

Spring Batch In Action

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Spring Boot in Action - Craig Walls 2015-12-16

Summary A developer-focused guide to writing applications using Spring Boot. You'll learn how to bypass the tedious configuration steps so that you can concentrate on your application's behavior. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology The Spring Framework simplifies enterprise Java development, but it does require lots of tedious configuration work. Spring Boot radically streamlines spinning up a Spring application. You get automatic configuration and a model with established conventions for build-time and runtime dependencies. You also get a handy command-line interface you can use to write scripts in Groovy. Developers who use Spring Boot often say that they can't imagine going back to hand configuring their applications. About the Book Spring Boot in Action is a developer-focused guide to writing applications using Spring Boot. In it, you'll learn how to bypass configuration steps so you can focus on your application's behavior. Spring expert Craig Walls uses interesting and practical examples to teach you both how to use the default settings effectively and how to override and customize Spring Boot for your unique environment. Along the way, you'll pick up insights from Craig's years of Spring development experience. What's Inside Develop Spring apps more efficiently Minimal to no configuration Runtime metrics with the Actuator Covers Spring Boot 1.3 About the Reader Written for readers familiar with the Spring Framework. About the Author Craig Walls is a software developer, author of the popular book Spring in Action, Fourth Edition, and a frequent speaker at conferences. Table of Contents Bootstarting Spring Developing your first Spring Boot application Customizing configuration Testing with Spring Boot Getting Groovy with the Spring Boot CLI Applying Grails in Spring Boot Taking a peek inside with the Actuator Deploying Spring Boot applications APPENDIXES Spring Boot developer tools Spring Boot starters Configuration properties Spring Boot dependencies

Hands-On High Performance with Spring 5 - Chintan Mehta 2018-06-12

A hands-on guide to creating, monitoring, and tuning a high performance Spring web application Key Features Understand common performance pitfalls and improve your application's performance Build and deploy strategies for complex applications using the microservice architecture Understand internals of JVM - the core of all Java Runtime Environments Book Description While writing an application, performance is paramount. Performance tuning for real-world applications often involves activities geared toward detecting bottlenecks. The recent release of Spring 5.0 brings major advancements in the rich API provided by the Spring framework, which means developers need to master its tools and techniques to achieve high performance applications. Hands-On High Performance with Spring 5 begins with the Spring framework's core features, exploring the integration of different Spring projects. It proceeds to evaluate various Spring specifications to identify those adversely affecting performance. You will learn about bean wiring configurations, aspect-oriented programming, database interaction, and Hibernate to focus on the metrics that help identify performance bottlenecks. You will also look at application monitoring, performance optimization, JVM internals, and garbage collection optimization. Lastly, the book will show you how to leverage the microservice architecture to build a high performance and resilient application. By the end of the book, you will have gained an insight into various techniques and solutions to build and troubleshoot high performance Spring-based applications. What you will learn Master programming best practices and performance improvement with bean wiring Analyze the performance of various AOP implementations

Explore database interactions with Spring to optimize design and configuration Solve Hibernate performance issues and traps Leverage multithreading and concurrent programming to improve application performance Gain a solid foundation in JVM performance tuning using various tools Learn the key concepts of the microservice architecture and how to monitor them Perform Spring Boot performance tuning, monitoring, and health checks Who this book is for If you're a Spring developer who'd like to build high performance applications and have more control over your application's performance in production and development, this book is for you. Some familiarity with Java, Maven, and Eclipse is necessary.

Mastering Spring 5.0 - Ranga Rao Karanam 2017-06-28

Develop cloud native applications with microservices using Spring Boot, Spring Cloud, and Spring Cloud Data Flow About This Book Explore the new features and components in Spring Evolve towards micro services and cloud native applications Gain powerful insights into advanced concepts of Spring and Spring Boot to develop applications more effectively Understand the basics of Kotlin and use it to develop a quick service with Spring Boot Who This Book Is For This book is for an experienced Java developer who knows the basics of Spring, and wants to learn how to use Spring Boot to build applications and deploy them to the cloud. What You Will Learn Explore the new features in Spring Framework 5.0 Build microservices with Spring Boot Get to know the advanced features of Spring Boot in order to effectively develop and monitor applications Use Spring Cloud to deploy and manage applications on the Cloud Understand Spring Data and Spring Cloud Data Flow Understand the basics of reactive programming Get to know the best practices when developing applications with the Spring Framework Create a new project using Kotlin and implement a couple of basic services with unit and integration testing In Detail Spring 5.0 is due to arrive with a myriad of new and exciting features that will change the way we've used the framework so far. This book will show you this evolution—from solving the problems of testable applications to building distributed applications on the cloud. The book begins with an insight into the new features in Spring 5.0 and shows you how to build an application using Spring MVC. You will realize how application architectures have evolved from monoliths to those built around microservices. You will then get a thorough understanding of how to build and extend microservices using Spring Boot. You will also understand how to build and deploy Cloud-Native microservices with Spring Cloud. The advanced features of Spring Boot will be illustrated through powerful examples. We will be introduced to a JVM language that's quickly gaining popularity - Kotlin. Also, we will discuss how to set up a Kotlin project in Eclipse. By the end of the book, you will be equipped with the knowledge and best practices required to develop microservices with the Spring Framework. Style and approach This book follows an end-to-end tutorial approach with lots of examples and sample applications, covering the major building blocks of the Spring framework.

Spring In Action - Craig Walls And Ryan Breidenbach 2005-04-19

Spring in Action introduces you to the ideas behind Spring and then quickly launches into a hands-on exploration of the framework. Combining short code snippets and an ongoing example developed throughout the book, it shows you how to build simple and efficient J2EE applications. You will see how to solve persistence problems using the leading open-source tools, and also how to integrate your application with the most popular web frameworks. You will learn how to use Spring to manage the bulk of your infrastructure code so you can focus on what really matters your critical business needs. Spring in Action has been completely updated to cover the exciting new features of Spring 2.0. The book begins by

introducing you to the core concepts of Spring and then quickly launches into a hands-on exploration of the framework. Part 1 - Spring Essentials Part 2 - Spring in the Business Layer Part 3 - Spring in the Web Layer

