

Read Book Beginning Java And Flex Migrating Java Spring Hibernate And Maven Developers To Adobe Flex Experts Voice In Web Development Free Download Pdf

Beginning Java and Flex Spring Data Learn Microservices with Spring Boot 3 Cloud Native Java Java Persistence with Spring Data and Hibernate Learn Microservices with Spring Boot Hibernate Tips Spring: Developing Java Applications for the Enterprise Expert One-on-One J2EE Design and Development Spring Security Just Spring Data Access The Definitive Guide to Spring Web Flow Migrating Legacy Applications: Challenges in Service Oriented Architecture and Cloud Computing Environments Pivotal Certified Professional Core Spring 5 Developer Exam Spring Data Standard Guide Mastering Microservices with Java Pro Spring 5 Mastering Microservices with Java 9 Professional Java Development with the Spring Framework Spring Boot 2.0 Projects Beginning Spring 2 JUnit in Action, Third Edition Microservices Microservices Software Testing in the Cloud Java 9 Modularity Pro Spring Dynamic Modules for OSGi Service Platforms Get Your Hands Dirty on Clean Architecture Pivotal Certified Professional Spring Developer Exam Just Spring Data Access

Spring Boot in Action Spring Boot and Angular Java 9 Modularity Pivotal Certified Spring Enterprise Integration Specialist Exam Creating Your First Spring Boot Microservice Enterprise Integration Patterns Cracking Spring Microservices Interviews Clean Architecture Mastering Spring Cloud Pro Spring 3

JUnit in Action, Third Edition has been completely rewritten for this release. The book is full of examples that demonstrate JUnit's modern features, including its new architecture; nested, tagged, and dynamic tests; and dependency injection. Summary JUnit is the gold standard for unit testing Java applications. Filled with powerful new features designed to automate software testing, JUnit 5 boosts your productivity and helps avoid debugging nightmares. Whether you're just starting with JUnit or you want to ramp up on the new features, JUnit in Action, Third Edition has you covered. Extensively revised with new code and new chapters, JUnit in Action, Third Edition is an up-to-date guide to smooth software testing. Dozens of hands-on examples illustrate JUnit 5's innovations for dependency injection, nested testing, parameterized tests, and more. Throughout, you'll learn how to use JUnit 5 to automate your testing, for a process that consumes less resources, and gives you more time for developing. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology The JUnit framework is the gold standard for unit testing Java applications—and knowing it is an essential skill for Java developers. The latest version, JUnit 5, is a total overhaul, now supporting modern Java features like Lambdas and Streams. About the book JUnit in Action, Third Edition has been completely rewritten for this release. The book is full of examples that demonstrate JUnit's modern features, including its new architecture; nested, tagged, and dynamic tests; and dependency injection. You'll benefit from

author Catalin Tudose's unique "pyramid" testing strategy, which breaks the testing process into layers and sets you on the path to bug-free code creation. What's inside Migrating from JUnit 4 to 5 Effective test automation Test-driven development and behavior-driven development Using mocks for test isolation Connecting JUnit 5 with Maven or Gradle About the reader For intermediate Java developers. About the author Catalin Tudose has a Ph.D. in Computer Science, and over 15 years of experience as a Senior Java Developer and Technical Team Lead. Previous editions were authored by Petar Tahchiev, Felipe Leme, Gary Gregory, and Vincent Massol. Table of Contents PART 1 - JUNIT 1 JUnit jump-start 2 Exploring core JUnit 3 JUnit architecture 4 Migrating from JUnit 4 to JUnit 5 Software testing principles PART 2 - DIFFERENT TESTING STRATEGIES 6 Test quality 7 Coarse-grained testing with stubs 8 Testing with mock objects 9 In-container testing PART 3 - WORKING WITH JUNIT 5 AND OTHER TOOLS 10 Running JUnit tests from Maven 3 11 Running JUnit tests from Gradle 6 12 JUnit 5 IDE support 13 Continuous integration with JUnit 5 PART 4 - WORKING WITH MODERN FRAMEWORKS AND JUNIT 5 14 JUnit 5 extension model 15 Presentation-layer testing 16 Testing Spring applications 17 Testing Spring Boot applications 18 Testing a REST API 19 Testing database applications PART 5 - DEVELOPING APPLICATIONS WITH JUNIT 5 20 Test-driven development with JUnit 5 21 Behavior-driven development in JUnit 5 22 Implementing a test pyramid strategy with JUnit 5 Implement JPA repositories and harness the performance of Redis in your applications. Building upon the success of best-sellers The Clean Coder and Clean Code, legendary software craftsman Robert C. "Uncle Bob" Martin shows how to bring greater professionalism and discipline to application architecture and design. As with his other books, Martin's Clean Architecture doesn't merely present multiple choices and options, and say "use your best judgment": it tells you what choices to make, and why those choices are critical to your success.

