

Java Methods Chapter 7 Solutions

Complete, trusted preparation for the Java Programmer II exam OCP: Oracle Certified Professional Java SE 8 Programmer II Study Guide is your comprehensive companion for preparing for Exam 1Z0-809 as well as upgrade Exam 1Z0-810 and Exam 1Z0-813. With full coverage of 100% of exam objectives, this invaluable guide reinforces what you know, teaches you what you don't know, and gives you the hands-on practice you need to boost your skills. Written by expert Java developers, this book goes beyond mere exam prep with the insight, explanations and perspectives that come from years of experience. You'll review the basics of object-oriented programming, understand functional programming, apply your knowledge to database work, and much more. From the basic to the advanced, this guide walks you through everything you need to know to confidently take the OCP 1Z0-809 Exam and upgrade exams 1Z0-810 and 1Z0-813. Java 8 represents the biggest changes to the language to date, and the latest exam now requires that you demonstrate functional programming competence in order to pass. This guide has you covered, with clear explanations and expert advice. Understand abstract classes, interfaces, and class design Learn object-oriented design principles and patterns Delve into functional programming, advanced strings, and localization Master IO, NIO, and JDBC with expert-led database practice If you're ready to take the next step in your IT career, OCP: Oracle Certified Professional Java SE 8 Programmer II Study Guide is your ideal companion on the road to certification.

Explains what Web services technologies are and how they work, discussing how to use them and what they do and covering topics including SOAP, WSDL, UDDI, security, interoperability, and integration.

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: Blade, Laravel's powerful custom templating tool 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 Quickly find solutions to dozens of common programming problems encountered while building Java applications. Content is presented in the popular problem-solution format. Look up the programming problem that you want to resolve. Read the solution. Apply the solution directly in your own code. Problem solved! This revised edition covers important new features such as Java 9's JShell and the new modularity features enabling you to separate code into independent modules that perform discrete tasks. Also covered are the new garbage collection algorithm and completely revamped process API. Enhanced JSON coverage is provided as well as a new chapter on JavaServer Faces development for web applications. What You'll Learn Develop Java SE applications using the latest in Java SE technology Exploit advanced features like modularity and lambdas Use JShell to quickly develop solutions Build dynamic web applications with JavaScript and Project Nashorn Create great-looking web interfaces with JavaServer Faces Generate graphics and work with media such as sound and video Add

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

Learn how to design and develop distributed web services in Java, using RESTful architectural principles and the JAX-RS 2.0 specification in Java EE 7. By focusing on implementation rather than theory, this hands-on reference demonstrates how easy it is to get started with services based on the REST architecture. With the book's technical guide, you'll learn how REST and JAX-RS work and when to use them. The RESTEasy workbook that follows provides step-by-step instructions for installing, configuring, and running several working JAX-RS examples, using the JBoss RESTEasy implementation of JAX-RS 2.0. Learn JAX-RS 2.0 features, including a client API, server-side asynchronous HTTP, and filters and interceptors Examine the design of a distributed RESTful interface for an e-commerce order entry system Use the JAX-RS Response object to return complex responses to your client (ResponseBuilder) Increase the performance of your services by leveraging HTTP caching protocols Deploy and integrate web services within Java EE7, servlet containers, EJB, Spring, and JPA Learn popular mechanisms to perform authentication on the Web, including client-side SSL and OAuth 2.0

This book offers a new approach to introductory scientific computing. It aims to make students comfortable using computers to do science, to provide them with the computational tools and

