

# Bookmark File Getting Started With Hazelcast Author Mat Johns Sep 2013 Free Download Pdf

Java Coding Problems Sep 29 2020 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.

Spring Dynamic Modules in Action Jan 14 2022 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.

The Semantic Web: Semantics and Big Data Apr 05 2021

This book constitutes the refereed proceedings of the 10th Extended Semantic Web Conference, ESWC 2013, held in Montpellier, France, in May 2013. The 42 revised full papers presented together with three invited talks were carefully reviewed and selected from 162 submissions. They are organized in tracks on ontologies; linked open data; semantic data management; mobile Web, sensors and semantic streams; reasoning; natural language processing and information retrieval; machine learning; social Web and Web science; cognition and semantic Web; and in-use and industrial tracks. The book also includes 17 PhD papers presented at the PhD Symposium.

Head First Learn to Code Nov 24 2022 What will you learn from this book? It's no secret the world around you is becoming more connected, more configurable, more programmable, more computational. You can remain a passive participant, or you can learn to code. With Head First Learn to Code you'll learn how to think computationally and how to write code to make your computer, mobile device, or anything with a CPU do things for you. Using the Python programming language, you'll learn step by step the core concepts of programming as well as many fundamental topics from computer science, such as data structures, storage, abstraction, recursion, and modularity. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Learn to Code uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

Java" Puzzlers: Traps, Pitfalls, And Corner Cases  
21 2019

Dec

Spring Boot Persistence Best Practices May 18 2022 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.

Spring Boot in Action Jun 07 2021 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

Create a complete continuous delivery process using modern DevOps tools such as Docker, Jenkins, Kubernetes, Ansible, Terraform, and many more

**Key Features**

- Build reliable and secure applications using Docker containers
- Create a highly available environment to scale Jenkins and your services using Kubernetes
- Automate your release process end-to-end

**Book Description**

This updated third edition of *Continuous Delivery with Docker and Jenkins* will explain the advantages of combining Jenkins and Docker to improve the continuous integration and delivery process of app development. You'll start by setting up a Docker server and configuring Jenkins on it. Next, you'll discover steps for building applications and microservices on Dockerfiles and integrating them with Jenkins using continuous delivery processes such as continuous integration, automated acceptance testing, configuration management, and Infrastructure as Code. Moving ahead, you'll learn how to ensure quick application deployment with Docker containers, along with scaling Jenkins using Kubernetes. Later, you'll explore how to deploy applications using Docker images and test them with Jenkins. Toward the concluding chapters, the book will focus on missing parts of the CD pipeline, such as the environments and infrastructure, application versioning, and non-functional testing. By the end of this continuous integration and continuous delivery book, you'll have gained the skills you need to enhance the DevOps workflow by integrating the functionalities of Docker and Jenkins.

**What you will learn**

- Grasp Docker fundamentals and dockerize applications for the CD process
- Understand how to use Jenkins on-premises and in the cloud
- Scale a pool of Docker servers using Kubernetes
- Write acceptance tests using Cucumber
- Run tests in the Docker ecosystem using Jenkins
- Provision your servers and infrastructure using Ansible and Terraform
- Publish a built Docker image to a Docker

registry • Deploy cycles of Jenkins pipelines using community best practices Who this book is for The book is for DevOps engineers, system administrators, Docker professionals, or anyone who wants to explore the power of working with Docker and Jenkins together. No prior knowledge of DevOps is required to get started.

Learning Spark Apr 24 2020 Data is bigger, arrives faster, and comes in a variety of formats—and it all needs to be processed at scale for analytics or machine learning. But how can you process such varied workloads efficiently? Enter Apache Spark. Updated to include Spark 3.0, this second edition shows data engineers and data scientists why structure and unification in Spark matters. Specifically, this book explains how to perform simple and complex data analytics and employ machine learning algorithms. Through step-by-step walk-throughs, code snippets, and notebooks, you'll be able to: Learn Python, SQL, Scala, or Java high-level Structured APIs Understand Spark operations and SQL Engine Inspect, tune, and debug Spark operations with Spark configurations and Spark UI Connect to data sources: JSON, Parquet, CSV, Avro, ORC, Hive, S3, or Kafka Perform analytics on batch and streaming data using Structured Streaming Build reliable data pipelines with open source Delta Lake and Spark Develop machine learning pipelines with MLlib and productionize models using MLflow