Martin offers direct, is essential reading for every software architect, systems analyst, system designer, and software manager-- and for any programmer who aspires to these roles or is impacted by their work. Leverage the power of Spring MVC, Spring Boot, Spring Cloud, and additional popular web frameworks. About This Book Discover key Spring Framework-related technology standards such as Spring core, Spring-AOP, Spring data access frameworks, and Spring testing to develop robust Java applications easily This course is packed with tips and tricks that demonstrate Industry best practices on developing a Spring-MVC-based application Learn how to efficiently build and implement microservices in Spring, and how to use Docker and Mesos to push the boundaries and explore new possibilities Who This Book Is For This course is intended for Java developers interested in building enterprise-level applications with Spring Framework. Prior knowledge of Java programming and web development concepts (and a basic knowledge of XML) is expected. What You Will Learn Understand the architecture of Spring Framework and how to set up the key components of the Spring Application Development Environment Configure Spring Container and manage Spring beans using XML and Annotation Practice Spring AOP concepts such as Aspect, Advice, Pointcut, and Introduction Integrate bean validation and custom validation Use error handling and exception resolving Get to grips with REST-based web service development and Ajax Use Spring Boot to develop microservices Find out how to avoid common pitfalls when developing microservices Get familiar with end-to-end microservices written in Spring Framework and Spring Boot In Detail This carefully designed course aims to get you started with Spring, the most widely adopted Java framework, and then goes on to more advanced topics such as building microservices using Spring Boot within Spring. With additional coverage of popular web frameworks such as Struts, WebWork, Java Server Faces, Tapestry, Docker, and Mesos, you'll have all the skills and expertise you need to

build great applications. Starting with the Spring Framework architecture and setting up the key components of the Spring Application Development Environment, you will learn how to configure Spring Container and manage Spring beans using XML and Annotation. Next, you will delve into Spring MVC, which will help you build flexible and loosely coupled web applications. You'll also get to grips with testing applications for reliability. Moving on, this course will help you implement the microservice architecture in Spring Framework, Spring Boot, and Spring Cloud. Written to the latest specifications of Spring, this book will help you build modern, Internet-scale Java applications in no time. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Learning Spring Application Development by Ravi Kant Soni Spring MVC Beginner's Guide - Second Edition by Amuthan Ganeshan Spring Microservices by Rajesh RV Style and approach This is a step-by-step guide for building a complete application and developing scalable microservices using Spring Framework, Spring Boot, and a set of Spring Cloud components 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. For a large, complex system, the amount of test cases in a regression test suite can range from a few hundred to several thousands, which can take hours or even days to execute. Regression testing also requires considerable resources that are often not readily available. This precludes their use in an interactive setting, further contributing to an inefficient testing process. Cloud computing offers the use of virtualized hardware, effectively unlimited storage, and software services that can help reduce the execution time of large test suites in a cost-effective manner. The research presented by Tilley and Parveen

leverages the resources provided by cloud computing infrastructure to facilitate the concurrent execution of test cases. They introduce a decision framework called SMART-T to support migration of software testing to the cloud, a distributed environment called HadoopUnit for the concurrent execution of test cases in the cloud, and a series of case studies illustrating the use of the framework and the environment. Experimental results indicate a significant reduction in test execution time is possible when compared with a typical sequential environment. Software testing in the cloud is a subject of high interest for advanced practitioners and academic researchers alike. For advanced practitioners, the issue of cloud computing and its impact on the field of software testing is becoming increasingly relevant. For academic researchers, this is a subject that is replete with interesting challenges; there are so many open problems that graduate students will be busy for years to come. To further disseminate results in this field, the authors created a community of interest called "Software Testing in the Cloud" (www.STITC.org), and they encourage all readers to get involved in this exciting new area. Build a microservices architecture with Spring Boot, by evolving an application from a small monolith to an event-driven architecture composed of several services. This book follows an incremental approach to teach microservice structure, test-driven development, Eureka, Ribbon, Zuul, and end-to-end tests with Cucumber. Author Moises Macero follows a very pragmatic approach to explain the benefits of using this type of software architecture, instead of keeping you distracted with theoretical concepts. He covers some of the state-of-the-art techniques in computer programming, from a practical point of view. You'll focus on what's important, starting with the minimum viable product but keeping the flexibility to evolve it. What You'll Learn Build microservices with Spring Boot Use event-driven architecture and messaging with RabbitMQ Create RESTful services with Spring Master service discovery with Eureka and load

balancing with Ribbon Route requests with Zuul as your API gateway Write end-to-end tests for an event-driven architecture using Cucumber Carry out continuous integration and deployment Who This Book Is For Those with at least some prior experience with Java programming. Some prior exposure to Spring Boot recommended but not required. 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. The Most Complete, Practical, and Actionable Guide to Microservices Going beyond mere theory and marketing hype, Eberhard Wolff presents all the knowledge you need to capture the full benefits of this emerging paradigm. He illuminates microservice concepts, architectures, and scenarios from a technology-neutral standpoint, and demonstrates how to implement them with today's leading technologies such as Docker, Java, Spring Boot, the Netflix stack, and Spring Cloud. The author fully explains the benefits and tradeoffs associated with