knowledge they need throughout their college careers and into their professional careers, and to show how all the pieces can work together. Rubín Landau introduces the requisite mathematics and computer science in the course of realistic problems, from energy use to the building of skyscrapers to projectile motion with drag. He is attentive to how each discipline uses its own language to describe the same concepts and how computations are concrete instances of the abstract. Landau covers the basics of computation, numerical analysis, and programming from a computational science perspective. The first part of the printed book uses the problem-solving environment Maple as its context, with the same material covered on the accompanying CD as both Maple and Mathematica programs; the second part uses the compiled language Java, with equivalent materials in Fortran90 on the CD; and the final part presents an introduction to LaTeX replete with sample files. Providing the essentials of computing, with practical examples, *A First Course in Scientific Computing* adheres to the principle that science and engineering students learn computation best while sitting in front of a computer, book in hand, in trial-and-error mode. Not only is it an invaluable learning text and an essential reference for students of mathematics, engineering, physics, and other sciences, but it is also a consummate model for future textbooks in computational science and engineering courses. A broad spectrum of computing tools and examples that can be used throughout an academic career Practical computing aimed at solving realistic problems Both symbolic and numerical computations A multidisciplinary approach: science + math + computer science Maple and Java in the book itself; Mathematica, Fortran90, Maple and Java on the accompanying CD in an interactive workbook format

Get started with Spring Framework 5 and its ecosystem, with a guide to the working practices in modern development. This book will teach you how to use the Spring Framework to build Java-based applications, web applications, and microservices. You'll see how Spring has drastically and positively affected the way we program and design applications in Java. *Beginning Spring 5* discusses how you can build apps with the Spring mindset and what the benefits of that mindset are. Along the way you will learn many aspects of the Spring ecosystem with easy-to-understand applications designed to teach you not only the technology, but also the practices that benefit the most from Spring. *What You Will Learn* Discover the most common use cases encountered in the real world Create reliable, tested, modular software, building skills that will translate well across all languages and environments. Integrate and use data access and persistence frameworks such as Hibernate, JPA, and MongoDB Program functional or reactive Java with the latest Spring 5 features including WebFlux *Who This Book Is For* Those who are new to Spring or for those who have experience with Spring but want to learn what's new in Spring 5. This book assumes you have some prior coding experience in Java at least.

If you're interested in JRuby, you probably don't need a tutorial on Ruby, Rails, or Java -- you just need to know how to get things done. This Cookbook offers practical solutions for using the Java implementation of the Ruby language, with targeted recipes for deploying Rails web applications on Java servers, integrating JRuby code with Java technologies, developing JRuby desktop applications with Java toolkits, and more. Using numerous reusable code samples, *JRuby Cookbook* shows you how to: Install and update JRuby on Windows, Mac OS X, and Linux, and IDEs such as NetBeans and Eclipse Package and deploy Rails apps on Java Servlet containers and Java EE application servers, including JBoss, Tomcat, and GlassFish Integrate Ruby and Rails applications with popular Java EE technologies such as JMS, JMX, JPA, Spring, and Hibernate Develop desktop and client applications with cross-platform Java UI technologies and toolkits such as Swing, SWT, and Java 2D Maximize the flexibility of your testing and build environment, using both existing Java-based tools such as Ant and Maven and newer Ruby-based tools such as Rake, Raven, and Buildr The JRuby interpreter combines Ruby's simplicity and ease of use with Java's extensive libraries and

technologies, a potent blend that opens new possibilities for Ruby, Rails, and Java. This Cookbook helps you take full advantage of JRuby's potential. "The JRuby Cookbook is an excellent book for any polyglot who is trying to bridge the gap between Java and Ruby. It provides solutions to specific problems developers face in both their development and testing environments, along with the applications they're building."-- Bob McWhirter, Research & Prototyping, Red Hat Middleware