Spring in Action, Sixth Edition - Craig Walls 2022-04-05

If you need to learn Spring, look no further than this widely beloved and comprehensive guide! Fully revised for Spring 5.3, and packed with interesting real-world examples to get your hands dirty with Spring. In Spring in Action, 6th Edition you will learn: Building reactive applications Relational and NoSQL databases Integrating via HTTP and REST-based services, and sand reactive RSocket services Reactive programming techniques Deploying applications to traditional servers and containers Securing applications with Spring Security Over the years, Spring in Action has helped tens of thousands of developers get a major productivity boost from Spring. This new edition of the classic bestseller covers all of the new features of Spring 5.3 and Spring Boot 2.4 along with examples of reactive programming, Spring Security for REST Services, and bringing reactivity to your databases. You'll also find the latest Spring best practices, including Spring Boot for application setup and configuration. About the technology Spring is required knowledge for Java developers! Why? Th is powerful framework eliminates a lot of the tedious configuration and repetitive coding tasks, making it easy to build enterprise-ready, production-quality software. The latest updates bring huge productivity boosts to microservices, reactive development, and other modern application designs. It's no wonder over half of all Java developers use Spring. About the book Spring in Action, Sixth Edition is a comprehensive guide to Spring's core features, all explained in Craig Walls' famously clear style. You'll put Spring into action as you build a complete database-backed web app step-by-step. This new edition covers both Spring fundamentals and new features such as reactive flows, Kubernetes integration, and RSocket. Whether you're new to Spring or leveling up to Spring 5.3, make this classic bestseller your bible! What's inside Relational and NoSQL databases Integrating via RSocket and REST-based services Reactive programming techniques Deploying applications to traditional servers and containers About the reader For beginning to intermediate Java developers. About the author Craig Walls is an engineer at VMware, a member of the Spring engineering team, a popular author, and a frequent conference speaker. Table of Contents PART 1 FOUNDATIONAL SPRING 1 Getting started with Spring 2 Developing web applications 3 Working with data 4 Working with nonrelational data 5 Securing Spring 6 Working with configuration properties PART 2 INTEGRATED SPRING 7 Creating REST services 8 Securing REST 9 Sending messages asynchronously 10 Integrating Spring PART 3 REACTIVE SPRING 11 Introducing Reactor 12 Developing reactive APIs 13 Persisting data reactively 14 Working with RSocket PART 4 DEPLOYED SPRING 15 Working with Spring Boot Actuator 16 Administering Spring 17 Monitoring Spring with JMX 18 Deploying Spring

The Definitive Guide to Spring Batch - Michael T. Minella 2019-07-08

Work with all aspects of batch processing in a modern Java environment using a selection of Spring frameworks. This book provides up-to-date examples using the latest configuration techniques based on Java configuration and Spring Boot. The Definitive Guide to Spring Batch takes you from the "Hello, World!" of batch processing to complex scenarios demonstrating cloud native techniques for developing batch applications to be run on modern platforms. Finally this book demonstrates how you can use areas of the Spring portfolio beyond just Spring Batch 4 to collaboratively develop mission-critical batch processes. You'll see how a new class of use cases and platforms has evolved to have an impact on batch-processing. Data science and big data have become prominent in modern IT and the use of batch processing to orchestrate workloads has become commonplace. The Definitive Guide to Spring Batch covers how running finite tasks on cloud infrastructure in a standardized way has changed where batch applications are run. Additionally, you'll discover how Spring Batch 4 takes advantage of Java 9, Spring Framework 5, and the new Spring Boot 2 micro-framework. After reading this book, you'll be able to use Spring Boot to simplify the development of your own Spring projects, as well as take advantage of Spring Cloud Task and Spring Cloud Data Flow for added cloud native functionality. Includes a foreword by Dave Syer, Spring Batch project founder. What You'll Learn Discover what is new in Spring Batch 4 Carry out finite batch processing in the cloud using the Spring Batch project Understand the newest configuration techniques based on Java configuration and Spring Boot using practical examples Master batch processing in complex scenarios including in the cloud Develop batch applications to be run on modern platforms Use areas of the Spring

portfolio beyond Spring Batch to develop mission-critical batch processes Who This Book Is For Experienced Java and Spring coders new to the Spring Batch platform. This definitive book will be useful in allowing even experienced Spring Batch users and developers to maximize the Spring Batch tool.

Spring Roo in Action - Ken Rimple 2012-04-12

Summary Spring Roo in Action is a unique book that teaches you how to code Java in Roo, with a particular focus on Spring-based applications. Through hands-on examples, you'll learn how Roo creates well-formed application structures and supports best practices and tools. Plus, you'll get a quick-and-dirty guide to setting up Roo effectively in your environment. About the Technology Roo is a lightweight Java console shell that simplifies compile-time tasks. It improves productivity by enforcing correct coding practices and patterns and integrates with mainstream Java technologies, including ActiveMQ, GWT, JPA, and OSGi. And, when you finish coding, it gets out of the way so there's no runtime impact. About the Book Spring Roo in Action teaches you to code Java more efficiently using Roo. With the help of many examples, it shows you how to build application components from the database layer to the user interface. The book takes a test-first approach and points out how Roo can help automate many of the mundane details of coding Java apps. Along the way, you'll address important topics like security, messaging, and cloud computing. This book is for Java developers who want to get more productive by using Roo. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

What's Inside Learn Roo from the ground up Integrate with existing projects Create custom add-ons Use Roo with Spring ===== Table of Contents PART 1 STARTING SPRING APPS RAPIDLY WITH ROO What is Spring Roo? Getting started with Roo PART 2 DATABASES AND ENTITIES Database persistence with entities Relationships, JPA, and advanced persistence PART 3 WEB DEVELOPMENT Rapid web applications with Roo Advanced web applications RIA and other web frameworks Configuring security PART 4 INTEGRATION Testing your application Enterprise services—email and messaging Roo add-ons Advanced add-ons and deployment PART 5 ROO IN THE CLOUD Cloud computing Workflow applications using Spring Integration

Spring Start Here - Laurentiu Spilca 2021-11-02

"Spring Start Here teaches Java developers how to build applications using Spring framework. Informative graphics, relevant examples, and author Laurentiu Spilca's clear and lively writing make it easy to pick up the skills you need. You'll discover how to plan, write, and test applications. And by concentrating on the most important features, this no-nonsense book gives you a firm foundation for exploring Spring's rich ecosystem"--Back cover.

Spring Security in Action - Laurentiu Spilca 2020-11-03

Spring Security in Action shows you how to prevent cross-site scripting and request forgery attacks before they do damage. You'll start with the basics, simulating password upgrades and adding multiple types of authorization. As your skills grow, you'll adapt Spring Security to new architectures and create advanced OAuth2 configurations. By the time you're done, you'll have a customized Spring Security configuration that protects against threats both common and extraordinary. Summary While creating secure applications is critically important, it can also be tedious and time-consuming to stitch together the required collection of tools. For Java developers, the powerful Spring Security framework makes it easy for you to bake security into your software from the very beginning. Filled with code samples and practical examples, Spring Security in Action teaches you how to secure your apps from the most common threats, ranging from injection attacks to lackluster monitoring. In it, you'll learn how to manage system users, configure secure endpoints, and use OAuth2 and OpenID Connect for authentication and authorization. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Security is non-negotiable. You rely on Spring applications to transmit data, verify credentials, and prevent attacks. Adopting "secure by design" principles will protect your network from data theft and unauthorized intrusions. About the book Spring Security in Action shows you how to prevent cross-site scripting and request forgery attacks before they do damage. You'll start with the basics, simulating password upgrades and adding multiple types of authorization. As your skills grow, you'll adapt Spring Security to new architectures and create advanced OAuth2 configurations. By the time you're done, you'll have a customized Spring Security configuration that protects against threats both common and

extraordinary. What's inside Encoding passwords and authenticating users Securing endpoints Automating security testing Setting up a standalone authorization server About the reader For experienced Java and Spring developers. About the author Laurentiu Spilca is a dedicated development lead and trainer at Endava, with over ten years of Java experience. Table of Contents PART 1 - FIRST STEPS 1 Security Today 2 Hello Spring Security PART 2 - IMPLEMENTATION 3 Managing users 4 Dealing with passwords 5 Implementing authentication 6 Hands-on: A small secured web application 7 Configuring authorization: Restricting access 8 Configuring authorization: Applying restrictions 9 Implementing filters 10 Applying CSRF protection and CORS 11 Hands-on: A separation of responsibilities 12 How does OAuth 2 work? 13 OAuth 2: Implementing the authorization server 14 OAuth 2: Implementing the resource server 15 OAuth 2: Using JWT and cryptographic signatures 16 Global method security: Pre- and postauthorizations 17 Global method security: Pre- and postfiltering 18 Hands-on: An OAuth 2 application 19 Spring Security for reactive apps 20 Spring Security testing