microservices, and guides you through the entire project lifecycle: development, testing, deployment, operations, and more. You'll find best practices for architecting microservice-based systems, individual microservices, and nanoservices, each illuminated with pragmatic examples. The author supplements opinions based on his experience with concise essays from other experts, enriching your understanding and illuminating areas where experts disagree. Readers are challenged to experiment on their own the concepts explained in the book to gain hands-on experience. Discover what microservices are, and how they differ from other forms of modularization Modernize legacy applications and efficiently build new systems Drive more value from continuous delivery with microservices Learn how microservices differ from SOA Optimize the microservices project lifecycle Plan, visualize, manage, and evolve architecture Integrate and communicate among microservices Apply advanced architectural techniques, including CQRS and Event Sourcing Maximize resilience and stability Operate and monitor microservices in production Build a full implementation with Docker, Java, Spring Boot, the Netflix stack, and Spring Cloud Explore nanoservices with Amazon Lambda, OSGi, Java EE, Vert.x, Erlang, and Seneca Understand microservices' impact on teams, technical leaders, product owners, and stakeholders Managers will discover better ways to support microservices, and learn how adopting the method affects the entire organization. Developers will master the technical skills and concepts they need to be effective. Architects will gain a deep understanding of key issues in creating or migrating toward microservices, and exactly what it will take to transform their plans into reality. "This book presents a closer look at the partnership between service oriented architecture and cloud computing environments while analyzing potential solutions to challenges related to the migration of legacy applications"--Provided by publisher. This book will take developers through the first steps of using

Spring whilst discussing the relevant technologies that Spring can be integrated with, what to be aware of and how working with Spring makes them easier to use. It focuses on the most useful features of Spring, including persistence and transaction management as well as the complete Spring web tools portfolio, and also introduces 3-tier application design and how to test these designs. Ideal for J2EE beginners, this book provides a broad insight into Spring's enterprise Java-based technologies, whilst showing how to use Spring correctly. Learn how to build, test, secure, deploy, and efficiently consume services across distributed systems. Key Features - Explore the wealth of options provided by Spring Cloud for wiring service dependencies in microservice systems. - Create microservices utilizing Spring Cloud's Netflix OSS - Architect your cloud-native data using Spring Cloud. Book Description Developing, deploying, and operating cloud applications should be as easy as local applications. This should be the governing principle behind any cloud platform, library, or tool. Spring Cloud—an open-source library—makes it easy to develop JVM applications for the cloud. In this book, you will be introduced to Spring Cloud and will master its features from the application developer's point of view. This book begins by introducing you to microservices for Spring and the available feature set in Spring Cloud. You will learn to configure the Spring Cloud server and run the Eureka server to enable service registration and discovery. Then you will learn about techniques related to load balancing and circuit breaking and utilize all features of the Feign client. The book now delves into advanced topics where you will learn to implement distributed tracing solutions for Spring Cloud and build message-driven microservice architectures. Before running an application on Docker containers, you will master testing and securing techniques with Spring Cloud. What you will learn - Abstract Spring Cloud's feature set - Create microservices utilizing Spring Cloud's Netflix OSS - Create synchronous API microservices based on a message-

driven architecture. - Explore advanced topics such as distributed tracing, security, and contract testing. - Manage and deploy applications on the production environment Who this book is for This book appeals to developers keen to take advantage of Spring cloud, an open source library which helps developers quickly build distributed systems. Knowledge of Java and Spring Framework will be helpful, but no prior exposure to Spring Cloud is required. 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 like Hibernate, Groovy, MyBatis, and more. Spring now also works with Java EE and JPA 2 as well. Pro Spring 3 updates the bestselling Pro Spring with the latest that the Spring Framework has to offer: version 3.1. At 1000 pages, this is by far the most comprehensive Spring book available, thoroughly exploring the power of Spring. With Pro Spring 3, you'll learn Spring basics and core topics, and gain access to 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 various tiers or parts of an enterprise Java application like transactions, the web and presentations tiers, deployment, and much more. A full sample application allows you to apply many of the technologies and techniques covered in this book and see how they work together. After reading this definitive book, you'll be armed with the power of Spring to build complex Spring applications, top to bottom. The upcoming Java 9 module system will affect existing applications and offer new ways of creating modular and maintainable applications. With this hands-on book, Java developers will learn not only about the joys of modularity, but also about the patterns needed to create truly modular and reliable applications. Authors Sander Mak and Paul Bakker teach you the concepts behind the Java 9 module system, along with the new tools it offers. You'll also learn how to

