala's interpreter, syntax, tools, and unique idioms Mastering core language features: functions, arrays, maps, tuples, packages, imports, exception handling, and more Becoming familiar with object-oriented programming in Scala: classes, inheritance, and traits Using Scala for real-world programming tasks: working with files, regular expressions, and XML Working with higher-order functions and the powerful Scala collections library Leveraging Scala's powerful pattern matching and case classes Creating concurrent programs with Scala actors Implementing domain-specific languages Understanding the Scala type system Applying advanced "power tools" such as annotations, implicits, and delimited continuations Scala is rapidly reaching a tipping point that will reshape the experience of programming. This book will help object-oriented programmers build on their existing skills, allowing them to immediately construct useful applications as they gradually master advanced programming techniques.

Brief C++ Cay S. Horstmann 2017-12-18 Brief C++: Late Objects provides an introduction to C++ and computer programming that focuses on the essentials and on effective learning. It is suitable for a one-semester introduction to C++ programming for students in computer science,

engineering, technology, and the physical sciences. The title requires no prior programming experience and takes a traditional route, first stressing control structures, procedural decomposition and array algorithms. Objects are used where appropriate in early sections of the program. Students begin designing and implementing their own classes in Section 9. All sections include many different forms of guidance to help students build confidence and tackle the task at hand, including Self Check and Practice activities along with end-of-section Review Exercises, Practice Exercises and Programming Projects. The Enhanced E-Text is also available bundled with an abridged print companion and can be ordered by contacting customer service here: ISBN: 9781119455639 Price: $81.95 Canadian Price: $91.50

Core Java for the Impatient Cay Horstmann 2022-11-03 Clear, Concise Guide to the Core Language and Libraries--Updated through Java 17 Modern Java introduces major enhancements that impact the core Java technologies and APIs at the heart of the Java platform. Many old Java idioms are no longer needed, and new features and programming paradigms can make you far more effective. However, navigating these changes can be challenging. Core Java for the Impatient, Third Edition, is a complete yet concise guide that reflects all changes through Java SE 17, Oracle's latest Long-Term Support (LTS) release. Written by Cay S. Horstmann-- author of the classic two-volume Core Java--this indispensable tutorial offers a faster, easier pathway for learning modern Java. Horstmann covers everything working developers need to know, including the powerful concepts of lambda expressions and streams, modern constructs such as records and sealed classes, and sophisticated concurrent programming techniques. Given Java SE 17's size and scope, there's plenty to cover, but it's presented in small chunks organized for quick access and easy understanding, with plenty of practical insights and sample code to help you quickly apply all that's new. Use modules to simplify the development of well-performing complex systems Work with the modularized Java API and third-party modules Test code as you create it with JShell Read-Eval-Print Loop (REPL)

Improve your control over inheritance with sealed classes Use lambda expressions to express actions more concisely Streamline and optimize data management with the Streams API Use new library features and threadsafe data structures to implement concurrency more reliably Take advantage of API improvements for working with collections, input/output, regular expressions, and processes Whether you're an experienced developer just getting started with modern Java, or have been programming with Java for years, this guide will help you write more robust, efficient, and secure Java code.

Object-oriented Design in Java Stephen Gilbert 1998 Mitchell Waite Signature Series: Object-Oriented Design in Java takes a tutorial approach and teaches in a new way: by offering the Java code first and the design representations and explanations later. No other programming-level book on the market deals with design of Java software. There's nothing aimed at the in the trenches Java programmer. Nor can the Java programmer turn to general books on software design. These, with few exceptions, are abstract and academic, either incomprehensible or irrelevant from the perspective of the working programmer. This book targets the needs of Java application programmers, using an experience-based, hands-on approach.