Java Persistence with Hibernate - Gary Gregory 2015-10-27

Summary Java Persistence with Hibernate, Second Edition explores Hibernate by developing an application that ties together hundreds of individual examples. In this revised edition, authors Christian Bauer, Gavin King, and Gary Gregory cover Hibernate 5 in detail with the Java Persistence 2.1 standard (JSR 338). All examples have been updated for the latest Hibernate and Java EE specification versions. About the Technology Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. Persistence—the ability of data to outlive an instance of a program—is central to modern applications. Hibernate, the most popular Java persistence tool, offers automatic and transparent object/relational mapping, making it a snap to work with SQL databases in Java applications. About the Book Java Persistence with Hibernate, Second Edition explores Hibernate by developing an application that ties together hundreds of individual examples. You'll immediately dig into the rich programming model of Hibernate, working through mappings, queries, fetching strategies, transactions, conversations, caching, and more. Along the way you'll find a well-illustrated discussion of best practices in database design and optimization techniques. In this revised edition, authors Christian Bauer, Gavin King, and Gary Gregory cover Hibernate 5 in detail with the Java Persistence 2.1 standard (JSR 338). All examples have been updated for the latest Hibernate and Java EE specification versions. What's Inside Object/relational mapping concepts Efficient database application design Comprehensive Hibernate and Java Persistence reference Integration of Java Persistence with EJB, CDI, JSF, and JAX-RS * Unmatched breadth and depth About the Reader The book assumes a working knowledge of Java. About the Authors Christian Bauer is a member of the Hibernate developer team and a trainer and consultant. Gavin King is the founder of the Hibernate project and a member of the Java Persistence expert group (JSR 220). Gary Gregory is a principal software engineer working on application servers and legacy integration. Table of Contents PART 1 GETTING STARTED WITH ORM Understanding object/relational persistence Starting a project Domain models and metadata PART 2 MAPPING STRATEGIES Mapping persistent classes Mapping value types Mapping inheritance Mapping collections and entity associations Advanced entity association mappings Complex and legacy schemas PART 3 TRANSACTIONAL DATA PROCESSING Managing data Transactions and concurrency Fetch plans, strategies, and profiles Filtering data PART 4 WRITING QUERIES Creating and executing queries The query languages Advanced query options Customizing SQL

Building Applications with Spring 5 and Vue.js 2 - James J. Ye 2018-10-26

Become efficient in both frontend and backend web development with Spring and Vue Key Features Connect application's frontend and backend with Vue, Vuex, and Spring Boot Leverage the latest web standards to enhance code performance, readability, and cross-compatibility Build secure full-stack web applications with Spring Security Book Description Building Applications with Spring 5 and Vue.js 2, with its practical approach, helps you become a full-stack web developer. As well as knowing how to write frontend and backend code, a developer has to tackle all problems encountered in the application development life cycle - starting from the simple idea of an application, to the UI and technical designs, and all the way to implementation, testing, production deployment, and monitoring. With the help of this book, you'll get to grips with Spring 5 and Vue.js 2 as you learn how to develop a web application. From the initial structuring to full deployment, you'll be guided at every step of developing a web application from scratch

with Vue.js 2 and Spring 5. You'll learn how to create different components of your application as you progress through each chapter, followed by exploring different tools in these frameworks to expedite your development cycle. By the end of this book, you'll have gained a complete understanding of the key design patterns and best practices that underpin professional full-stack web development. What you will learn Analyze requirements and design data models Develop a single-page application using Vue.js 2 and Spring 5 Practice concept, logical, and physical data modeling Design, implement, secure, and test RESTful API Add test cases to improve reliability of an application Monitor and deploy your application to production Who this book is for Building Applications with Spring 5.0 and Vue.js 2.0 is for you if you are developer who is new to Vue.js or Spring. It is assumed that you have some knowledge of HTML, CSS, and Java.

Cloud Native Microservices with Spring and Kubernetes - Rajiv Srivastava 2021-07-03

Build and deploy scalable cloud native microservices using the Spring framework and Kubernetes. KEY FEATURES ● Complete coverage on how to design, build, run, and deploy modern cloud native microservices. ● Includes numerous sample code exercises on microservices, Spring and Kubernetes. ● Develop a stronghold on Kubernetes, Spring, and the microservices architecture. ● Complete guide of application containerization on Kubernetes containers. ● Coverage on managing modern applications and infrastructure using observability tools. DESCRIPTION The main objective of this book is to give an overview of cloud native microservices, their architecture, design patterns, best practices, real use cases and practical coverage of modern applications. This book covers a strong understanding of the fundamentals of microservices, API first approach, Testing, observability, API Gateway, Service Mesh and Kubernetes alternatives of Spring Cloud. This book covers the implementation of various design patterns of developing cloud native microservices using Spring framework docker and Kubernetes libraries. It covers containerization concepts and hands-on lab exercises like how to build, run and manage microservices applications using Kubernetes. After reading this book, the readers will have a holistic understanding of building, running, and managing cloud native microservices applications on Kubernetes containers. WHAT YOU WILL LEARN ● Learn fundamentals of microservice and design patterns. ● Learn microservices development using Spring Boot and Kubernetes. ● Learn to develop reactive, event-driven, and batch microservices. ● Perform end-to-end microservices testing using Cucumber. ● Implement API gateway, authentication & authorization, load balancing, caching, rate limiting. ● Learn observability and monitoring techniques of microservices. WHO THIS BOOK IS FOR This book is for the Spring Developers, Microservice Developers, Cloud Engineers, DevOps Consultants, Technical Architect and Solution Architects, who have some familiarity with application development, Docker and Kubernetes containers. TABLE OF CONTENTS 1. Overview of Cloud Native microservices 2. Microservice design patterns 3. API first approach 4. Build microservices using the Spring Framework 5. Batch microservices 6. Build reactive and event-driven microservices 7. The API gateway, security, and distributed caching with Redis 8. Microservices testing and API mocking 9. Microservices observability 10. Containers and Kubernetes overview and architecture 11. Run microservices on Kubernetes 12. Service Mesh and Kubernetes alternatives of Spring Cloud

Mastering Spring Boot 2.0 - Dinesh Rajput 2018-05-31

Learn to develop, test, and deploy your Spring Boot distributed application and explore various best practices. Key Features Build and deploy your microservices architecture in the cloud Build event-driven resilient systems using Hystrix and Turbine Explore API management tools such as KONG and API documentation tools such as Swagger Book Description Spring is one of the best frameworks on the market for developing web, enterprise, and cloud ready software. Spring Boot simplifies the building of complex software dramatically by reducing the amount of boilerplate code, and by providing production-ready features and a simple deployment model. This book will address the challenges related to power that come with Spring Boot's great configurability and flexibility. You will understand how Spring Boot configuration works under the hood, how to overwrite default configurations, and how to use advanced techniques to prepare Spring Boot applications to work in production. This book will also introduce readers to a relatively new topic in the Spring ecosystem - cloud native patterns, reactive programming, and applications. Get up to speed with microservices with Spring Boot and Spring Cloud. Each chapter aims to solve a specific

problem or teach you a useful skillset. By the end of this book, you will be proficient in building and deploying your Spring Boot application. What you will learn Build logically structured and highly maintainable Spring Boot applications Configure RESTful microservices using Spring Boot Make the application production and operation-friendly with Spring Actuator Build modern, high-performance distributed applications using cloud patterns Manage and deploy your Spring Boot application to the cloud (AWS) Monitor distributed applications using log aggregation and ELK Who this book is for The book is targeted at experienced Spring and Java developers who have a basic knowledge of working with Spring Boot. The reader should be familiar with Spring Boot basics, and aware of its benefits over traditional Spring Framework-based applications.