modularize existing code and how to build new Java applications in a modular way. Understand Java 9 module system concepts Master the patterns and practices for building truly modular applications Migrate existing applications and libraries to Java 9 modules Use JDK 9 tools for modular development and migration 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 JDBC has simplified database access in Java applications, but a few nagging wrinkles remain—namely, persisting Java objects to relational databases. With this book, you'll learn how the Spring Framework makes that job incredibly easy with dependency injection, template classes, and object-relational-mapping (ORM). Through sample code, you'll discover how Spring streamlines the use of JDBC and ORM tools such as Hibernate, the Java Persistence API (JPA), and Java Data Objects (JDO). If you're a Java developer familiar with Spring (perhaps through O'Reilly's Just Spring tutorial) and want to advance your data access skills, this book shows you how. Learn how to use Spring's basic and advanced data access tools Work with Spring's JdbcTemplate class to separate non-critical code from business code Eliminate placeholder variables in your queries with the NamedParameterJdbcTemplate class Use Spring's template classes to perform batch executions Operate inserts on database tables without writing any SQL statements Learn about Spring's support for Hibernate as an object-relational-mapping tool Use JPA as a standards-based ORM—alone or with Spring support Move data from a relational to a non-relational database with JDO 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 Master the art of implementing scalable microservices in your production environment with ease About This Book Use domain-driven design to build microservices Use Spring Cloud to use Service Discovery and Registration Use Kafka, Avro and Spring Streams for implementing event based microservices Who This Book Is For This book is for Java developers who are familiar with the microservices architecture and now wants to take a deeper dive into effectively implementing microservices at an enterprise level. A reasonable knowledge level and understanding of core microservice elements and applications is expected. What You Will Learn Use domain-driven design to design and implement microservices Secure microservices using Spring Security Learn to develop REST service development Deploy and test microservices Troubleshoot and debug the issues faced during development Learning best practices and common principals about microservices In Detail Microservices are the next big thing in designing scalable, easy-to-maintain applications. It not only

makes app development easier, but also offers great flexibility to utilize various resources optimally. If you want to build an enterprise-ready implementation of the microservices architecture, then this is the book for you! Starting off by understanding the core concepts and framework, you will then focus on the high-level design of large software projects. You will gradually move on to setting up the development environment and configuring it before implementing continuous integration to deploy your microservice architecture. Using Spring security, you will secure microservices and test them effectively using REST Java clients and other tools like RxJava 2.0. We'll show you the best patterns, practices and common principals of microservice design and you'll learn to troubleshoot and debug the issues faced during development. We'll show you how to design and implement reactive microservices. Finally, we'll show you how to migrate a monolithic application to microservices based application. By the end of the book, you will know how to build smaller, lighter, and faster services that can be implemented easily in a production environment. Style and approach This book starts from the basics, including environment setup and provides easy-to-follow steps to implement the sample project using microservices. This ebook discusses 100 plus real problems and their solutions for microservices architecture based on Spring Boot, Spring Cloud, Cloud Native Applications. It covers core concepts of microservices architecture, various design patterns, interview questions & answers, security in microservices, testing strategies and best practices in distributed system design. Table of Contents: 1. Core concepts related Spring powered microservices architecture 2. Introduction to Spring Boot, Spring Cloud, Cloud Native Applications, Netflix OSS 3. Design Patterns in microservices architecture - API Gateway, Hystrix, etc. 4. 100 plus Interview Questions 5. Security - OAuth2 and JWT 6. Testing Strategies in microservices architecture 7. Best Practices and common pitfalls "Covers JDBC, Hibernate, JPA, and JDO"--Cover.

Pass the Pivotal Certified Professional exam using source code examples, study summaries, and mock exams. In this book, you'll find a descriptive overview of certification-related Spring modules and a single example application demonstrating the use of all required Spring modules. Also, it is suitable as an introductory primer for Spring newcomers. Furthermore, in Pivotal Certified Professional Spring Developer Exam: A Study Guide each chapter contains a brief study summary and question set, and the book's free downloadable source code package includes one mock exam (50 questions - like a real exam). After using this study guide, you will be ready to take and pass the Pivotal Certified Professional exam. When you become Pivotal Certified, you will have one of the most valuable credentials in Java. The demand for Spring skills is skyrocketing. Pivotal certification helps you advance your skills and your career, and get the maximum benefit from Spring. Passing the exam demonstrates your understanding of Spring and validates your familiarity with: container-basics, aspect oriented programming (AOP), data access and transactions, Spring Security, Spring Boot, microservices and the Spring model-view-controller (MVC). Good luck! What You'll Learn

- Understand the core principles of the popular Spring Framework
- Use dependency injection
- Work with aspects in Spring and do AOP (aspect oriented programming)
- Control transactional behavior and work with SQL and NoSQL (MongoDB) databases
- Create and secure web applications based on Spring MVC
- Get to know the format of exam and type of questions in it
- Create Spring microservices applications

Who This Book Is For Spring developers who have taken the Pivotal Core Spring class are eligible to take the Pivotal Certified Professional exam. Turbocharge your back-end Java RESTful API development with Spring Boot and Spring Data technologies. This course is intended for experienced Java developers who want to rapidly build microservices that connect with relational databases via the Java Persistence API (JPA). Here, Mary Ellen Bowman walks you through a step-