Metadata and Semantic Research Dec 13 2021 This book constitutes the thoroughly refereed proceedings of the 14th International Conference on Metadata and Semantic Research, MTSR 2020, held in Madrid, Spain, in December 2020. Due to the COVID-19 pandemic the conference was held online. The 24 full and 13 short papers presented were carefully reviewed and selected from 82 submissions. The papers are organized in the following tracks: metadata, linked data, semantics and ontologies; metadata and semantics for digital libraries,

information retrieval, big, linked, social and open data; metadata and semantics for agriculture, food, and environment, AgroSEM 2020; metadata and semantics for open repositories, research information systems and data infrastructures; digital humanities and digital curation, DHC 2020; metadata and semantics for cultural collections and applications; european and national projects; knowledge IT artifacts (KITA) in professional communities and aggregations, KITA 2020.

Learning Karaf Cellar \_\_\_\_\_ Oct 11 2021 This book is a tutorial written with a step-by-step approach to help you implement an optimum clustering solution in Apache Karaf Cellar quickly and efficiently. If you are new to Karaf and want to install and manage multiple Karaf instances by farming or clustering, then this book is for you. If you are a Java developer or a system administrator with basic knowledge of Karaf, you can use this book as a guide. Some background knowledge of OSGi and/or Karaf would be preferred but is not mandatory.

Hands-On Reactive Programming in Spring 5 \_\_\_\_\_ Jan 26 2023 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.

**Real-Time Analytics**      Feb 03 2021

Construct a robust end-to-end solution for analyzing and visualizing streaming data

Real-time analytics is the hottest topic in data analytics today. In *Real-Time Analytics: Techniques to Analyze and Visualize Streaming Data*, expert Byron Ellis teaches data analysts technologies to build an effective real-time analytics platform. This platform can then be used to make sense of the constantly changing data that is beginning to outpace traditional batch-based analysis platforms. The author is among a very few leading experts in the field. He has a prestigious background in research, development, analytics, real-time visualization, and Big Data streaming and is uniquely qualified to help you explore this revolutionary field.

Moving from a description of the overall analytic architecture of real-time analytics to using specific tools to obtain targeted results, Real-Time Analytics leverages open source and modern commercial tools to construct robust, efficient systems that can provide real-time analysis in a cost-effective manner. The book includes: A deep discussion of streaming data systems and architectures Instructions for analyzing, storing, and delivering streaming data Tips on aggregating data and working with sets Information on data warehousing options and techniques Real-Time Analytics includes in-depth case studies for website analytics, Big Data, visualizing streaming and mobile data, and mining and visualizing operational data flows. The book's "recipe" layout lets readers quickly learn and implement different techniques. All of the code examples presented in the book, along with their related data sets, are available on the companion website.

Vert.x in Action      Oct 31 2020 Vert.x in Action teaches you how to build production-quality reactive applications in Java. This book covers core Vert.x concepts, as well as the fundamentals of asynchronous and reactive programming. Learn to develop microservices by using Vert.x tools for database communications, persistent messaging, and test app resiliency. The patterns and techniques included here transfer to reactive technologies and frameworks beyond Vert.x. Summary As enterprise applications become larger and more distributed, new architectural approaches like reactive designs, microservices, and event streams are required knowledge. The Vert.x framework provides a mature, rock-solid toolkit for building reactive applications using Java, Kotlin, or Scala. Vert.x in Action teaches you to build responsive, resilient, and scalable JVM applications with Vert.x using well-established reactive design patterns. Purchase of the print book includes a free eBook in PDF, Kindle, and

ePub formats from Manning Publications. About the technology Vert.x is a collection of libraries for the Java virtual machine that simplify event-based and asynchronous programming. Vert.x applications handle tedious tasks like asynchronous communication, concurrent work, message and data persistence, plus they're easy to scale, modify, and maintain. Backed by the Eclipse Foundation and used by Red Hat and others, this toolkit supports code in a variety of languages.