Modern JavaScript for the Impatient Cay S. Horstmann 2020-03-17 8+ Hours of Video Instruction It can be difficult for developers familiar with Java and other languages to make the transition to modern JavaScript. If you simply want to be productive with JavaScript as it exists today, then you don't want to relive history with books or courses that teach older JavaScript versions, or that assume familiarity with those older versions and focus on recently introduced features. This course assumes that you are a competent programmer who understands branches and loops, functions, data structures, and the basics of object-oriented programming. You will get up to speed with modern JavaScript in the shortest possible time. Description Modern JavaScript for the Impatient LiveLessons focuses on how to be productive with JavaScript as it exists today. After reviewing the fundamentals of values, variables, and control flow, the video thoroughly covers

functions, objects, and classes. The standard library and the most commonly used tools are also covered, as well as key topics related to asynchronous programming, internationalization, and modules. Related Content This training pairs with Cay Horstmann's book Modern JavaScript for the Impatient (9780136502142) About the Instructor Cay S. Horstmann is a professor of computer science at San Jose State University and a Java Champion. He is also the author of Core Java, Volume II,ÄîFundamentals, Eleventh Edition (2019); Core Java, Volume I,ÄîFundamentals, Eleventh Edition (2018); Core Java SE 9 for the Impatient, Second Edition (2018); Java SE 8 for the Really Impatient (2014); and Scala for the Impatie nt (2012). He has written more than a dozen other books for professional programmers and computer science students. What You Will Learn After starting with the basics-JavaScript values, variables, and types, and a quick overview of expressions and the various type of flow control statements-Horstmann shows viewers how to implement functions that consume and produce other functions and how to use closures to implement a form of classes before moving on to more advanced topics including: Object-oriented programming with modern JavaScript (classes and inheritance and how these are implemented with prototypes) The standard library (numbers and dates, strings and regular expressions, as well as arrays and collections.) Metaprogramming, iterators, and generators (a powerful mechanism to bridge between linear and event-driven control flow) How to use proxies to inter...

UML @ Classroom Martina Seidl 2015-02-21 This textbook mainly addresses beginners and readers with a basic knowledge of object-oriented programming languages like Java or C#, but with little or no modeling or software engineering experience – thus reflecting the majority of students in introductory courses at universities. Using UML, it introduces basic modeling concepts in a highly precise manner, while refraining from the interpretation of rare special cases. After a brief explanation of why modeling is an indispensable part of software development, the authors introduce the individual diagram types of UML (the class and object diagram, the sequence diagram, the state machine diagram, the activity diagram, and the use case diagram), as well as their interrelationships, in a step-by-step manner. The topics covered include not only the syntax and the semantics of the individual language elements, but also pragmatic aspects, i.e., how to use them wisely at various stages in the software development process. To this end, the work is complemented with examples that were carefully selected for their educational and illustrative value. Overall, the book provides a solid foundation and deeper understanding of the most important object-oriented modeling concepts and their application in software development. An additional website offers a complete set of slides to aid in teaching the contents of the book, exercises and further e-learning material.

Facts and Fallacies of Software Engineering Robert L. Glass 2003 The practice of building software is a "new kid on the block" technology. Though it may not seem this way for those who have been in the field for most of their careers, in the overall scheme of professions, software builders are relative "newbies." In the short history of the software field, a lot of facts have been identified, and a lot of fallacies promulgated. Those facts and fallacies are what this book is about. There's a problem with those facts–and, as you might imagine, those fallacies. Many of these fundamentally important facts are learned by a software engineer, but over the short lifespan of the software field, all too many of them have been forgotten. While reading Facts and Fallacies of Software Engineering , you may experience moments of "Oh, yes, I had forgotten that," alongside some "Is that really true?" thoughts. The author of this book doesn't shy away from controversy. In fact, each of the facts and fallacies is accompanied by a discussion of whatever controversy envelops it. You may find yourself agreeing with a lot of the facts and fallacies, yet emotionally disturbed by a few of them! Whether you agree or disagree, you will learn why the author has been called "the premier curmudgeon of software practice." These facts and fallacies are fundamental to the software building field–forget or neglect them at your peril!