by-step process for building a microservice with an exposed RESTful API featuring HATEOAS, paging, and sorting. Learn about technologies such as Spring Boot, Spring Data JPA, and Spring Data REST, and see how they all come together into smart and elegant solutions. To wrap up, Mary Ellen guides developers in migrating a microservice to a MongoDB data source. What is this book about? The results of using J2EE in practice are often disappointing: applications are often slow, unduly complex, and take too long to develop. Rod Johnson believes that the problem lies not in J2EE itself, but in that it is often used badly. Many J2EE publications advocate approaches that, while fine in theory, often fail in reality, or deliver no real business value. Expert One-on-One: J2EE Design and Development aims to demystify J2EE development. Using a practical focus, it shows how to use J2EE technologies to reduce, rather than increase, complexity. Rod draws on his experience of designing successful high-volume J2EE applications and salvaging failing projects, as well as intimate knowledge of the J2EE specifications, to offer a real-world, how-to guide on how you too can make J2EE work in practice. It will help you to solve common problems with J2EE and avoid the expensive mistakes often made in J2EE projects. It will guide you through the complexity of the J2EE services and APIs to enable you to build the simplest possible solution, on time and on budget. Rod takes a practical, pragmatic approach, questioning J2EE orthodoxy where it has failed to deliver results in practice and instead suggesting effective, proven approaches. What does this book cover? In this book, you will learn When to use a distributed architecture When and how to use EJB How to develop an efficient data access strategy How to design a clean and maintainable web interface How to design J2EE applications for performance Who is this book for? This book would be of value to most enterprise developers. Although some of the discussion (for example, on performance and scalability) would be most relevant to architects and lead developers, the practical focus would make

it useful to anyone with some familiarity with J2EE. Because of the complete design-deployment coverage, a less advanced developer could work through the book along with a more introductory text, and successfully build and understand the sample application. This comprehensive coverage would also be useful to developers in smaller organisations, who might be called upon to fill several normally distinct roles. What is special about this book? Wondering what differentiates this book from others like it in the market? Take a look: It does not just discuss technology, but stress its practical application. The book is driven from the need to solve common tasks, rather than by the elements of J2EE. It discuss risks in J2EE development It takes the reader through the entire design, development and build process of a non-trivial application. This wouldn't be compressed into one or two chapters, like the Java Pet Store, but would be a realistic example comparable to the complexity of applications readers would need to build. At each point in the design, alternative choices would be discussed. This would be important both where there's a real problem with the obvious alternative, and where the obvious alternatives are perhaps equally valid. It emphasizes the use of OO design and design patterns in J2EE, without becoming a theoretical book What separates the traditional enterprise from the likes of Amazon, Netflix, and Etsy? Those companies have refined the art of cloud native development to maintain their competitive edge and stay well ahead of the competition. This practical guide shows Java/JVM developers how to build better software, faster, using Spring Boot, Spring Cloud, and Cloud Foundry. Many organizations have already waded into cloud computing, test-driven development, microservices, and continuous integration and delivery. Authors Josh Long and Kenny Bastani fully immerse you in the tools and methodologies that will help you transform your legacy application into one that is genuinely cloud native. In four sections, this book takes you through: The Basics: learn the motivations behind cloud native thinking; configure

and test a Spring Boot application; and move your legacy application to the cloud Web Services: build HTTP and RESTful services with Spring; route requests in your distributed system; and build edge services closer to the data Data Integration: manage your data with Spring Data, and integrate distributed services with Spring's support for event-driven, messaging-centric architectures Production: make your system observable; use service brokers to connect stateful services; and understand the big ideas behind continuous delivery Pass the Pivotal Certified Professional exam for Core Spring, based on the latest Spring Framework 5, using source code examples, study summaries, and mock exams. This book now includes WebFlux, reactive programming, and more found in Spring 5. You'll find a descriptive overview of certification-related Spring modules and a single example application demonstrating the use of all required Spring modules. Furthermore, in Pivotal Certified Professional Core Spring 5 Developer Exam, Second Edition, each chapter contains a brief study summary and question set, and the book's free downloadable source code package includes one mock exam (50 questions - like a real exam). After using this study guide, you will be ready to take and pass the Pivotal Certified Professional exam. When you become Pivotal Certified, you will have one of the most valuable credentials in Java. Pivotal certification helps you advance your skills and your career, and get the maximum benefit from Spring. Passing the exam demonstrates your understanding of Spring and validates your familiarity with: container-basics, aspect oriented programming (AOP), data access and transactions, Spring Security, Spring Boot, microservices, and Spring model-view-controller (MVC). Good luck! What You Will Learn Understand the core principles of Spring Framework 5 Use dependency injection Work with aspects in Spring and do AOP (aspect oriented programming) Control transactional behavior and work with SQL and NoSQL databases Create and secure web applications based on Spring MVC Get to know the