About the book Vert.x in Action teaches you how to build production-quality reactive applications in Java. This book covers core Vert.x concepts, as well as the fundamentals of asynchronous and reactive programming. Learn to develop microservices by using Vert.x tools for database communications, persistent messaging, and test app resiliency. The patterns and techniques included here transfer to reactive technologies and frameworks beyond Vert.x.

What's inside

- Building reactive services
- Responding to external service failures
- Horizontal scaling
- Vert.x toolkit architecture and Vert.x testing
- Deploying with Docker and Kubernetes

About the reader

For intermediate Java web developers.

About the author

Julien Ponge is a principal software engineer at Red Hat, working on the Eclipse Vert.x project.

Table of Contents

PART 1 - FUNDAMENTALS OF ASYNCHRONOUS PROGRAMMING WITH VERT.X

- 1 Vert.x, asynchronous programming, and reactive systems
- 2 Verticles: The basic processing units of Vert.x
- 3 Event bus: The backbone of a Vert.x application
- 4 Asynchronous data and event streams
- 5 Beyond callbacks
- 6 Beyond the event bus

PART 2 - DEVELOPING REACTIVE SERVICES WITH VERT.X

- 7 Designing a reactive application
- 8 The web stack
- 9 Messaging and event streaming with Vert.x
- 10 Persistent state management with databases
- 11 End-to-end real-time reactive event processing
- 12 Toward responsiveness with load and chaos testing
- 13 Final notes: Container-native Vert.x

Performance Evaluation and Benchmarking for the Analytics Era Feb 27 2023 This book constitutes the thoroughly refereed post-conference proceedings of the 8th TPC Technology Conference, on Performance Evaluation and Benchmarking, TPCTC 2017, held in conjunction with the 43rd International Conference on Very Large Databases (VLDB 2017) in August/September 2017. The 12 papers presented were carefully reviewed and selected from numerous submissions. The TPC remains committed to developing new benchmark standards to keep pace with these rapid changes in technology.

GitLab Cookbook Jul 28 2020 This book is aimed at developers and devops that have a GitLab server running, and want to be sure they use it to its full potential. This book will also be useful for people looking for a great Git platform, and learn how to set it up successfully. Some system administrating experience on a UNIX-based system would be useful, but is not required.

Getting Started with Hazelcast Apr 29 2023 Written as a step-by-step guide, Getting Started with Hazelcast will teach you all you need to know to make your application data scalable. This book is a great introduction for Java developers, software architects, or developers looking to enable scalable and agile data within their applications. You should have programming knowledge of Java and a general familiarity with concepts like data caching and clustering.

Introduction to YAML Feb 21 2020 Anyone looking to create structured data in a human-readable data format should learn YAML. This book is aimed at developers of every level, from beginner to advanced, who want to get up to date with YAML. This book is for Software Engineer, Full Stack Web Developer, DevOps Engineer, Software Architects, Managers, and Hobbist, who are wondering what YAML is? This book will introduce you to YAML markup language and covers in detail its syntax. It will also cover the basic concepts behind this markup

language and explain its main features and show the capabilities of YAML.

Getting Started with Hazelcast      Mar 28 2023 Written as a step-by-step guide, Getting Started with Hazelcast will teach you all you need to know to make your application data scalable. This book is a great introduction for Java developers, software architects, or developers looking to enable scalable and agile data within their applications. You should have programming knowledge of Java and a general familiarity with concepts like data caching and clustering.

Spring Security      Jun 26 2020 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.

High Performance in-memory computing with Apache Ignite  
Aug 21 2022 This book covers a verity of topics, including in-memory data grid, highly available service grid, streaming (event processing for IoT and fast data) and in-memory computing use cases from high-performance computing to get performance gains. The book will be

particularly useful for those, who have the following use cases: 1) You have a high volume of ACID transactions in your system. 2) You have database bottleneck in your application and want to solve the problem. 3) You want to develop and deploy Microservices in a distributed fashion. 4) You have an existing Hadoop ecosystem (OLAP) and want to improve the performance of map/reduce jobs without making any changes in your existing map/reduce jobs. 5) You want to share Spark RDD directly in-memory (without storing the state into the disk) 7) You are planning to process continuous never-ending streams and complex events of data. 8) You want to use distributed computations in parallel fashion to gain high performance.