Building Microservices with Micronaut® - Nirmal Singh 2021-09-30

Explore different aspects of building modular microservices such as development, testing, maintenance, and deployment using the Micronaut framework Key Features Learn how to build scalable, fast, and resilient microservices with this concise guide Explore the many advantages of using reflection-free, compile-time dependency injections and aspect-oriented programming Build cloud-native applications easily with the Micronaut framework Book Description The open source Micronaut® framework is a JVM-based toolkit designed to create microservices quickly and easily. This book will help full-stack and Java developers build modular, high-performing, and reactive microservice-based apps using the Micronaut framework. You'll start by building microservices and learning about the core components, such as ahead-of-time compilation, reflection-less dependency injection, and reactive baked-in HTTP clients and servers. Next, you will work on a real-time microservice application and learn how to integrate Micronaut projects with different kinds of relational and non-relational databases. You'll also learn how to employ different security mechanisms to safeguard your microservices and integrate microservices using event-driven architecture in the Apache Kafka ecosystem. As you advance, you'll get to grips with automated testing and popular testing tools. The book will help you understand how you can easily handle microservice concerns in Micronaut projects, such as service discovery, API documentation, distributed configuration management, fallbacks, and circuit breakers. Finally, you'll explore the deployment and maintenance aspects of microservices and get up to speed with the Internet of Things (IoT) using the Framework. By the end of this book, you'll be able to build, test, deploy, and maintain your own microservice apps using the framework. What you will learn Understand why the Micronaut framework is best suited for building microservices Build web endpoints and services in the Micronaut framework Safeguard microservices using Session, JWT, and OAuth in Micronaut projects Get to grips with event-driven architecture in Micronaut applications Discover how to automate testing at various levels using built-in tools and testing frameworks Deploy your microservices to containers and cloud platforms Become well-versed with distributed logging, tracing, and monitoring in Micronaut projects Get hands-on with the IoT using Alexa and the Micronaut framework Who this book is for This book is for developers who have been building microservices on traditional frameworks such as Spring Boot and are looking for a faster alternative. Intermediate-level knowledge of Java programming and implementing web services development in Java is required.

Hands-On Reactive Programming in Spring 5 - Oleh Dokuka 2018-10-08

Explore the reactive system and create efficient microservices with Spring Boot 2.1 and Spring Cloud Key Features Understand the kind of system modern businesses require with Spring Gain deeper insights into reactive programming with Reactor and Spring Cloud Get in-depth knowledge on asynchronous and nonblocking communication with Spring 5 WebFlux Book Description These days, businesses need a new type of system that can remain responsive at all times. This is achievable with reactive programming; however, the development of these kinds of systems is a complex task, requiring a deep understanding of the domain. In order to develop highly responsive systems, the developers of the Spring Framework came up with Project Reactor. Hands-On Reactive Programming in Spring 5 begins with the fundamentals of Spring Reactive programming. You'll explore the endless possibilities of building efficient reactive systems with the Spring 5 Framework along with other tools such as WebFlux and Spring Boot. Further on, you'll study reactive programming techniques and apply them to databases and cross-server communication. You will advance your skills in scaling up Spring Cloud Streams and run independent, high-performant reactive

microservices. By the end of the book, you will be able to put your skills to use and get on board with the reactive revolution in Spring 5.1! What you will learn Discover the difference between a reactive system and reactive programming Explore the benefits of a reactive system and understand its applications Get to grips with using reactive programming in Spring 5 Gain an understanding of Project Reactor Build a reactive system using Spring 5 and Project Reactor Create a highly efficient reactive microservice with Spring Cloud Test, monitor, and release reactive applications Who this book is for This book is for Java developers who use Spring to develop their applications and want to build robust and reactive applications that can scale in the cloud. Basic knowledge of distributed systems and asynchronous programming will help you understand the concepts covered in this book.

Spring in Action - Craig Walls 2019

Spring Framework makes life easier for Java developers. New features in Spring 5 bring its productivity-focused approach to microservices, reactive development, and other modern application designs. With Spring Boot now fully integrated, you can start even complex projects with minimal configuration code. And the upgraded WebFlux framework supports reactive apps right out of the box! "Spring in action, fifth edition" guides you through Spring's core features, explained in Craig Walls' famously clear style. You'll roll up your sleeves and build a secure database-backed web app step by step. Along the way, you'll explore reactive programming, microservices, service discovery, RESTful APIs, deployment, and expert best practices. Whether you're just discovering Spring or leveling up to Spring 5, this manning classic is your ticket!

Java Coding Problems - Anghel Leonard 2019-09-20

Develop your coding skills by exploring Java concepts and techniques such as Strings, Objects and Types, Data Structures and Algorithms, Concurrency, and Functional programming Key Features Solve Java programming challenges and get interview-ready by using the power of modern Java 11 Test your Java skills using language features, algorithms, data structures, and design patterns Explore areas such as web development, mobile development, and GUI programming Book Description The super-fast evolution of the JDK between versions 8 and 12 has increased the learning curve of modern Java, therefore has increased the time needed for placing developers in the Plateau of Productivity. Its new features and concepts can be adopted to solve a variety of modern-day problems. This book enables you to adopt an objective approach to common problems by explaining the correct practices and decisions with respect to complexity, performance, readability, and more. Java Coding Problems will help you complete your daily tasks and meet deadlines. You can count on the 300+ applications containing 1,000+ examples in this book to cover the common and fundamental areas of interest: strings, numbers, arrays, collections, data structures, date and time, immutability, type inference, Optional, Java I/O, Java Reflection, functional programming, concurrency and the HTTP Client API. Put your skills on steroids with problems that have been carefully crafted to highlight and cover the core knowledge that is accessed in daily work. In other words (no matter if your task is easy, medium or complex) having this knowledge under your tool belt is a must, not an option. By the end of this book, you will have gained a strong understanding of Java concepts and have the confidence to develop and choose the right solutions to your problems. What you will learn Adopt the latest JDK 11 and JDK 12 features in your applications Solve cutting-edge problems relating to collections and data structures Get to grips with functional-style programming using lambdas Perform asynchronous communication and parallel data processing Solve strings and number problems using the latest Java APIs Become familiar with different aspects of object immutability in Java Implement the correct practices and clean code techniques Who this book is for If you are a Java developer who wants to level-up by solving real-world problems, then this book is for you. Working knowledge of Java is required to get the most out of this book.

BMC Control-M 7 - Qiang Ding 2012-10-10

Master one of the world's most powerful enterprise workload automation tools? BMC Control-M 7 - using this book and eBook.