Create robust and maintainable Java applications using the functional style of programming
About This Book Explore how you can blend object-oriented and functional programming styles in Java Use lambda expressions to write flexible and succinct code A tutorial that strengthens your fundamentals in functional programming techniques to enhance your applications Who This Book Is For If you are a Java developer with object-oriented experience and want to use a functional programming approach in your applications, then this book is for you. All you need to get started is familiarity with basic Java object-oriented programming concepts. What You Will Learn Use lambda expressions to simplify code Use function composition to achieve code fluency Apply streams to simplify implementations and achieve parallelism Incorporate recursion to support an application's functionality Provide more robust implementations using Optionals Implement design patterns with less code Refactor object-oriented code to create a functional solution Use debugging and testing techniques specific to functional programs In Detail Functional programming is an increasingly popular technology that allows you to simplify many tasks that are often cumbersome and awkward using an object-oriented approach. It is important to understand this approach and know how and when to apply it. Functional programming requires a different mindset, but once mastered it can be very rewarding. This book simplifies the learning process as a problem is described followed by its implementation using an object-oriented approach and then a solution is provided using appropriate functional programming techniques. Writing succinct and maintainable code is facilitated by many functional programming techniques including lambda expressions and streams. In this book, you will see numerous examples of how these techniques can be applied starting with an introduction to lambda expressions. Next, you will see how they can replace older approaches and be combined to achieve surprisingly elegant solutions to problems. This is followed by the investigation of related concepts such as the Optional class and monads, which offer an additional approach to handle problems. Design patterns have been instrumental in solving common problems. You will learn how these are enhanced with functional techniques. To transition from an object-oriented approach to a functional one, it is useful to have IDE support. IDE tools to refactor, debug, and test functional programs are demonstrated through the chapters. The end of the book brings together many of these functional programming techniques to create a more comprehensive application. You will find this book a very useful resource to learn and apply functional programming techniques in Java. Style and approach In this tutorial, each chapter starts with an introduction to the terms and concepts covered in that chapter. It quickly progresses to contrast an object-oriented approach with a functional approach using numerous code examples.

Annotation Sun's Java Network Launch Protocol (JNLP) and Web Start technologies have re-energized the desktop Java market creating a strong need for deployment information. Java Deployment: Deploying Java Applications with JNLP and Web Start is for anyone who needs to solve the deployment problem for professional Java software, in particular for developers of Java software and customer organizations that install and maintain Java software for their users. This book is a practical guide and a reference for the new JNLP technology and its implementations. Overviews of the current state-of-the-art in the deployment-related technologies for Java and their impact on the implementations of a new-generation of network-centric software. Java Deployment: Deploying Java Applications with JNLP and Web Start takes a very practical approach to the topic of deploying Java applications. First, the book

presents the major deployment concerns a Java developer faces and addresses the most common deployment scenarios. Next, the book addresses deployment issues the developer faces while coding a project. Finally, the book presents the JNLP technology and shows how to use JNLP in application deployment. Dr. Mauro Marinilli holds a degree in Computer Science Engineering from the University of Rome. His professional activity is divided between theoretical academic research and work as a Java development engineer. Dr. Marinilli has published several academic papers in Conference Proceedings and in specialized reviews, ranging from Information Filtering (IF), applications of Case-Based Reasoning (CBR) and Human-Computer Interaction (HCI) to Adaptive Hypermedia. Dr. Marinilli is the author of the first Information Filtering Applet, implementing an original algorithm and one of the first and pioneering works on Java3D editor tools cited on Sun Microsystem's site.

A thorough introduction for Java developers to the SOAP (Simple Object Access Protocol) for designing and implementing web services, covering both the Apache SOAP tools and IBM Web services toolkit, the use of Brazil as a small SOAP server, UDDI and WSDL, and other information exchange applications. Original. (Intermediate)

Java—from first steps to first apps Knowing Java is a must-have programming skill for any programmer. It's used in a wide array of programming projects—from enterprise apps and mobile apps to big data, scientific, and financial uses. The language regularly ranks #1 in surveys of the most popular language based on number of developers, lines of code written, and real-world usage. It's also the language of choice in AP Computer Science classes taught in the U.S. This guide provides an easy-to-follow path from understanding the basics of writing Java code to applying those skills to real projects. Split into eight minibooks covering core aspects of Java, the book introduces the basics of the Java language and object-oriented programming before setting you on the path to building web apps and databases. • Get up to speed on Java basics • Explore object-oriented programming • Learn about strings, arrays, and collections • Find out about files and databases Step-by-step instructions are provided to ensure that you don't get lost at any point along the way.