format of the exam and the type of questions in it. Create Spring microservices applications. Who This Book Is For: Spring developers who have taken the Pivotal Core Spring class are eligible to take the Pivotal Certified Professional exam. Over the past few years, the now-open source Adobe Flex framework has been adopted by the Java community as the preferred framework for Java rich Internet applications (RIAs) using Flash for the presentation layer. Flex helps Java developers to build and maintain expressive web/desktop applications that deploy consistently on all major browsers, desktops, and operating systems. Beginning Java and Flex describes new, simpler, and faster ways to develop enterprise RIAs. This book is not only for Java or Flex developers, but also for all web developers who want to increase their productivity and the quality of their development. The aim of the book is to teach the new frontier of web development using open source, agile, lightweight Java frameworks with Flex. Java lightweight framework programming helps Flex developers create dynamic-looking enterprise applications. Flex and Java are becoming very popular for both business and interactive applications. Master Java persistence using the industry-leading tools Spring Data and Hibernate. Java Persistence with Spring Data and Hibernate dives deep into persistence with the most popular available tools including Spring Data JPA, Spring Data JDBC, Spring Data REST, JPA, and Hibernate. Begin with a hands-on introduction to object-relational mapping (ORM), then dive into mapping strategies for linking up objects and your database. You'll learn about the different approach to transactions for both Hibernate and Spring Data, and even how to deliver Java persistence with non-relational databases. Finally, you'll explore testing strategies for persistent applications to keep your code clean and bug free. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. This book describes in contributions by scientists and practitioners the development of scientific concepts,

technologies, engineering techniques and tools for a service-based society. The focus is on microservices, i.e. cohesive, independent processes deployed in isolation and equipped with dedicated memory persistence tools, which interact via messages. The book is structured in six parts. Part 1 “Opening” analyzes the new (and old) challenges including service design and specification, data integrity, and consistency management and provides the introductory information needed to successfully digest the remaining parts. Part 2 “Migration” discusses the issue of migration from monoliths to microservices and their loosely coupled architecture. Part 3 “Modeling” introduces a catalog and a taxonomy of the most common microservices anti-patterns and identifies common problems. It also explains the concept of RESTful conversations and presents insights from studying and developing two further modeling approaches. Next, Part 4 is dedicated to various aspects of “Development and Deployment”. Part 5 then covers “Applications” of microservices, presenting case studies from Industry 4.0, Netflix, and customized SaaS examples. Eventually, Part 6 focuses on “Education” and reports on experiences made in special programs, both at academic level as a master program course and for practitioners in an industrial training. As only a joint effort between academia and industry can lead to the release of modern paradigm-based programming languages, and subsequently to the deployment of robust and scalable software systems, the book mainly targets researchers in academia and industry who develop tools and applications for microservices. Master the art of implementing scalable and reactive microservices in your production environment with Java 11 Key Features Use domain-driven designs to build microservices Explore various microservices design patterns such as service discovery, registration, and API Gateway Use Kafka, Avro, and Spring Streams to implement event-based microservices Book Description Microservices are key to designing scalable, easy-to-maintain applications. This latest

edition of Mastering Microservices with Java, works on Java 11. It covers a wide range of exciting new developments in the world of microservices, including microservices patterns, interprocess communication with gRPC, and service orchestration. This book will help you understand how to implement microservice-based systems from scratch. You'll start off by understanding the core concepts and framework, before focusing on the high-level design of large software projects. You'll then use Spring Security to secure microservices and test them effectively using REST Java clients and other tools. You will also gain experience of using the Netflix OSS suite, comprising the API Gateway, service discovery and registration, and Circuit Breaker. Additionally, you'll be introduced to the best patterns, practices, and common principles of microservice design that will help you to understand how to troubleshoot and debug the issues faced during development. By the end of this book, you'll have learned how to build smaller, lighter, and faster services that can be implemented easily in a production environment. What you will learn

- Use domain-driven designs to develop and implement microservices
- Understand how to implement microservices using Spring Boot
- Explore service orchestration and distributed transactions using the Sagas
- Discover interprocess communication using REpresentational State Transfer (REST) and events
- Gain knowledge of how to implement and design reactive microservices
- Deploy and test various microservices

Who this book is for

This book is designed for Java developers who are familiar with microservices architecture and now want to effectively implement microservices at an enterprise level. Basic knowledge and understanding of core microservice elements and applications is necessary. The Spring Framework is a major open source application development framework that makes Java/J2EE(TM) development easier and more productive. This book shows you not only what Spring can do but why, explaining its functionality and motivation to help you use all parts of the framework to develop successful

applications. You will be guided through all the Spring features and see how they form a coherent whole. In turn, this will help you understand the rationale for Spring's approach, when to use Spring, and how to follow best practices. All this is illustrated with a complete sample application. When you finish the book, you will be well equipped to use Spring effectively in everything from simple Web applications to complex enterprise applications. What you will learn from this book * The core Inversion of Control container and the concept of Dependency Injection * Spring's Aspect Oriented Programming (AOP) framework and why AOP is important in J2EE development * How to use Spring's programmatic and declarative transaction management services effectively * Ways to access data using Spring's JDBC functionality, iBATIS SQL Maps, Hibernate, and other O/R mapping frameworks * Spring services for accessing and implementing EJBs * Spring's remoting framework Who this book is for This book is for Java/J2EE architects and developers who want to gain a deeper knowledge of the Spring Framework and use it effectively. Wrox Professional guides are planned and written by working programmers to meet the real-world needs of programmers, developers, and IT professionals. Focused and relevant, they address the issues technology professionals face every day. They provide examples, practical solutions, and expert education in new technologies, all designed to help programmers do a better job. Develop diverse real-life projects including most aspects of Spring Boot Key Features Run production-grade based applications using the Spring WebFlux framework Learn to develop high performance, asynchronous applications with Spring Boot Create robust microservice-based applications with Kotlin using Spring Boot Book Description Spring is one of the best tools available on the market for developing web, enterprise, and cloud-ready software. The goal of Spring Boot is to provide a set of tools for quickly building Spring applications that are easy to configure, and that make it easy to create and run production-grade