Spring Batch in Action - Arnaud Cogoluegnes 2011-09-30

Summary Spring Batch in Action is an in-depth guide to writing batch applications using Spring Batch. Written for developers who have basic knowledge of Java and the Spring lightweight container, the book provides both a best-practices approach to writing batch jobs and comprehensive coverage of the Spring

Batch framework. About the Technology Even though running batch jobs is a common task, there's no standard way to write them. Spring Batch is a framework for writing batch applications in Java. It includes reusable components and a solid runtime environment, so you don't have to start a new project from scratch. And it uses Spring's familiar programming model to simplify configuration and implementation, so it'll be comfortably familiar to most Java developers. About the Book Spring Batch in Action is a thorough, in-depth guide to writing efficient batch applications. Starting with the basics, it discusses the best practices of batch jobs along with details of the Spring Batch framework. You'll learn by working through dozens of practical, reusable examples in key areas like monitoring, tuning, enterprise integration, and automated testing. No prior batch programming experience is required. Basic knowledge of Java and Spring is assumed. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Batch programming from the ground up Implementing data components Handling errors during batch processing Automating tedious tasks Table of Contents PART 1 BACKGROUND Introducing Spring Batch Spring Batch concepts PART 2 CORE SPRING BATCH Batch configuration Running batch jobs Reading data Writing data Processing data Implementing bulletproof jobs Transaction management PART 3 ADVANCED SPRING BATCH Controlling execution Enterprise integration Monitoring jobs Scaling and parallel processing Testing batch applications

Spring 5 Recipes - Marten Deinum 2017-10-11

Solve all your Spring 5 problems using complete and real-world code examples. When you start a new project, you'll be able to copy the code and configuration files from this book, and then modify them for your needs. This can save you a great deal of work over creating a project from scratch. The recipes in Spring 5 Recipes cover Spring fundamentals such as Spring IoC container, Spring AOP/ AspectJ, and more. Other recipes include Spring enterprise solutions for topics such as Spring Java EE integration, Spring Integration, Spring Batch, Spring Remoting, messaging, transactions, and working with big data and the cloud using Hadoop and MongoDB. Finally, Spring web recipes cover Spring MVC, other dynamic scripting, integration with the popular Grails Framework (and Groovy), REST/web services, and more. You'll also see recipes on new topics such as Spring Framework 5, reactive Spring, Spring 5 microservices, the functional web framework and much more. This book builds upon the best-selling success of the previous editions and focuses on the latest Spring Framework features for building enterprise Java applications. What You'll Learn Get re-usable code recipes and snippets for core Spring, annotations and other development tools Access Spring MVC for web development Work with Spring REST and microservices for web services development and integration into your enterprise Java applications Use Spring Batch, NoSQL and big data for building and integrating various cloud computing services and resources Integrate Java Enterprise Edition and other Java APIs for use in Spring Use Grails code and much more Who This Book Is For Experienced Java and Spring programmers.

Spring Boot 2 Recipes - Marten Deinum 2019-03-14

Solve all your Spring Boot 2 problems using complete and real-world code examples. When you start a new project, you'll be able to copy the code and configuration files from this book, and then modify them for your needs. This can save you a great deal of work over creating a project from scratch. Using a problem-solution approach, Spring Boot 2 Recipes quickly introduces you to Pivotal's Spring Boot 2 micro-framework, then dives into code snippets on how to apply and integrate Spring Boot 2 with the Spring MVC web framework, Spring Web Sockets, and microservices. You'll also get solutions to common problems with persistence, integrating Spring Boot with batch processing, algorithmic programming via Spring Batch, and much more. Other recipes cover topics such as using and integrating Boot with Spring's enterprise services, Spring Integration, testing, monitoring and more. What You'll Learn Get reusable code recipes and snippets for the Spring Boot 2 micro-framework Discover how Spring Boot 2 integrates with other Spring APIs, tools, and frameworks Access Spring MVC and the new Spring Web Sockets for simpler web development Work with microservices for web services development and integration with your Spring Boot applications Add persistence and a data tier seamlessly to make your Spring Boot web application do more Integrate enterprise services to create a more complex Java application using Spring Boot Who This Book Is For Experienced Java and Spring programmers.

Spring Boot Messaging - Felipe Gutierrez 2017-05-03

Build messaging applications using the power of Spring Boot; use Spring application events over the Web; use WebSocket, SockJS, and STOMP messaging with Spring MVC; and use Spring JMS, Redis Pub/Sub and Spring AMQP for reliable messaging solutions. This book covers all the Spring Messaging APIs using Spring Boot. Written by a Pivotal engineer, Spring Boot Messaging is an authoritative guide to the many messaging APIs and how to use these for creating enterprise and integration solutions. You will learn and integrate these messaging APIs with more complex enterprise and cloud applications: for example, you will see how to use Spring Cloud Stream for creating message-driven and cloud native microservices. In addition, you'll discover the new Spring Integration DSL and use it with Spring Cloud Stream to build integration solutions using every enterprise integration pattern. Finally, you'll see Spring Reactor and Spring Cloud to take your application to the next level. After reading this book, you will come away with a case study application walk-through and will be able to use it as a template for building your own Spring messaging applications or messaging features within your enterprise or cloud application. What You'll Learn Use the main Spring messaging APIs with Spring Framework 5 Build messaging applications over the Web Use WebSocket, SockJS, and STOMP messaging Integrate Spring JMS and Spring AMQP into your applications Work with Spring Cloud Stream and microservices Who This Book Is For Enterprise Java developers who have at least some previous experience with the Spring Framework and/or the Spring platform.

ActiveMQ in Action - Dejan Bosanac 2011-03-30

Applications in enterprises need to communicate, most commonly done by messaging. Apache ActiveMQ is an open-source implementation of the Java Message Service (JMS), which provides messaging in Java applications. ActiveMQ in Action is a thorough, practical guide to implementing message-oriented systems using ActiveMQ and Java. Co-authored by one of the leading ActiveMQ developers, Bruce Snyder, the book starts with the anatomy of a core Java message, then moves quickly through fundamentals including data persistence, authentication and authorization. Later chapters cover advanced features such as configuration and performance tuning, illustrating each concept with a running real-world stock portfolio application. Readers will learn to integrate ActiveMQ with Apache Geronimo and JBoss, and tie into both Java and non-Java technologies including AJAX, .NET, C++, Ruby, and the Spring framework. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

Pro Spring 5 - Iuliana Cosmina 2017-10-11

Master Spring basics and core topics, and share the authors' insights and real-world experiences with remoting, Hibernate, and EJB. Beyond the basics, you'll learn how to leverage the Spring Framework to build the various tiers and parts of an enterprise Java application: transactions, web and presentation tiers, deployment, and much more. A full sample application allows you to apply many of the technologies and techniques covered in Pro Spring 5 and see how they work together. This book updates the perennial bestseller with the latest that the new Spring Framework 5 has to offer. Now in its fifth edition, this popular title is by far the most comprehensive and definitive treatment of Spring available. It covers the new functional web framework and interoperability with Java 9. After reading this definitive book, you'll be armed with the power of Spring to build complex Spring applications, top to bottom. The agile, lightweight, open-source Spring Framework continues to be the de facto leading enterprise Java application development framework for today's Java programmers and developers. It works with other leading open-source, agile, and lightweight Java technologies such as Hibernate, Groovy, MyBatis, and more. Spring now works with Java EE and JPA 2 as well. What You'll Learn Discover what's new in Spring Framework 5 Use the Spring Framework with Java 9 Master data access and transactions Work with the new functional web framework Create microservices and other web services Who This Book Is For Experienced Java and enterprise Java developers and programmers. Some experience with Spring highly recommended.