Essential Java serves as an introduction to the programming language, Java, for scientists and engineers, and can also be used by experienced programmers wishing to learn Java as an additional language. The book focuses on how Java, and object-oriented programming, can be used to solve science and engineering problems. Many examples are included from a number of different scientific and engineering areas, as well as from business and everyday life. Pre-written packages of code are provided to help in such areas as input/output, matrix manipulation and scientific graphing. Takes a 'dive-in' approach, getting the reader writing and running programs immediately Teaches object-oriented programming for problem-solving in engineering and science

Aimed for programmers, offers an accelerated introduction to the 1.4 release of Java 2 Standard edition covering topics such as syntax, object-oriented features, and Java development tools.

Java EE 7 Recipes takes an example-based approach in showing how to program Enterprise Java applications in many different scenarios. Be it a small-business web application, or an enterprise database application, Java EE 7 Recipes provides effective and proven solutions to accomplish just about any task that you may encounter. You can feel confident using the reliable solutions that are demonstrated in this book in your personal or corporate environment. The solutions in Java EE 7 Recipes are built using the most current Java Enterprise specifications, including EJB 3.2, JSF 2.2, Expression Language 3.0, Servlet 3.1, and JMS 2.0. While older technologies and frameworks exist, it is important to be forward-looking and take advantage of all that the latest technologies offer. Rejuvenate your Java expertise to use the freshest capabilities, or perhaps learn Java Enterprise development for the first time and discover one of the most widely used and most powerful platforms available for application

development today. Let Java EE 7 Recipes show you the way by showing how to build streamlined and reliable applications much faster and easier than ever before by making effective use of the latest frameworks and features on offer in the Java EE 7 release. Shows off the most current Java Enterprise Edition technologies. Provides solutions to creating sophisticated user interfaces. Demonstrates proven solutions for effective database access. Table of Contents Introduction to Servlets JavaServer Pages The Basics of JavaServer Faces Facelets JavaServer Faces Standard Components Advanced JavaServer Faces and Ajax JDBC Object-Relational Mapping Enterprise JavaBeans The Query API and JPQL Oracle's Glassfish Contexts and Dependency Injection Java Message Service Authentication and Security Java Web Services Enterprise Solutions Using Alternative Programming Languages WebSockets and JSON-P JavaFX in the Enterprise Concurrency and Batch Applications

The professional programmer's Deitel® guide to Java™ development and the powerful Java platform Written for programmers with a background in high-level language programming, this book applies the Deitel signature live-code approach to teaching programming and explores the Java language and Java APIs in depth. The book presents concepts in the context of fully tested programs, complete with syntax shading, code highlighting, line-by-line code walkthroughs and program outputs. The book features 200+ complete Java programs with 18,000+ lines of proven Java code, and hundreds of tips that will help you build robust applications. Start with an introduction to Java using an early classes and objects approach, then rapidly move on to more advanced topics, including GUI, graphics, exception handling, generics, collections, JDBC™, web-application development with JavaServer™ Faces, web services and more. You'll enjoy the Deitels' classic treatment of object-oriented programming and the OOD/UML® ATM case study, including a complete Java implementation. When you're finished, you'll have everything you need to build object-oriented Java applications.

Provides both a tutorial and a quick reference guide to the Java APIs for Web services development, with a study of the different types of Web services, an explanation of JWSDP, and other documentation and supplementary material. Focuses on service-oriented architecture: web services, orchestrations, policies, and more - for developers.

Java Enterprise Edition (Java EE) continues to be one of the leading Java technologies and platforms from Oracle (previously Sun). Beginning Java EE 6 Platform with GlassFish 3, Second Edition is this first tutorial book on the final (RTM) version of the Java EE 6 Platform. Step by step and easy to follow, this book describes many of the Java EE 6 specifications and reference implementations, and shows them in action using practical examples. This book uses the new version of GlassFish 3 to deploy and administer the code examples. Written by an expert member of the Java EE 6 specification request and review board in the Java Community Process (JCP), this book contains the best information possible, from an expert's perspective on enterprise Java technologies.