What is DevOps? Jul 20 2022 Have we entered the age of NoOps infrastructures? Hardly. Old-style system administrators may be disappearing in the face of automation and cloud computing, but operations have become more significant than ever. As this O'Reilly Radar Report explains, we're moving into a more complex arrangement known as "DevOps." Mike Loukides, O'Reilly's VP of Content Strategy, provides an incisive look into this new world of operations, where IT specialists are becoming part of the development team. In an environment with thousands of servers, these specialists now write the code that maintains the infrastructure. Even applications that run in the cloud have to be resilient and fault tolerant, need to be monitored, and must adjust to huge swings in load. That was underscored by Amazon's EBS outage last year. From the discussions at O'Reilly's Velocity Conference, it's evident that many operations specialists are quickly adapting to the DevOps reality. But as a whole, the industry has just scratched the surface. This report tells you why.

JMeter Cookbook Aug 09 2021 This book is great for you if you are a developer, quality assurance engineer, tester, or test manager who is looking to get a firmer

grasp of elementary, deep, and advanced testing concepts using Apache JMeter. It's assumed you have access to a computer and an Internet connection. No prior testing or programming experience is required, but would be helpful.

Istio in Action      May 26 2020 Solve difficult service-to-service communication challenges around security, observability, routing, and resilience with an Istio-based service mesh. Istio allows you to define these traffic policies as configuration and enforce them consistently without needing any service-code changes. In Istio in Action you will learn: Why and when to use a service mesh Envoy's role in Istio's service mesh Allowing "North-South" traffic into a mesh Fine-grained traffic routing Make your services robust to network failures Gain observability over your system with telemetry "golden signals" How Istio makes your services secure by default Integrate cloud-native applications with legacy workloads such as in VMs Reduce the operational complexity of your microservices with an Istio-powered service mesh! Istio in Action shows you how to implement this powerful new architecture and move your application-networking concerns to a dedicated infrastructure layer. Non-functional concerns stay separate from your application, so your code is easier to understand, maintain, and adapt regardless of programming language. In this practical guide, you'll go hands-on with the full-featured Istio service mesh to manage microservices communication. Helpful diagrams, example configuration, and examples make it easy to understand how to control routing, secure container applications, and monitor network traffic. About the technology Offload complex microservice communication layer challenges to Istio! The industry-standard Istio service mesh radically simplifies security, routing, observability, and other service-to-service communication challenges. With Istio, you use a



straightforward declarative configuration style to establish application-level network policies. By separating communication from business logic, your services are easier to write, maintain, and modify. About the book Istio in Action teaches you how to implement an Istio-based service mesh that can handle complex routing scenarios, traffic encryption, authorization, and other common network-related tasks. You'll start by defining a basic service mesh and exploring the data plane with Istio's service proxy, Envoy. Then, you'll dive into core topics like traffic routing and visualization and service-to-service authentication, as you expand your service mesh to workloads on multiple clusters and legacy VMs. What's inside Comprehensive coverage of Istio resources Practical examples to showcase service mesh capabilities Implementation of multi-cluster service meshes How to extend Istio with WebAssembly Traffic routing and observability VM integration into the mesh About the reader For developers, architects, and operations engineers. About the author Christian Posta is a well-known architect, speaker, and contributor. Rinor Maluku is an engineer at Solo.io working on application networking solutions. Table of Contents PART 1 UNDERSTANDING ISTIO 1 Introducing the Istio service mesh 2 First steps with Istio 3 Istio's data plane: The Envoy proxy PART 2 SECURING, OBSERVING, AND CONTROLLING YOUR SERVICE'S NETWORK TRAFFIC 4 Istio gateways: Getting traffic into a cluster 5 Traffic control: Fine-grained traffic routing 6 Resilience: Solving application networking challenges 7 Observability: Understanding the behavior of your services 8 Observability: Visualizing network behavior with Grafana, Jaeger, and Kiali 9 Securing microservice communication PART 3 ISTIO DAY-2 OPERATIONS 10 Troubleshooting the data plane 11 Performance-tuning the control plane PART 4 ISTIO IN YOUR ORGANIZATION 12 Scaling Istio in your organization