Introduction to Software Design with Java Martin P. Robillard 2019-07-12 This textbook

provides an in-depth introduction to software design, with a focus on object-oriented design, and using the Java programming language. Its goal is to help readers learn software design by discovering the experience of the design process. To this end, a narrative is used that introduces each element of design know-how in context, and explores alternative solutions in that context. The narrative is supported by hundreds of code fragments and design diagrams. The first chapter is a general introduction to software design. The subsequent chapters cover design concepts and techniques, which are presented as a continuous narrative anchored in specific design problems. The design concepts and techniques covered include effective use of types and interfaces, encapsulation, composition, inheritance, design patterns, unit testing, and many more. A major emphasis is placed on coding and experimentation as a necessary complement to reading the text. To support this aspect of the learning process, a companion website with practice problems is provided, and three sample applications that capture numerous design decisions are included. Guidance on these sample applications is provided in a section called "Code Exploration" at the end of each chapter. Although the Java language is used as a means of conveying design-related ideas, the book's main goal is to address concepts and techniques that are applicable in a host of technologies. This book is intended for readers who have a minimum of programming experience and want to move from writing small programs and scripts to tackling the development of larger systems. This audience naturally includes students in university-level computer science and software engineering programs. As the prerequisites to specific computing concepts are kept to a minimum, the content is also accessible to programmers without a primary training in computing. In a similar vein, understanding the code fragments requires only a minimal grasp of the language, such as would be taught in an introductory programming course.

AUUG Conference Proceedings
Java Concepts with Blue J Companion Manual Set Cay Horstmann 2005-07 Think like a programmer Now updated to integrate Java 5.0, Cay Horstmann's Java Concepts, Fourth Edition provides an up-to-date, highly effective, and accessible introduction to the Java language and a solid grounding in fundamental computer science concepts. Drawing on his many years of experience as a career programmer and teacher, Horstmann will inspire you to think like a programmer and develop the problem-solving skills you need to succeed in your course and future career. Features Updated coverage to integrate Java 5.0. The text can still be used with older versions of Java. An approach that goes beyond language syntax to focus on computer science concepts and problem solving. The text encourages you to think as a problem solver and equips you with the tools you need to design efficient and successful programs. Review of Chapters 2 and 3 shows a gradual and student-friendly approach that is a Horstmann trademark. Horstmann provides extras like Quality Tips and Productivity Hints that give the user an inside track on the material. As always, there is a strong emphasis on the pragmatic and practical aspects of programming. is loaded with exercises and examples, and you can find the code for examples online. The Programming Style Guide. Available online, the Programming Style Guide helps you develop a consistent style for all of your programming projects. New to this edition is an accessible and colorful text layout that helps you find the information that you need when you need it. Other books by Cay Horstmann Big Java, Second Edition, 0-471-70615-9 Object-Oriented Design and Patterns, 0-471-31966-X Big C++ (with Timothy Budd), 0-471-47063-5 Computing Concepts with C++ Essentials, Third Edition, 0-471-16437-2 **Python For Everyone** Cay S. Horstmann 2019-02-21 Python for Everyone, 3rd Edition is an introduction to programming designed to serve a wide range of student interests and abilities, focused on the essentials, and on effective learning. It is suitable for a first course in programming for computer scientists, engineers, and students in other disciplines. This text requires no prior programming experience and only a modest amount of high school algebra. Objects are used where appropriate in early chapters and students start designing and implementing their own classes in Chapter 9. New to this edition are examples and exercises