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

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. The only comprehensive set of guidelines for secure Java programming - from the field's leading organizations, CERT and Oracle

- Authoritative, end-to-end code-level requirements for building secure systems with any recent version of Java, including the new Java 7
- Presents techniques that also improve safety, reliability, dependability, robustness, availability, maintainability, and other attributes of quality.
- Includes extensive risk assessment guidance, plus references for further information.

This is the first authoritative, comprehensive compilation of code-level requirements for building secure systems in Java. Organized by CERT's pioneering software security experts, with support from Oracle's own Java platform developers, it covers every facet of secure software coding with Java 7 SE and Java 6 SE, and offers value even to developers working with other Java versions. The authors itemize the most common coding errors leading to vulnerabilities in Java programs, and provide specific guidelines for avoiding each of them. They show how to produce programs that are not only secure, but also safer, more reliable, more robust, and easier to maintain. After a high-level introduction to Java application security, eighteen consistently-organized chapters detail specific guidelines for each facet of Java development. Each set of guidelines defines conformance, presents both noncompliant examples and corresponding compliant solutions, shows how to assess risk, and

offers references for further information. To limit this book's size, the authors focus on 'normative requirements': strict rules for what programmers must do for their work to be secure, as defined by conformance to specific standards that can be tested through automated analysis software. (Note: A follow-up book will present 'non-normative requirements': recommendations for what Java developers typically 'should' do to further strengthen program security beyond testable 'requirements'.)

Java 8 Recipes offers solutions to common programming problems encountered while developing Java-based applications. Fully updated with the newest features and techniques available, Java 8 Recipes provides code examples involving Lambdas, embedded scripting with Nashorn, the new date-time API, stream support, functional interfaces, and much more. Especial emphasis is given to features such as lambdas that are newly introduced in Java 8. Content is presented in the popular problem-solution format: Look up the programming problem that you want to solve. Read the solution. Apply the solution directly in your own code. Problem solved! The problem-solution approach sets Java 8 Recipes apart. Java 8 Recipes is focused less on the language itself and more on what you can do with it that is useful. The book respects your time by always focusing on a task that you might want to perform using the language. Solutions come first. Explanations come later. You are free to crib from the book and apply the code examples directly to your own projects. Covers the newly-released Java 8, including a brand new chapter on lambdas Focuses especially on up-and-coming technologies such as Project Nashorn and Java FX 2.0 Respects your time by focusing on practical solutions you can implement in your own code The traditional division of labor between the database (which only stores and manages SQL and XML data for fast, easy data search and retrieval) and the application server (which runs application or business logic, and presentation logic) is obsolete. Although the books primary focus is on programming the Oracle Database, the concepts and techniques provided apply to most RDBMS that support Java including Oracle, DB2, Sybase, MySQL, and PostgreSQL. This is the first book to cover new Java, JDBC, SQLJ, JPublisher and Web Services features in Oracle Database 10g Release 2 (the coverage starts with Oracle 9i Release 2). This book is a must-read for database developers audience (DBAs, database applications developers, data architects), Java developers (JDBC, SQLJ, J2EE, and OR Mapping frameworks), and to the emerging Web Services assemblers. Describes pragmatic solutions, advanced database applications, as well as provision of a wealth of code samples. Addresses programming models which run within the database as well as programming models which run in middle-tier or client-tier against the database. Discusses languages for stored procedures: when to use proprietary languages such as PL/SQL and when to use standard languages such as Java; also running non-Java scripting languages in the database. Describes the Java runtime in the Oracle database 10g (i.e., OracleJVM), its architecture, memory management, security management,

threading, Java execution, the Native Compiler (i.e., NCOMP), how to make Java known to SQL and PL/SQL, data types mapping, how to call-out to external Web components, EJB components, ERP frameworks, and external databases. Describes JDBC programming and the new Oracle JDBC 10g features, its advanced connection services (pooling, failover, load-balancing, and the fast database event notification mechanism) for clustered databases (RAC) in Grid environments. Describes SQLJ programming and the latest Oracle SQLJ 10g features, contrasting it with JDBC. Describes the latest Database Web services features, Web services concepts and Services Oriented Architecture (SOA) for DBA, the database as Web services provider and the database as Web services consumer. Abridged coverage of JPublisher 10g, a versatile complement to JDBC, SQLJ and Database Web Services.