13 Incorporating virtual machine workloads into the mesh

14 Extending Istio on the request path

[Head First JavaScript Programming](#) Oct 23 2022 What will you learn from this book? This brain-friendly guide teaches you everything from JavaScript language fundamentals to advanced topics, including objects, functions, and the browser's document object model. You won't just be reading—you'll be playing games, solving puzzles, pondering mysteries, and interacting with JavaScript in ways you never imagined. And you'll write real code, lots of it, so you can start building your own web applications. Prepare to open your mind as you learn (and nail) key topics including: The inner details of JavaScript How JavaScript works with the browser The secrets of JavaScript types Using arrays The power of functions How to work with objects Making use of prototypes Understanding closures Writing and testing applications What's so special about this book? We think your time is too valuable to waste struggling with new concepts. Using the latest research in cognitive science and learning theory to craft a multi-sensory learning experience, *Head First JavaScript Programming* uses a visually rich format designed for the way your brain works, not a text-heavy approach that puts you to sleep. This book replaces *Head First JavaScript*, which is now out of print.

[Get Your Hands Dirty on Clean Architecture](#) Sep 22 2022 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.

Beginning Spring      Apr 17 2022 Get up to speed quickly

with this comprehensive guide to Spring Beginning Spring is the complete beginner's guide to Java's most popular framework. Written with an eye toward real-world enterprises, the book covers all aspects of application development within the Spring Framework. Extensive samples within each chapter allow developers to get up to speed quickly by providing concrete references for experimentation, building a skillset that drives successful application development by exploiting the full capabilities of Java's latest advances. Spring provides the exact toolset required to build an enterprise application, and has become the standard within the field. This book covers Spring 4.0, which contains support for Java 8 and Java EE 7. Readers begin with the basics of the framework, then go on to master the most commonly used tools and fundamental concepts inherent in any Spring project. The book emphasizes practicality and real-world application by addressing needs such as meeting customer demand and boosting productivity, and by providing actionable information that helps developers get the most out of the framework. Topics include: Dependency Injection and Inversion of Control Unit testing Spring enabled Web Applications Data Access using Spring JDBC and ORM support along with Transaction Management Building Web Applications and RESTful Web Services with Spring MVC Securing Web Applications using Spring Security Spring Expression Language with its Extensive Features Aspect Oriented Programming Facilities Provided by Spring AOP Caching with 3rd Party Cache Providers' Support The Best of the Breed: Spring 4.0 The information is organized and structured an ideal way for students and corporate training programs, and explanations about inner workings of the framework make it a handy desk reference even for experienced developers. For novices, Beginning Spring is invaluable as a comprehensive guide to the real-world functionality of Spring.

## Cloud Native Microservices with Spring and Kubernetes

---

Mar 16 2022 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

Streaming Systems Jan 22 2020 Streaming data is a big deal in big data these days. As more and more businesses seek to tame the massive unbounded data sets that pervade our world, streaming systems have finally reached a level of maturity sufficient for mainstream adoption. With this practical guide, data engineers, data scientists, and developers will learn how to work with streaming data in a conceptual and platform-agnostic way. Expanded from Tyler Akidau's popular blog posts "Streaming 101" and "Streaming 102", this book takes you from an introductory level to a nuanced understanding of the what, where, when, and how of processing real-time data streams. You'll also dive deep into watermarks and exactly-once processing with co-authors Slava Chernyak and Reuven Lax. You'll explore:

- How streaming and batch data processing patterns compare
- The core principles and concepts behind robust out-of-order data processing
- How watermarks track progress and completeness in infinite datasets
- How exactly-once data processing techniques ensure correctness
- How the concepts of streams and tables form the foundations of both batch and streaming data processing
- The practical motivations behind a powerful persistent state

mechanism, driven by a real-world example How time-varying relations provide a link between stream processing and the world of SQL and relational algebra