that focus on various aspects of data science. Big C++ Cay S. Horstmann 2004-02-16 This proven author team combines their professional and academic experience to offer the most relevant and comprehensive introduction to programming and C++. * Authors combine professional and academic experience to offer the most relevant introduction to programming and C++ * Offers comprehensive examination of computer science, programming principles, and the C++ language * Covers advanced C++ topics, such as operator overloading, memory management, polymorphism, and more * Thorough coverage of STL * Integration of current technologies, such as UML and patterns **Scala Cookbook** Alvin Alexander 2021-08-10 Save time and trouble building object-oriented, functional, and concurrent applications with Scala. The latest edition of this comprehensive cookbook is packed with more than 250 ready-to-use recipes and 1,000 code examples to help you solve the most common problems when working with Scala 3 and its popular libraries. Scala changes the way you think about programming--and that's a good thing. Whether you're working on web, big data, or distributed applications, this cookbook provides recipes based on real-world scenarios for both experienced Scala developers and programmers just learning to use this JVM language. Author Alvin Alexander includes practical solutions from his experience using Scala for component-based, highly scalable applications that support concurrency and distribution. Recipes cover: Strings, numbers, and control structures Classes, methods, objects, traits, packaging, and imports Functional programming techniques Scala's wealth of collections classes and methods Building and publishing Scala applications with sbt Actors and concurrency with Scala Future and Akka Typed Popular libraries, including Spark, Scala.js, Play Framework, and GraalVM Types, such as variance, givens, intersections, and unions Best practices, including pattern matching, modules, and functional error handling **Core Java SE 9 for the Impatient** Cay S. Horstmann 2017-09-15 An Accessible Guide to the Java Language and Libraries Modern Java introduces major enhancements that impact the core Java technologies and APIs at the heart of

the Java platform. Many old Java idioms are no longer needed and new features such as modularization make you far more effective. However, navigating these changes can be challenging. Core Java® SE 9 for the Impatient, Second Edition, is a complete yet concise guide that includes all the latest changes up to Java SE 9. Written by Cay S. Horstmann–author of the classic two-volume Core Java–this indispensable tutorial offers a faster, easier pathway for learning modern Java. Given Java SE 9's size and the scope of its enhancements, there's plenty to cover, but it's presented in small chunks organized for quick access and easy understanding. Horstmann's practical insights and sample code help you quickly take advantage of all that's new, from Java SE 9's long-awaited "Project Jigsaw" module system to the improvements first introduced in Java SE 8, including lambda expressions and streams. Use modules to simplify the development of well-performing complex systems Migrate applications to work with the modularized Java API and third-party modules Test code as you create it with the new JShell Read-Eval-Print Loop (REPL) Use lambda expressions to express actions more concisely Streamline and optimize data management with today's Streams API Leverage modern concurrent programming based on cooperating tasks Take advantage of a multitude of API improvements for working with collections, input/output, regular expressions, and processes Whether you're just getting started with modern Java or you're an experienced developer, this guide will help you write tomorrow's most robust, efficient, and secure Java code. Register your product at informit.com/register for convenient access to downloads, updates, and/or corrections as they become available. *Big C++* Cay S. Horstmann 2020-08-25 Big C++: Late Objects, 3rd Edition focuses on the essentials of effective learning and is suitable for a two-semester introduction to programming sequence. This text requires no prior programming experience and only a modest amount of high school algebra. It provides an approachable introduction to fundamental programming techniques and design skills, helping students master basic concepts and become competent coders. The second half

covers algorithms and data structures at a level suitable for beginning students. Horstmann and Budd combine their professional and academic experience to guide the student from the basics to more advanced topics and contemporary applications such as GUIs and XML programming. More than a reference, Big C++ provides well-developed exercises, examples, and case studies that engage students in the details of useful C++ applications. Choosing the enhanced eText format allows students to develop their coding skills using targeted, progressive interactivities designed to integrate with the eText. All sections include built-in activities, open-ended review exercises, programming exercises, and projects to help students practice programming and build confidence. These activities go far beyond simplistic multiple-choice questions and animations. They have been designed to guide students along a learning path for mastering the complexities of programming. Students demonstrate comprehension of programming structures, then practice programming with simple steps in scaffolded settings, and finally write complete, automatically graded programs. The perpetual access VitalSource Enhanced eText, when integrated with your school's learning management system, provides the capability to monitor student progress in VitalSource SCORECenter and track grades for homework or participation. *Enhanced eText and interactive functionality available through select vendors and may require LMS integration approval for SCORECenter.
Object-Oriented Design and Patterns Cay S. Horstmann 2006 Drawing from his extensive experience as a programmer and teacher, author Cay Horstmann helps readers gain an appreciation for the value of object-oriented design principles. He provides the context so that readers can apply these principles and techniques in their own designs.
Learning Scala Jason Swartz 2014-12-11 Why learn Scala? You don't need to be a data scientist or distributed computing expert to appreciate this object-oriented functional programming language. This practical book provides a comprehensive yet approachable introduction to the language, complete with syntax diagrams, examples, and exercises. You'll