Programming Finite Elements in Java™ teaches the reader how to programme the algorithms of the finite element method (FEM) in Java™. The compact, simple code helps the student to read the algorithms, to understand them and thus to be able to refine them. All of the main aspects of finite element techniques are considered: finite element solution; generation of finite element meshes; and visualization of finite element models and results with Java 3DTM. The step-by-step presentation includes algorithm programming and code explanation at each point. Problems and exercises are provided for each chapter, with Java™ source code and problem data sets available from <http://extras.springer.com/2010/978-1-84882-971-8>.

Mobile Web services offer new possibilities and extraordinary rewards for the mobile telecommunications market. Service-oriented architectures (SOAs) implemented with Web services are fundamentally changing business processes supported by distributed computing. These technologies bring forward the promise of services available at any time, in any place, and on any platform. Through mobile Web services, operators can offer new value-added services for their users, explore new business opportunities and increase revenue and customer retention. This expands the commercial opportunities for developers to promote their applications and enables solutions that work seamlessly across computer and mobile environments. Mobile Web Services is a comprehensive, up-to-date and practical guide to adapting mobile Web services-based applications. The expert author team from Nokia explain in depth the software architecture and application development interfaces needed to develop solutions for these technologies. Mobile Web Services: Architecture and Implementation: Provides a complete and authoritative text on implementing mobile Web services. Describes the mobile Service-Oriented Architecture (SOA) concept. Covers the discovery, description and security of Web services. Explains how to use Simple Object Access Protocol (SOAP) in Web service messaging. Discusses the challenges and possibilities of mobile Web services, and gives case studies to illustrate the application of the technology. Presents the Nokia Mobile Web Services platform. Offers material on developing mobile Web service clients

using C++ and Java. This text is essential reading for wireless Web architects, mobile application developers and programmers, software developers, technical officers and consultants, as well as advanced students in Computer Science and Electrical Engineering.

If you're a distributed Java or Enterprise JavaBeans programmer, then you've undoubtedly heard of Java's Remote Method Invocation (RMI). Java programmers use RMI to write efficient, fault-tolerant distributed applications with very little time or effort. Whether you're networking across a LAN or across the Internet, RMI provides Java programmers with a lightweight solution to a heavyweight problem. Java RMI contains a wealth of experience in designing and implementing applications that use Remote Method Invocation. Novice readers will quickly be brought up to speed on why RMI is such a powerful yet easy-to-use tool for distributed programming, while experts can gain valuable experience for constructing their own enterprise and distributed systems. The book also provides strategies for working with: Serialization, Threading, The RMI registry, Sockets and socket factories, Activation, Dynamic class downloading, HTTP tunnelling, Distributed garbage collection, JNDI, CORBA. In short, a treasure trove of valuable RMI knowledge packed into one book!

Java 7 Recipes offers solutions to common programming problems encountered every day while developing Java-based applications. Fully updated with the newest features and techniques available, Java 7 Recipes provides code examples involving Servlets, Java FX 2.0, XML, Java Swing, and much more. Content is presented in the popular problem-solution format: Look up the programming problem that you want to solve. Read the solution. Apply the solution directly in your own code. Problem solved! The problem-solution approach sets Java 7 Recipes apart from other books on the topic. Java 7 Recipes is focused less on the language itself and more on what you can do with it that is useful. The book respects your time by always focusing on a task that you might want to perform using the language. Solutions come first. Explanations come later. You are free to crib from the book and apply the code examples directly to your own projects. Covers all-new release of Java: Java 7 Focuses especially on up-and-coming technologies such as Java FX 2.0 Respects your time by focusing on practical solutions you can implement in your own code Master core REST concepts and create RESTful web services in Java About This Book Build efficient and secure RESTful web APIs in Java.. Design solutions to produce, consume and visualize RESTful web services using WADL, RAML, and Swagger Familiarize the role of RESTful APIs usage in emerging technology trends like Cloud, IoT, Social Media. Who This Book Is For If you are a web developer with a basic understanding of the REST concepts and envisage to get acquainted with the idea of designing and developing RESTful web services, this is the book for you. As all the code samples for the book are written in Java, proficiency in Java is a must. What You Will Learn Introduce yourself to the RESTful software architectural style and the REST API design principles Make