Spring Boot: Up and Running - Mark Heckler 2021-02-05

With over 75 million downloads per month, Spring Boot is the most widely used Java framework available. Its ease and power have revolutionized application development from monoliths to microservices. Yet Spring Boot's simplicity can also be confounding. How do developers learn enough to be productive immediately? This practical book shows you how to use this framework to write successful mission-critical

applications. Mark Heckler from VMware, the company behind Spring, guides you through Spring Boot's architecture and approach, covering topics such as debugging, testing, and deployment. If you want to develop cloud native Java or Kotlin applications with Spring Boot rapidly and effectively--using reactive programming, building APIs, and creating database access of all kinds--this book is for you. Learn how Spring Boot simplifies cloud native application development and deployment Build reactive applications and extend communication across the network boundary to create distributed systems Understand how Spring Boot's architecture and approach increase developer productivity and application portability Deploy Spring Boot applications for production workloads rapidly and reliably Monitor application and system health for optimal performance and reliability Debug, test, and secure cloud-based applications painlessly

[Spring REST](#) - Balaji Varanasi 2015-06-19

Spring REST is a practical guide for designing and developing RESTful APIs using the Spring Framework. This book walks you through the process of designing and building a REST application while taking a deep dive into design principles and best practices for versioning, security, documentation, error handling, paging, and sorting. This book provides a brief introduction to REST, HTTP, and web infrastructure. You will learn about several Spring projects such as Spring Boot, Spring MVC, Spring Data JPA, and Spring Security and the role they play in simplifying REST application development. You will learn how to build clients that consume REST services. Finally, you will learn how to use the Spring MVC test framework to unit test and integration test your REST API. After reading this book, you will come away with all the skills to build sophisticated REST applications using Spring technologies.

[Spring Batch in Action](#) - Arnaud Cogoluegnes 2011-08-28

Summary Spring Batch in Action is an in-depth guide to writing batch applications using Spring Batch. Written for developers who have basic knowledge of Java and the Spring lightweight container, the book provides both a best-practices approach to writing batch jobs and comprehensive coverage of the Spring Batch framework. About the Technology Even though running batch jobs is a common task, there's no standard way to write them. Spring Batch is a framework for writing batch applications in Java. It includes reusable components and a solid runtime environment, so you don't have to start a new project from scratch. And it uses Spring's familiar programming model to simplify configuration and implementation, so it'll be comfortably familiar to most Java developers. About the Book Spring Batch in Action is a thorough, in-depth guide to writing efficient batch applications. Starting with the basics, it discusses the best practices of batch jobs along with details of the Spring Batch framework. You'll learn by working through dozens of practical, reusable examples in key areas like monitoring, tuning, enterprise integration, and automated testing. No prior batch programming experience is required. Basic knowledge of Java and Spring is assumed. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Batch programming from the ground up Implementing data components Handling errors during batch processing Automating tedious tasks Table of Contents PART 1 BACKGROUND Introducing Spring Batch Spring Batch concepts PART 2 CORE SPRING BATCH Batch configuration Running batch jobs Reading data Writing data Processing data Implementing bulletproof jobs Transaction management PART 3 ADVANCED SPRING BATCH Controlling execution Enterprise integration Monitoring jobs Scaling and parallel processing Testing batch applications

[SonarQube in Action](#) - Patroklos Papapetrou 2013-10-30

Summary SonarQube in Action shows developers how to use the SonarQube platform to help them continuously improve their source code. The book presents SonarQube's core Seven Axes of Quality: design/architecture, duplications, comments, unit tests, complexity, potential bugs, and coding rules. You'll find simple, easy-to-follow discussion and examples as you learn to integrate SonarQube into your development process. About the Technology SonarQube is a powerful open source tool for continuous inspection, a process that makes code quality analysis and reporting an integral part of the development lifecycle. Its unique dashboards, rule-based defect analysis, and tight build integration result in improved code quality without disruption to developer workflow. It supports many languages, including Java, C, C++, C#, PHP, and JavaScript. About the Book SonarQube in Action teaches you how to effectively use SonarQube following the continuous inspection model. This practical book systematically explores SonarQube's core Seven Axes of Quality (design, duplications, comments, unit tests, complexity, potential

bugs, and coding rules). With well-chosen examples, it helps you learn to use SonarQube's review functionality and IDE integration to implement continuous inspection best practices in your own quality management process. The book's Java-based examples translate easily to other development languages. No prior experience with SonarQube or continuous delivery practice is assumed Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Gather meaningful quality metrics Integrate with Ant, Maven, and Jenkins Write your own plugins Master the art of continuous inspection About the Authors Ann Campbell and Patroklos Papapetrou are experienced developers and team leaders. Both actively contribute to the SonarQube community. Table of Contents PART 1 WHAT THE NUMBERS ARE TELLING YOU An introduction to SonarQube Issues and coding standards Ensuring that your code is doing things right Working with duplicate code Optimizing source code documentation Keeping your source code files elegant Improving your application design PART 2 SETTLING IN WITH SONARQUBE Planning a strategy and expanding your insight Continuous Inspection with SonarQube Letting SonarQube drive code reviews IDE integration PART 3 ADMINISTERING AND EXTENDING Security: users, groups, and roles Rule profile administration Making SonarQube fit your needs Managing your projects Writing your own plugins

[Pivotal Certified Spring Enterprise Integration Specialist Exam](#) - Lubos Krnac 2015-11-13

Exam topics covered include tasks and scheduling, remoting, the Spring Web Services framework, RESTful services with Spring MVC, the Spring JMS module, JMS and JTA transactions with Spring, batch processing with Spring Batch and the Spring Integration framework. Prepare with confidence for the Pivotal Enterprise Integration with Spring Exam. One of the important aspects of this book is a focus on new and modern abstractions provided by Spring. Therefore most of the features are shown with Java annotations alongside established XML configurations. Most of the examples in the book are also based on the Spring Boot framework. Spring Boot adoption is exponential because of its capability to significantly simplify Spring configuration using sensible opinionated defaults. But Spring Boot is not the target of the exam, therefore all the features are also covered with plain Spring configuration examples. How to use Spring to create concurrent applications and schedule tasks How to do remoting to implement client-server applications How to work with Spring Web services to create loosely coupled Web services and clients How to use Spring MVC to create RESTful web services and clients How to integrate JMS for asynchronous messaging-based communication How to use local JMS transactions with Spring How to configure global JTA transactions with Spring How to use Spring Integration to create event-driven pipes-and-filters architectures and integrate with external applications How to use Spring Batch for managed, scalable batch processing that is based on both custom and built-in processing components

[Enterprise Integration Patterns](#) - Gregor Hohpe 2012-03-09

Enterprise Integration Patterns provides an invaluable catalog of sixty-five patterns, with real-world solutions that demonstrate the formidable of messaging and help you to design effective messaging solutions for your enterprise. The authors also include examples covering a variety of different integration technologies, such as JMS, MSMQ, TIBCO ActiveEnterprise, Microsoft BizTalk, SOAP, and XSL. A case study describing a bond trading system illustrates the patterns in practice, and the book offers a look at emerging standards, as well as insights into what the future of enterprise integration might hold. This book provides a consistent vocabulary and visual notation framework to describe large-scale integration solutions across many technologies. It also explores in detail the advantages and limitations of asynchronous messaging architectures. The authors present practical advice on designing code that connects an application to a messaging system, and provide extensive information to help you determine when to send a message, how to route it to the proper destination, and how to monitor the health of a messaging system. If you want to know how to manage, monitor, and maintain a messaging system once it is in use, get this book.