The Apache Ignite Book      Dec 25 2022 Apache Ignite is one of the most widely used open source memory-centric distributed, caching, and processing platform. This allows the users to use the platform as an in-memory computing framework or a full functional persistence data stores with SQL and ACID transaction support. On the other hand, Apache Ignite can be used for accelerating existing Relational and NoSQL databases, processing events & streaming data or developing Microservices in fault-tolerant fashion. This book addressed anyone interested in learning in-memory computing and distributed database. This book intends to provide someone with little to no experience of Apache Ignite with an opportunity to learn how to use this platform effectively from scratch taking a practical hands-on approach to learning. Please see the table of contents for more details.

American Song: T-Z and indexes      May 06 2021 American song contains data on over 4,800 American musicals spread over two volumes. All Broadway, off-Broadway and off-off-Broadway productions are included, together with all resident theatre productions of shows by major artists, shows that closed out of town prior to Broadway, shows that toured, selected nightclub shows, straight plays with original songs, vaudeville and burlesque shows.

Integration Testing from the Trenches      Feb 15 2022 Software development is a complex craft requiring many steps in its road to completion. In particular, achieving the best context-dependent ratio between cost and quality can only be achieved through an adequate testing strategy. "Integration Testing from the Trenches" covers through different areas of testing and integration tests in both Java & JavaEE ecosystems:

Definitions of relevant terms around testing and integration testing  
Basic testing tools usable for testing  
Build tools usage for integration testing, including recipes for Maven and Gradle  
Mocks, stubs and fakes, in particular in regard to infrastructure resources such as databases, mail and FTP servers, web services  
In-container testing for the Spring and Spring MVC applications  
In-container testing for JavaEE application  
This book is intended for software developers that want to go beyond just unit-testing and test the collaboration of their classes and modules in an efficient way. At some point in time, available tools were restricted to Jakarta Cactus for Struts. However, the thriving Open Source ecosystem can now provide everything we need to provide proper integration tests, as well as ways to use them with the greatest possible Return Over Investment.

Distributed Hash Table      Nov 12 2021  
This SpringerBrief summarizes the development of Distributed Hash Table in both academic and industrial fields. It covers the main theory, platforms and applications of this key part in distributed systems and applications, especially in large-scale distributed environments. The authors teach the principles of several popular DHT platforms that can solve practical problems such as load balance, multiple replicas, consistency and latency. They also propose DHT-based applications including multicast, anycast, distributed file systems, search, storage, content delivery network, file sharing and communication. These platforms and applications are used in both academic and commercial fields, making Distributed Hash Table a valuable resource for researchers and industry professionals.

Similarity Search      Dec 01 2020  
The area of similarity searching is a very hot topic for both research and commercial applications. Current data processing applications use data with considerably less structure



and much less precise queries than traditional database systems. Examples are multimedia data like images or videos that offer query by example search, product catalogs that provide users with preference based search, scientific data records from observations or experimental analyses such as biochemical and medical data, or XML documents that come from heterogeneous data sources on the Web or in intranets and thus does not exhibit a global schema. Such data can neither be ordered in a canonical manner nor meaningfully searched by precise database queries that would return exact matches. This novel situation is what has given rise to similarity searching, also referred to as content based or similarity retrieval. The most general approach to similarity search, still allowing construction of index structures, is modeled in metric space. In this book, Prof. Zezula and his co authors provide the first monograph on this topic, describing its theoretical background as well as the practical search tools of this innovative technology.