use of the JSR 353 API, JSR 374 API, JSR 367 API and Jackson API for JSON processing Build portable RESTful web APIs, making use of the JAX-RS 2.1 API Simplify API development using the Jersey and RESTEasy extension APIs Secure your RESTful web services with various authentication and authorization mechanisms Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services Understand the design and coding guidelines to build well-performing RESTful APIs See how the role of RESTful web services changes with emerging technologies and trends In Detail Representational State Transfer (REST) is a simple yet powerful software architecture style to create lightweight and scalable web services. The RESTful web services use HTTP as the transport protocol and can use any message formats, including XML, JSON(widely used), CSV, and many more, which makes it easily inter-operable across different languages and platforms. This successful book is currently in its 3rd edition and has been used by thousands of developers. It serves as an excellent guide for developing RESTful web services in Java. This book attempts to familiarize the reader with the concepts of REST. It is a pragmatic guide for designing and developing web services using Java APIs for real-life use cases following best practices and for learning to secure REST APIs using OAuth and JWT. Finally, you will learn the role of RESTful web services for future technological advances, be it cloud, IoT or social media. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services using Java APIs. Style and approach Step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions.

This text provides Java developers with in-depth coverage of Web Services technology. It includes contributions from recognised Web Services experts and architects, including the Web Services team at IBM.

Java is now used with increasing frequency to develop mission-critical applications. Using Java Management Extensions (JMX) is the key to managing those applications. As JMX is increasingly accepted into the fields of embedded systems, enterprise systems, and telephony, it is clear that all Java developers will encounter JMX before long. Java(TM) and JMX: Building Manageable Systems is the definitive guide to JMX, combining an introduction to the technology with extensive coverage that will make this book a favorite reference. Much more than just an explanation of the JMX specifications, this book can drastically reduce a reader's JMX learning curve by explaining how to develop management requirements and apply JMX to them. The book's coverage includes: A management primer for Java programmers and architects A historical perspective on the evolution of JMX and its relation to other management standards, including SNMP, CIM/WBEM, TMN, and CMIP Development of JMX Manageable Resources with Standard and Dynamic MBeans Development with Model MBeans as customizable generic instrumentation using both the JMX APIs

and XML files MBeanServer, including the MBean registry and object naming scheme, the generic MBean interface, and the query mechanism JMX Monitors and Notifications MBeanServer Services including the timer, relationship, and dynamic loading, along with custom services for XML services, HTTP adapters, RMI connectors, and security exposures and permissions JMX best practices, including deployment patterns, instrumentation patterns, federation patterns, and best practices JMX integration into J2EE and the JSR077 management models in J2EE 1.4 Using JMX to manage Web services from the perspective of service providers, registry providers, and users Written with an unparalleled degree of in-the-trenches familiarity and full of practical examples and working sample code, Java(TM) and JMX is a must-have introduction, technological guide, and reference for Java architects and developers. 0672324083B12052002

Java 7 Recipes A Problem-Solution Approach Apress

Learn how to develop REST-style and SOAP-based web services and clients with this quick and thorough introduction. This hands-on book delivers a clear, pragmatic approach to web services by providing an architectural overview, complete working code examples, and short yet precise instructions for compiling, deploying, and executing them. You'll learn how to write services from scratch and integrate existing services into your Java applications. With greater emphasis on REST-style services, this second edition covers HttpServlet, Restlet, and JAX-RS APIs; jQuery clients against REST-style services; and JAX-WS for SOAP-based services. Code samples include an Apache Ant script that compiles, packages, and deploys web services. Learn differences and similarities between REST-style and SOAP-based services Program and deliver RESTful web services, using Java APIs and implementations Explore RESTful web service clients written in Java, JavaScript, and Perl Write SOAP-based web services with an emphasis on the application level Examine the handler and transport levels in SOAP-based messaging Learn wire-level security in HTTP(S), users/roles security, and WS-Security Use a Java Application Server (JAS) as an alternative to a standalone web server