[Pro Spring Batch](#) - Michael Minella 2011-10-13

Since its release, Spring Framework has transformed virtually every aspect of Java development including web applications, security, aspect-oriented programming, persistence, and messaging. Spring Batch, one of its newer additions, now brings the same familiar Spring idioms to batch processing. Spring Batch addresses the needs of any batch process, from the complex calculations performed in the biggest financial

institutions to simple data migrations that occur with many software development projects. Pro Spring Batch is intended to answer three questions: What? What is batch processing? What does it entail? What makes it different from the other applications we are developing? What are the challenges inherent in the development of a batch process? Why? Why do batch processing? Why can't we just process things as we get them? Why do we do batch processing differently than the web applications that we currently work on? How? How to implement a robust, scalable, distributed batch processing system using open-source frameworks Pro Spring Batch gives concrete examples of how each piece of functionality is used and why it would be used in a real-world application. This includes providing tips that the "school of hard knocks" has taught author Michael Minella during his experience with Spring Batch. Pro Spring Batch includes examples of I/O options that are not mentioned in the official user's guide, as well as performance tips on things like how to limit the impact of maintaining the state of your jobs. The author also walks you through, from end to end, the design and implementation of a batch process based upon a theoretical real-world example. This includes basic project setup, implementation, testing, tuning and scaling for large volumes.

Spring Integration in Action - Iwein Fuld 2012-09-18

Summary Spring Integration in Action is a hands-on guide to Spring-based messaging and integration. After addressing the core messaging patterns, such as those used in transformation and routing, the book turns to the adapters that enable integration with external systems. Readers will explore real-world enterprise integration scenarios using JMS, Web Services, file systems, and email. They will also learn about Spring Integration's support for working with XML. The book concludes with a practical guide to advanced topics such as concurrency, performance, system-management, and monitoring. The book features a foreword by Rod Johnson, Founder of the Spring Network. About the Technology Spring Integration extends the Spring Framework to support the patterns described in Gregor Hohpe and Bobby Woolf's Enterprise Integration Patterns. Like the Spring Framework itself, it focuses on developer productivity, making it easier to build, test, and maintain enterprise integration solutions. About the Book Spring Integration in Action is an introduction and guide to enterprise integration and messaging using the Spring Integration framework. The book starts off by reviewing core messaging patterns, such as those used in transformation and routing. It then drills down into real-world enterprise integration scenarios using JMS, Web Services, filesystems, email, and more. You'll find an emphasis on testing, along with practical coverage of topics like concurrency, scheduling, system management, and monitoring. This book is accessible to developers who know Java. Experience with Spring and EIP is helpful but not assumed. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Realistic examples Expert advice from Spring Integration creators Detailed coverage of Spring Integration 2 features About the Authors Mark Fisher is the Spring Integration founder and project lead. Jonas Partner, Marius Bogoevici, and Iwein Fuld have all been project committers and are recognized experts on Spring and Spring Integration. Table of Contents PART 1 BACKGROUND Introduction to Spring Integration Enterprise integration fundamentals 24 PART 2 MESSAGING Messages and channels Message Endpoints Getting down to business Go beyond sequential processing: routing and filtering Splitting and aggregating messages PART 3 INTEGRATING SYSTEMS Handling messages with XML payloads Spring Integration and the Java Message Service Email-based integration Filesystem integration Spring Integration and web services Chatting and tweeting PART 4 ADVANCED TOPICS Monitoring and management Managing scheduling and concurrency Batch applications and enterprise integration Scaling messaging applications with OSGi Testing

Spring Data Standard Guide - Petri Kainulainen 2012-11-05

Implement JPA repositories and harness the performance of Redis in your applications.

Spring Dynamic Modules in Action - Andy Piper 2010-09-03

Java EE developers increasingly want to utilize OSGi to develop modular applications for component and service-based architectures. But tools required for OSGi implementation have been slow to develop. Spring Dynamic Modules (Spring DM) is a framework that simplifies the creation of component and service-oriented architectures with OSGi, to build modular Java applications using the powerful Spring framework. Spring Dynamic Modules in Action presents the fundamental concepts of OSGi-based apps and maps them to the familiar ideas of the Spring framework. Then, it teaches the techniques and concepts required to

develop stable, flexible enterprise apps. Along the way, readers will learn to incorporate other topics including dependency injection and unit testing in an OSGi-based environment. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

Spring Data - Mark Pollack 2012-10-24

You can choose several data access frameworks when building Java enterprise applications that work with relational databases. But what about big data? This hands-on introduction shows you how Spring Data makes it relatively easy to build applications across a wide range of new data access technologies such as NoSQL and Hadoop. Through several sample projects, you'll learn how Spring Data provides a consistent programming model that retains NoSQL-specific features and capabilities, and helps you develop Hadoop applications across a wide range of use-cases such as data analysis, event stream processing, and workflow. You'll also discover the features Spring Data adds to Spring's existing JPA and JDBC support for writing RDBMS-based data access layers. Learn about Spring's template helper classes to simplify the use of database-specific functionality Explore Spring Data's repository abstraction and advanced query functionality Use Spring Data with Redis (key/value store), HBase (column-family), MongoDB (document database), and Neo4j (graph database) Discover the GemFire distributed data grid solution Export Spring Data JPA-managed entities to the Web as RESTful web services Simplify the development of HBase applications, using a lightweight object-mapping framework Build example big-data pipelines with Spring Batch and Spring Integration

Spring Boot Persistence Best Practices - Anghel Leonard 2020-04-29

This book is a collection of developer code recipes and best practices for persisting data using Spring, particularly Spring Boot. The book is structured around practical recipes, where each recipe discusses a performance case or performance-related case, and almost every recipe has one or more applications. Mainly, when we try to accomplish something (e.g., read some data from the database), there are several approaches to do it, and, in order to choose the best way, you have to know the implied trades-off from a performance perspective. You'll see that in the end, all these penalties slow down the application. Besides presenting the arguments that favor a certain choice, the application is written in Spring Boot style which is quite different than plain Hibernate. Persistence is an important set of techniques and technologies for accessing and using data, and this book demonstrates that data is mobile regardless of specific applications and contexts. In Java development, persistence is a key factor in enterprise, ecommerce, cloud and other transaction-oriented applications. After reading and using this book, you'll have the fundamentals to apply these persistence solutions into your own mission-critical enterprise Java applications that you build using Spring. What You Will Learn Shape *to-many associations for best performances Effectively exploit Spring Projections (DTO) Learn best practices for batching inserts, updates and deletes Effectively fetch parent and association in a single SELECT Learn how to inspect Persistent Context content Dissect pagination techniques (offset and keyset) Handle queries, locking, schemas, Hibernate types, and more Who This Book Is For Any Spring and Spring Boot developer that wants to squeeze the persistence layer performances.