Practical Real-time Data Processing and Analytics  
19 2022 A practical guide to help you tackle different real-time data processing and analytics problems using the best tools for each scenario About This Book Learn about the various challenges in real-time data processing and use the right tools to overcome them This book covers popular tools and frameworks such as Spark, Flink, and Apache Storm to solve all your distributed processing problems A practical guide filled with examples, tips, and tricks to help you perform efficient Big Data processing in real-time Who This Book Is For If you are a Java developer who would like to be equipped with all the tools required to devise an end-to-end practical solution on real-time data streaming, then this book is for you. Basic knowledge of real-time processing would be helpful, and knowing the fundamentals of Maven, Shell, and Eclipse would be

Jun

great. What You Will Learn Get an introduction to the established real-time stack Understand the key integration of all the components Get a thorough understanding of the basic building blocks for real-time solution designing Garnish the search and visualization aspects for your real-time solution Get conceptually and practically acquainted with real-time analytics Be well equipped to apply the knowledge and create your own solutions

**In Detail** With the rise of Big Data, there is an increasing need to process large amounts of data continuously, with a shorter turnaround time. Real-time data processing involves continuous input, processing and output of data, with the condition that the time required for processing is as short as possible. This book covers the majority of the existing and evolving open source technology stack for real-time processing and analytics. You will get to know about all the real-time solution aspects, from the source to the presentation to persistence. Through this practical book, you'll be equipped with a clear understanding of how to solve challenges on your own. We'll cover topics such as how to set up components, basic executions, integrations, advanced use cases, alerts, and monitoring. You'll be exposed to the popular tools used in real-time processing today such as Apache Spark, Apache Flink, and Storm. Finally, you will put your knowledge to practical use by implementing all of the techniques in the form of a practical, real-world use case. By the end of this book, you will have a solid understanding of all the aspects of real-time data processing and analytics, and will know how to deploy the solutions in production environments in the best possible manner.

**Style and Approach** In this practical guide to real-time analytics, each chapter begins with a basic high-level concept of the topic, followed by a practical, hands-on implementation of each concept, where you can see the working and execution of it. The

book is written in a DIY style, with plenty of practical use cases, well-explained code examples, and relevant screenshots and diagrams.

Apache Ignite Quick Start Guide Sep 10 2021 Build efficient, high-performance & scalable systems to process large volumes of data with Apache Ignite Key Features Understand Apache Ignite's in-memory technology Create High-Performance app components with Ignite Build a real-time data streaming and complex event processing system

**Book Description** Apache Ignite is a distributed in-memory platform designed to scale and process large volume of data. It can be integrated with microservices as well as monolithic systems, and can be used as a scalable, highly available and performant deployment platform for microservices. This book will teach you to use Apache Ignite for building a high-performance, scalable, highly available system architecture with data integrity. The book takes you through the basics of Apache Ignite and in-memory technologies. You will learn about installation and clustering Ignite nodes, caching topologies, and various caching strategies, such as cache aside, read and write through, and write behind. Next, you will delve into detailed aspects of Ignite's data grid: web session clustering and querying data. You will learn how to process large volumes of data using compute grid and Ignite's map-reduce and executor service. You will learn about the memory architecture of Apache Ignite and monitoring memory and caches. You will use Ignite for complex event processing, event streaming, and the time-series predictions of opportunities and threats. Additionally, you will go through off-heap and on-heap caching, swapping, and native and Spring framework integration with Apache Ignite. By the end of this book, you will be confident with all the features of Apache Ignite 2.x that can be used to build a high-performance system architecture. What you will learn Use Apache

Ignite's data grid and implement web session clustering  
Gain high performance and linear scalability with in-memory distributed data processing  
Create a microservice on top of Apache Ignite that can scale and perform  
Perform ACID-compliant CRUD operations on an Ignite cache  
Retrieve data from Apache Ignite's data grid using SQL, Scan and Lucene Text query  
Explore complex event processing concepts and event streaming  
Integrate your Ignite app with the Spring framework  
Who this book is for  
The book is for Big Data professionals who want to learn the essentials of Apache Ignite. Prior experience in Java is necessary.