start with Scala's core types and syntax before diving into higher-order functions and immutable data structures. Author Jason Swartz demonstrates why Scala's concise and expressive syntax make it an ideal language for Ruby or Python developers who want to improve their craft, while its type safety and performance ensures that it's stable and fast enough for any application. Learn about the core data types, literals, values, and variables Discover how to think and write in expressions, the foundation for Scala's syntax Write higher-order functions that accept or return other functions Become familiar with immutable data structures and easily transform them with type-safe and declarative operations Create custom infix operators to simplify existing operations or even to start your own domain-specific language Build classes that compose one or more traits for full reusability, or create new functionality by mixing them in at instantiation
Big Java Cay S. Horstmann 2013-04-02 Cay Horstmann's fifth edition of Big Java, Early Objects provides a comprehensive and approachable introduction to fundamental programming techniques and design skills, helping students master basic concepts. The inclusion of advanced chapters makes the text suitable for a 2-semester course sequence, or as a comprehensive reference to programming in Java. The fifth edition includes new exercises from science and business which engages students with real world applications of Java in different industries -- BACK COVER.
Data Structures and Algorithms in Java Michael T. Goodrich 2014-01-28 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.

Big Java Cay S. Horstmann 2005-03-08 Completely updated to incorporate JAVA Version 5.0, this bestselling text and reference continues to provide a thorough understanding of Java. Combining a a proper foundation in the principles of programming and problem solving, and the expert guidance of Cay Horstmann, this book enables readers to take advantage of many of the exciting features of the Java language. In BIG JAVA, Cay Horstmann offers a text comprehensive enough to cover both introductory programming concpets and the elements of Java that are needed to write real-life programs, while reinforcing problem-solving skills.

C++ for Everyone Cay S. Horstmann 2011-06-14 "Thorough and updated coverage on all the essential C++ concepts Aimed at providing you with a solid foundation in programming with C++, this new edition incorporates programming exercises with helpful self-check questions that reinforce the concepts discussed throughout the book. You'll benefit from the how-to sections that show you how concepts are applied and advanced materials are featured on the accompanying Web site when you're ready to take your programming skills to the next level. Shows you how to use C++ to your benefit Includes advice for avoiding pitfalls Incorporates self-check questions and programming exercises to reinforce what you learn Encourages you to take your C++ programming skills to the next level with the advanced material featured on the accompanying Web site C++ for Everyone, Second Edition, is the go-to guide for getting started with C++!"--

Get Programming with Scala Daniela Sfregola 2021-09-07 Packed with examples and exercises, Get Programming with Scala is perfect starting point for developers with some OO knowledge who want to learn this multi-style programming language for the JVM, and pick up a few FP skills along the way. Master Scala, and you'll be well-equipped to match your programming approach to the type of problem you're dealing with. Packed with examples and exercises, Get Programming with Scala is perfect starting point for developers with some OO knowledge who want to learn this multi-style programming language for the JVM, and pick up a few FP skills along the way. Master Scala, and you'll be well-equipped to match your programming approach to the type of problem you're dealing with. Get Programming with Scala teaches you the core skills you'll need to code with Scala. You'll start by reviewing OOP concepts in the Scala language. Then, you'll gradually open up the world of functional programming. You'll explore functions and types and learn how to combine them to create powerful, flexible abstractions. Scala can be daunting at first, especially if you're seeing FP ideas for the first time. Fortunately, with the examples and exercises in this book, you'll get over the initial learning hump quickly and start doing interesting projects before you know it! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Javascript: Object Oriented Programming Ved Antani 2016-08-31 Build sophisticated web applications by mastering the art of Object-Oriented Javascript About This Book Learn popular Object-Oriented programming (OOP) principles and design patterns to build robust apps Implement Object-Oriented concepts in a wide range of frontend architectures Capture objects from real-world elements and create object-oriented code that represents them Learn the latest ES6 features and how to test and debug issues with JavaScript code using various modern mechanisms Who This Book Is For JavaScript developers looking to enhance their web developments skills by learning object-oriented programming. What You Will Learn Get acquainted with the basics of JavaScript language constructs along with object-oriented programming and its application. Learn to build scalable server application in JavaScript using Node.js Generate instances in three programming languages: Python, JavaScript, and C# Work with a combination of access modifiers, prefixes, properties, fields, attributes, and local variables to encapsulate and hide data Master DOM manipulation, cross-browser strategies, and ES6 Identify and apply the most common design patterns such as Singleton, Factory, Observer, Model-View-Controller, and Mediator