Spring-based applications. Spring Boot 2.0 Projects will get you acquainted with important features of the latest version of this application-building tool and will cover basic, as well as advanced topics. The book starts off by teaching you how to create a web application using Spring Boot, followed by creating a Spring Boot-based simple blog management system that uses Elasticsearch as the data store. As you make your way through the chapters, you'll build a RESTful web services application using Kotlin and the Spring WebFlux framework. Spring WebFlux is a new framework that helps in creating a reactive application in a functional way. Toward the end of the book, you will build a taxi-hailing API with reactive microservices using Spring Boot and a Twitter clone with a Spring Boot backend. Finally, you'll learn how to build an asynchronous email formatter. What you will learn

Learn the fundamental features of Spring Boot 2.0
Customize Spring Boot 2.0 applications
Build a basic web application
Use Redis to build a taxi-hailing API
Create a simple blog management system and a Twitter clone
Develop a reactive RESTful web service with Kotlin using Spring Boot

Who this book is for
This book is for competent Spring developers who wish to understand how to develop complex yet scalable applications with Spring Boot. You must have a good knowledge of Java programming and be familiar with the basics of Spring. Design, build, and deploy performant and maintainable web applications using Spring, Spring Boot, and Angular

Key Features
Find solutions to common problems faced while developing applications with Angular and Spring Boot
Explore tips, tricks, and best practices to overcome challenges related to source code
Build applications faster and more efficiently using the Spring Framework and the Spring Boot extension

Book Description
Angular makes building applications with the web easy and Spring Boot helps get an application up and running using just a few lines of code and minimal configuration. This book provides insights into building full-stack apps using Angular and Spring Boot effectively to reduce overall development

time and increase efficiency. You'll start by setting up your CI/CD pipeline and then build your web application's backend guided by best practices. You'll then see how Spring Boot allows you to build applications faster and more efficiently by letting the Spring Framework and Spring Boot extension do the heavy lifting. The book demonstrates how to use Spring Data JPA and add its dependencies along with Postgres dependencies in the project to save or persist a user's data in a database for future use. As you advance, you'll see how to write tests and test a service using Mockito. Finally, you'll create a CI workflow or pipeline for a Spring Boot and Angular application to enable operations to deliver quality applications faster. By the end of this Spring Boot and Angular book, you'll be able to build a full-stack web application and deploy it through continuous integration and continuous deployment. What you will learn

- Explore how to architect Angular for enterprise-level app development
- Create a Spring Boot project using Spring Initializr
- Build RESTful APIs for enterprise-level app development
- Understand how using Redis for caching can improve your application's performance
- Discover CORS and how to add CORS policy in the Spring Boot application for better security
- Write tests to maintain a healthy Java Spring Boot application
- Implement testing and modern deployments of frontend and backend applications

Who this book is for

The book is for busy Java web developers and TypeScript developers with little experience developing Angular and Spring Boot apps who want to learn best practices for building full-stack web apps. Basic knowledge of HTML, CSS, and JavaScript or the Java programming language is necessary. Spring and OSGi's features are a natural fit; they are orthogonal to each other. The Open Services Gateway initiative (OSGi) is about packaging, deployment, and versioning issues, while Spring is about providing the necessary foundation to wire up Java classes in their most basic form using dependency injection and aspect orientation to fulfill an application's purpose. Pro Spring

Dynamic Modules for OSGi™ Service Platforms by Daniel Rubio is the first book to cover OSGi as practically implemented by the world's most popular, agile, and open-source enterprise Java framework, Spring. Covers the ease at which OSGi is used with the Spring Framework in development, packaging, versioning, and deployment. Enterprises are trusting Spring more and more, and this book leverages OSGi in a way that can “complete” the use of Spring in the enterprise, as OSGi is already being trusted and adopted by IBM, BEA, and others. The text discusses how Spring OSGi makes your Spring applications trusted SOA applications. Build Java-based microservices architecture using the Spring Boot 3 framework by evolving an application from a small monolith to an event-driven architecture composed of several services. This revised book follows an incremental approach in teaching the structure of microservices, test-driven development, Eureka, Ribbon, Zuul, and end-to-end tests with Cucumber. This updated book now covers what's been added to the new Spring Boot 3 release, including support for the latest Java SE LTS; changes to the Stream Editor UI; Maven preemptive authentication; building Docker images using cloud-native build packs; building layered jars for optimized Docker images; E2E traceability for configuration properties; many dependency upgrades; support for Spring Data Neumann; and more. Author Moises Macero uses a pragmatic approach to explain the benefits of using this type of software architecture, instead of keeping you distracted with theoretical concepts. He covers some of the state-of-the-art techniques in computer programming, from a practical point of view. You'll focus on what's important, starting with the minimum viable product but keeping the flexibility to evolve it. What You Will Learn Build microservices with Spring Boot 3 Use event-driven architecture and messaging with RabbitMQ Master service discovery with Eureka and load balancing with Ribbon Route requests with Zuul as your API gateway Write end-to-end tests for an event-driven

architecture using Cucumber Carry out continuous integration and deployment Who This Book Is For Those with at least some prior experience with Java programming. Some prior exposure to Spring Boot recommended but not required. 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. When you use Hibernate in your projects, you quickly recognize that you need to do more than just add @Entity annotations to your domain model classes. Real-world applications often require advanced mappings, complex queries, custom data types and caching.