Whether you're a Flex 3 beginner or intermediate user, this book provides the necessary information to help you develop into an expert. Using a practical hands-on approach, it illustrates exactly how to create robust and scalable enterprise-grade rich Internet applications (RIAs). The book is divided into three parts. The first part discusses the architectural and design aspects of Flex 3 application development. It explains the internals of a Flex 3 application and advocates a few best practices to fine-tune your application to ensure maximum performance. It includes tutorials on creating custom components, data binding, and creating AIR-powered desktop applications. The second part concentrates on effectively integrating Flex 3 with server- and client-side technologies. Techniques for integration with Java and PHP are covered in detail, and content covering interaction with client-side technologies is also included. After reading the chapter on JavaScript integration, you will be ready to create applications that can use

Ajax and Flex 3 together. The third and final part of the book is a unique and eclectic mix of some advanced topics like mash-ups, collaborative applications, 3D rendering, highly interactive visualization, and audio and video streaming. In summary, through reading this book, you will benefit from the wealth of information and years of experience the authors hold, and will then be ready to cruise with comfort in the world of Flex 3 application development on your own. Programming with Java, 4e, gives an excellent account of the fundamentals of Java Programming. The language concepts are aptly explained in simple and easy-to-understand style, supported with examples, illustrations and programming and debugging exercises.

Sometimes the simplest answer is the best. Many Enterprise Java developers, accustomed to dealing with Java's spiraling complexity, have fallen into the habit of choosing overly complicated solutions to problems when simpler options are available. Building server applications with "heavyweight" Java-based architectures, such as WebLogic, JBoss, and WebSphere, can be costly and cumbersome. When you've reached the point where you spend more time writing code to support your chosen framework than to solve your actual problems, it's time to think in terms of simplicity. In *Better, Faster, Lighter Java*, authors Bruce Tate and Justin Gehtland argue that the old heavyweight architectures are unwieldy, complicated, and contribute to slow and buggy application code. As an alternative means for building better applications, the authors present two "lightweight" open source architectures: Hibernate--a persistence framework that does its job with a minimal API and gets out of the way, and Spring--a container that's not invasive, heavy or complicated. Hibernate and Spring are designed to be fairly simple to learn and use, and place reasonable demands on system resources. *Better, Faster, Lighter Java* shows you how they can help you create enterprise applications that are easier to maintain, write, and debug, and are ultimately much faster. Written for intermediate to advanced Java developers, *Better, Faster, Lighter Java*, offers fresh ideas--often unorthodox--to help you rethink the way you work, and techniques and principles you'll use to build simpler applications. You'll learn to spend more time on what's important. When you're finished with this book, you'll find that your Java is better, faster, and lighter than ever before.

Java Enterprise Edition (Java EE) continues to be one of the leading Java technologies and platforms from Oracle (previously Sun). *Beginning Java EE 6 Platform with GlassFish 3, Second Edition* is this first tutorial book on the final version of the Java EE 6 Platform. Step by step and easy to follow, this book describes many of the Java EE 6 specifications and reference implementations, and shows them in action using practical examples. This book uses the new version of GlassFish 3 to deploy and administer the code examples. Written by an expert member of the Java EE 6 specification request and review board in the Java Community Process (JCP), this book contains the best information possible, from an expert's perspective on enterprise Java technologies.

This is an introductory course book that teaches Java programming. The book has many completed programs, screen shots of output and explanations about the programs. There is also a good collection of exercises to try out. It is intended for students who possibly have not programmed before and wish to go to university and study Computer Science or a related course.

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