Patterns Design applications using a modular architecture based on SOLID principles In Detail JavaScript is the behavior, the third pillar in today's paradigm that looks at web pages as something that consists of : content (HTML), presentation (CSS), and behavior (JavaScript). Using JavaScript, you can create interactive web pages along with desktop widgets, browser, and application extensions, and other pieces of software. Object-oriented programming, which is popularly known as OOP, is basically based on the concept of objects rather than actions. The first module will help you master JavaScript and build futuristic web applications. You will start by getting acquainted with the language constructs and how to organize code easily. You develop concrete understanding of variable scoping, loops, and best practices on using types and data structures, as well as the coding style and recommended code organization patterns in JavaScript. The book will also teach you how to use arrays and objects as data structures. By the end of the book, you will understand how reactive JavaScript is going to be the new paradigm. The second module is an easy-to-follow course, which includes hands-on examples of solutions to common problems with object-oriented code. It will help to identify objects from real-life scenarios, to protect and hide data with the data encapsulation features of Python, JavaScript, and C#. You will discover the advantage of duck typing in both Python and JavaScript, while you work with interfaces and generics in C#. With a fair understanding of interfaces, multiple inheritance, and composition, you will move on to refactor existing code and to organize your source for easy maintenance and extension. The third module takes you through all the in-depth and exciting futures hidden behind the facade. You should read through this course if you want to be able to take your JavaScript skills to a new level of sophistication. Style and approach This course is a comprehensive guide where each chapter consists of best practices, constructive advice, and few easy-to-follow examples that will build up your skills as you advance through the book. Get object oriented with this course, which takes you on a journey to get acquainted with few useful hands-on tools, features, and ways to enhance your productivity using OOP techniques. It will also act as a reference guide with useful examples on resolving problems with object-oriented code in Python, JavaScript, and C#.

Java SE 8 for the Really Impatient Cay S. Horstmann 2014 This book concisely introduces Java 8's most valuable new features, including lambda expressions (closures) and streams. If you're an experienced Java programmer, the author's practical insights and sample code will help you quickly take advantage of these and other Java language and platform improvements. **Big Java** Cay S. Horstmann 2019-02-21 Big Java: Early Objects, 7th Edition focuses on the essentials of effective learning and is suitable for a two-semester introduction to programming sequence. This text requires no prior programming experience and only a modest amount of high school algebra. Objects and classes from the standard library are used where appropriate in early sections with coverage on object-oriented design starting in Chapter 8. This gradual approach allows students to use objects throughout their study of the core algorithmic topics, without teaching bad habits that must be un-learned later. The second half covers algorithms and data structures at a level suitable for beginning students. Choosing the enhanced eText format allows students to develop their coding skills using targeted, progressive interactivities designed to integrate with the eText. All sections include built-in activities, open-ended review exercises, programming exercises, and projects to help students practice programming and build confidence. These activities go far beyond simplistic multiple-choice questions and animations. They have been designed to guide students along a learning path for mastering the complexities of programming. Students demonstrate comprehension of programming structures, then practice programming with simple steps in scaffolded settings, and finally write complete, automatically graded programs. The perpetual access VitalSource Enhanced eText, when integrated with your school's learning management system, provides the capability to monitor student progress in VitalSource SCORECenter and track grades for homework or participation. *Enhanced eText and interactive functionality available through

select vendors and may require LMS integration   approval for SCORECenter.