Get Your Hands Dirty on Clean Architecture - Tom Hombergs 2019-09-30

Gain insight into how hexagonal architecture can help to keep the cost of development low over the complete lifetime of an application Key Features Explore ways to make your software flexible, extensible, and adaptable Learn new concepts that you can easily blend with your own software development style Develop the mindset of building maintainable solutions instead of taking shortcuts Book Description We would all like to build software architecture that yields adaptable and flexible software with low development costs. But, unreasonable deadlines and shortcuts make it very hard to create such an architecture. Get Your Hands Dirty on Clean Architecture starts with a discussion about the conventional layered architecture style and its disadvantages. It also talks about the advantages of the domain-centric architecture styles of Robert C. Martin's Clean Architecture and Alistair Cockburn's Hexagonal Architecture. Then, the book dives into hands-on chapters that show you how to manifest a hexagonal architecture in actual code. You'll learn in detail about different mapping strategies between the layers of a hexagonal architecture and see how to assemble the architecture elements into an application. The later chapters demonstrate how to enforce architecture boundaries. You'll also learn what shortcuts produce

what types of technical debt and how, sometimes, it is a good idea to willingly take on those debts. After reading this book, you'll have all the knowledge you need to create applications using the hexagonal architecture style of web development. What you will learn Identify potential shortcomings of using a layered architecture Apply methods to enforce architecture boundaries Find out how potential shortcuts can affect the software architecture Produce arguments for when to use which style of architecture Structure your code according to the architecture Apply various types of tests that will cover each element of the architecture Who this book is for This book is for you if you care about the architecture of the software you are building. To get the most out of this book, you must have some experience with web development. The code examples in this book are in Java. If you are not a Java programmer but can read object-oriented code in other languages, you will be fine. In the few places where Java or framework specifics are needed, they are thoroughly explained.

Data Lake for Enterprises - Tomcy John 2017-05-31

A practical guide to implementing your enterprise data lake using Lambda Architecture as the base About This Book Build a full-fledged data lake for your organization with popular big data technologies using the Lambda architecture as the base Delve into the big data technologies required to meet modern day business strategies A highly practical guide to implementing enterprise data lakes with lots of examples and real-world use-cases Who This Book Is For Java developers and architects who would like to implement a data lake for their enterprise will find this book useful. If you want to get hands-on experience with the Lambda Architecture and big data technologies by implementing a practical solution using these technologies, this book will also help you. What You Will Learn Build an enterprise-level data lake using the relevant big data technologies Understand the core of the Lambda architecture and how to apply it in an enterprise Learn the technical details around Sqoop and its functionalities Integrate Kafka with Hadoop components to acquire enterprise data Use flume with streaming technologies for stream-based processing Understand stream-based processing with reference to Apache Spark Streaming Incorporate Hadoop components and know the advantages they provide for enterprise data lakes Build fast, streaming, and high-performance applications using Elasticsearch Make your data ingestion process consistent across various data formats with configurability Process your data to derive intelligence using machine learning algorithms In Detail The term "Data Lake" has recently emerged as a prominent term in the big data industry. Data scientists can make use of it in deriving meaningful insights that can be used by businesses to redefine or transform the way they operate. Lambda architecture is also emerging as one of the very eminent patterns in the big data landscape, as it not only helps to derive useful information from historical data but also correlates real-time data to enable business to take critical decisions. This book tries to bring these two important aspects — data lake and lambda architecture—together. This book is divided into three main sections. The first introduces you to the concept of data lakes, the importance of data lakes in enterprises, and getting you up-to-speed with the Lambda architecture. The second section delves into the principal components of building a data lake using the Lambda architecture. It introduces you to popular big data technologies such as Apache Hadoop, Spark, Sqoop, Flume, and Elasticsearch. The third section is a highly practical demonstration of putting it all together, and shows you how an enterprise data lake can be implemented, along with several real-world use-cases. It also shows you how other peripheral components can be added to the lake to make it more efficient. By the end of this book, you will be able to choose the right big data technologies using the lambda architectural patterns to build your enterprise data lake. Style and approach The book takes a pragmatic approach, showing ways to leverage big data technologies and lambda architecture to build an enterprise-level data lake.

Microservices in Action - Morgan Bruce 2018-10-03

Summary Microservices in Action is a practical book about building and deploying microservice-based applications. Written for developers and architects with a solid grasp of service-oriented development, it tackles the challenge of putting microservices into production. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Invest your time in designing great applications, improving infrastructure, and making the most out of your dev teams. Microservices are easier to write, scale, and maintain than traditional enterprise applications because they're built as a system of independent components. Master a few important new patterns and processes, and you'll be ready to develop, deploy, and run production-quality microservices. About the Book Microservices in Action teaches you how to write and maintain microservice-based applications. Created with day-to-day development in mind, this informative guide immerses you in real-world use cases from design to deployment. You'll discover how microservices enable an efficient continuous delivery pipeline, and explore examples using Kubernetes, Docker, and Google Container Engine. What's inside An overview of microservice architecture Building a delivery pipeline Best practices for designing multi-service transactions and queries Deploying with containers Monitoring your microservices About the Reader Written for intermediate developers familiar with enterprise architecture and cloud platforms like AWS and GCP. About the Author Morgan Bruce and Paulo A. Pereira are experienced engineering leaders. They work daily with microservices in a production environment, using the techniques detailed in this book. Table of Contents PART 1 - The lay of the land Designing and running microservices Microservices at SimpleBank PART 2 - Design Architecture of a microservice application Designing new features Transactions and queries in microservices Designing reliable services Building a reusable microservice framework PART 3 - Deployment Deploying microservices Deployment with containers and schedulers Building a delivery pipeline for microservices PART 4 - Observability and ownership Building a monitoring system Using logs and traces to understand behavior Building microservice teams

[Spring Microservices in Action](#) - John Carnell 2017-06-11

Summary Spring Microservices in Action teaches you how to build microservice-based applications using Java and the Spring platform. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Microservices break up your code into small, distributed, and independent services that require careful forethought and design. Fortunately, Spring Boot and Spring Cloud simplify your microservice applications, just as the Spring Framework simplifies enterprise Java development. Spring Boot removes the boilerplate code involved with writing a REST-based service. Spring Cloud provides a suite of tools for the discovery, routing, and deployment of microservices to the enterprise and the cloud. About the Book Spring Microservices in Action teaches you how to build microservice-based applications using Java and the Spring platform. You'll learn to do microservice design as you build and deploy your first Spring Cloud application. Throughout the book, carefully selected real-life examples expose microservice-based patterns for configuring, routing, scaling, and deploying your services. You'll see how Spring's intuitive tooling can help augment and refactor existing applications with micro services. What's Inside Core microservice design principles Managing configuration with Spring Cloud Config Client-side resiliency with Spring, Hystrix, and Ribbon Intelligent routing using Netflix Zuul Deploying Spring Cloud applications About the Reader This book is written for developers with Java and Spring experience. About the Author John Carnell is a senior cloud engineer with twenty years of experience in Java. Table of contents Welcome to the cloud, Spring Building microservices with Spring Boot Controlling your configuration with Spring Cloud configuration server On service discovery When bad things happen: client resiliency patterns with Spring Cloud and Netflix Hystrix Service routing with Spring Cloud and Zuul Securing your microservices Event-driven architecture with Spring Cloud Stream Distributed tracing with Spring Cloud Sleuth and Zipkin Deploying your microservices