Hibernate can do all of that. You just have to know which annotations and APIs you need to use. Hibernate Tips - More than 70 solutions to common Hibernate problems shows you how to efficiently implement your persistence layer with Hibernate's basic and advanced features. Each Hibernate Tip consists of one or more code samples and an easy to follow step-by-step explanation. You can also download an example project with executable test cases for each Hibernate Tip. Throughout this book, you will get more than 70 ready-to-use solutions that show you how to:

- Define standard mappings for basic attributes and entity associations.
- Implement your own attribute mappings and support custom data types.
- Use Hibernate's Java 8 support and other proprietary features.
- Read data from the database with JPQL, Criteria API, and native SQL queries.
- Call stored procedures and database functions.

This book is for developers who are already working with Hibernate and who are looking for solutions for their current development tasks. It's not a book for beginners who are looking for extensive descriptions of Hibernate's general concepts. The tips are designed as self-contained recipes which provide a specific solution and can be accessed when needed. Most of them contain links to related tips which you can follow if you want to dive deeper into a topic or need a slightly different solution. There is no need to read the tips in a specific order. Feel free to read the book from cover to cover or to just pick the tips that help you in your current project. The upcoming Java 9 module system will affect existing applications and offer new ways of creating modular and maintainable applications. With this hands-on book, Java developers will learn not only about the joys of modularity, but also about the patterns needed to create truly modular and reliable applications. Authors Sander Mak and Paul Bakker teach you the concepts behind the Java 9 module system, along with the new tools it offers. You'll also learn how to modularize existing code and how to build new Java applications in a modular way. Understand Java 9 module system concepts Master

the patterns and practices for building truly modular applications Migrate existing applications and libraries to Java 9 modules Use JDK 9 tools for modular development and migration Spring Web Flow is an exciting open-source framework for developing Java web applications. The framework improves productivity by addressing three major pain-points facing web application developers: user interface navigation control, state management, and modularity. The Definitive Guide to Spring Web Flow covers Spring Web Flow in detail by explaining its motivation and feature set, as well as providing practical guidance for using the framework to develop web applications successfully in a number of environments. 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 Learn how to secure your Java applications from hackers

using Spring Security 4.2 About This Book Architect solutions that leverage the full power of Spring Security while remaining loosely coupled. Implement various scenarios such as supporting existing user stores, user sign up, authentication, and supporting AJAX requests, Integrate with popular Microservice and Cloud services such as Zookeeper, Eureka, and Consul, along with advanced techniques, including OAuth, JSON Web Token's (JWT), Hashing, and encryption algorithms Who This Book Is For This book is intended for Java Web and/or RESTful webservice developers and assumes a basic understanding of creating Java 8, Java Web and/or RESTful webservice applications, XML, and the Spring Framework. You are not expected to have any previous experience with Spring Security. What You Will Learn Understand common security vulnerabilities and how to resolve them Learn to perform initial penetration testing to uncover common security vulnerabilities Implement authentication and authorization Learn to utilize existing corporate infrastructure such as LDAP, Active Directory, Kerberos, CAS, OpenID, and OAuth Integrate with popular frameworks such as Spring, Spring-Boot, Spring-Data, JSF, Vaadin, jQuery, and AngularJS. Gain deep understanding of the security challenges with RESTful webservices and microservice architectures Integrate Spring with other security infrastructure components like LDAP, Apache Directory server and SAML In Detail Knowing that experienced hackers are itching to test your skills makes security one of the most difficult and high-pressured concerns of creating an application. The complexity of properly securing an application is compounded when you must also integrate this factor with existing code, new technologies, and other frameworks. Use this book to easily secure your Java application with the tried and trusted Spring Security framework, a powerful and highly customizable authentication and access-control framework. The book starts by integrating a variety of authentication mechanisms. It then demonstrates how to properly restrict access to your application. It also covers

tips on integrating with some of the more popular web frameworks. An example of how Spring Security defends against session fixation, moves into concurrency control, and how you can utilize session management for administrative functions is also included. It concludes with advanced security scenarios for RESTful webservices and microservices, detailing the issues surrounding stateless authentication, and demonstrates a concise, step-by-step approach to solving those issues. And, by the end of the book, readers can rest assured that integrating version 4.2 of Spring Security will be a seamless endeavor from start to finish. Style and approach This practical step-by-step tutorial has plenty of example code coupled with the necessary screenshots and clear narration so that grasping content is made easier and quicker.