Modern Java Recipes Jan 02 2021  
The introduction of functional programming concepts in Java SE 8 was a drastic change for this venerable object-oriented language. Lambda expressions, method references, and streams fundamentally changed the idioms of the language, and many developers have been trying to catch up ever since. This cookbook will help. With more than 70 detailed recipes, author Ken Kousen shows you how to use the newest features of Java to solve a wide range of problems. For developers comfortable with previous Java versions, this guide covers nearly all of Java SE 8, and includes a chapter focused on changes coming in Java 9. Need to understand how functional idioms will change the way you write code? This cookbook—chock full of use cases—is for you. Recipes cover:  
The basics of lambda expressions and method references  
Interfaces in the `java.util.function` package  
Stream operations for transforming and filtering data  
Comparators and Collectors for sorting and converting streaming data  
Combining lambdas, method references, and streams  
Creating instances and extract values from Java's Optional type  
New I/O capabilities that support functional streams  
The Date-Time API that replaces the legacy Date and Calendar classes  
Mechanisms for experimenting with concurrency and parallelism

Ivy's Choice      Aug 29 2020 Ivy Miller has been lame most of her life-but in a few days' time she'll receive a Faerie wish, to use as she likes. Ivy could wish herself able to walk freely again...if her beloved youngest sister didn't need saving. But Ivy's sister isn't the only person in desperate need of rescue. A man trapped in the shape of a deer emerges from the forest. Can Ivy break the agonizing spell that binds him? Ivy has only one Faerie wish-but many choices. This is Ivy's tale.

Mastering Spring Cloud      Jul 08 2021 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.

TypeScript Microservices \_\_\_\_\_ Mar 04 2021 Build robust microservice-based applications that are distributed, fault tolerant, and always available Key Features Learn to build message-driven services for effective communication Design microservices API using Reactive programming design patterns Deploy, scale and monitor microservices for consistent high performance Book Description In the last few years or so, microservices have achieved the rock star status and right now are one of the most tangible solutions in enterprises to make quick, effective, and scalable applications. The apparent rise of Typescript and long evolution from ES5 to ES6 has seen lots of big companies move to ES6 stack. If you want to learn how to leverage the power of microservices to build robust architecture using reactive programming and Typescript in Node.js, then this book is for you. Typescript Microservices is an end-to-end guide that shows you the implementation of microservices from scratch; right from starting the project to hardening and securing your services. We will begin with a brief introduction to microservices before learning to break your monolith applications into microservices. From here, you will learn reactive programming patterns and how to build APIs for microservices. The next set of topics will take you through the microservice architecture with TypeScript

and communication between services. Further, you will learn to test and deploy your TypeScript microservices using the latest tools and implement continuous integration. Finally, you will learn to secure and harden your microservice. By the end of the book, you will be able to build production-ready, scalable, and maintainable microservices using Node.js and Typescript.

What you will learn

- Get acquainted with the fundamentals behind microservices.
- Explore the behavioral changes needed for moving from monolithic to microservices.
- Dive into reactive programming, Typescript and Node.js to learn its fundamentals in microservices
- Understand and design a service gateway and service registry for your microservices.
- Maintain the state of microservice and handle dependencies.
- Perfect your microservice with unit testing and Integration testing
- Develop a microservice, secure it, deploy it, and then scale it

Who this book is for

This book is for JavaScript developers seeking to utilize their Node.js and Typescript skills to build microservices and move away from the monolithic architecture. Prior knowledge of TypeScript and Node.js is assumed.

- [Getting Started With Hazelcast](#)
- [Getting Started With Hazelcast](#)
- [Performance Evaluation And Benchmarking For The Analytics Era](#)
- [Hands On Reactive Programming In Spring 5](#)
- [The Apache Ignite Book](#)
- [Head First Learn To Code](#)
- [Head First JavaScript Programming](#)

- [Get Your Hands Dirty On Clean Architecture](#)
- [High Performance In memory Computing With Apache Ignite](#)
- [What Is DevOps](#)
- [Practical Real time Data Processing And Analytics](#)
- [Spring Boot Persistence Best Practices](#)
- [Beginning Spring](#)
- [Cloud Native Microservices With Spring And Kubernetes](#)
- [Integration Testing From The Trenches](#)
- [Spring Dynamic Modules In Action](#)
- [Metadata And Semantic Research](#)
- [Distributed Hash Table](#)
- [Learning Karaf Cellar](#)
- [Apache Ignite Quick Start Guide](#)
- [JMeter Cookbook](#)
- [Mastering Spring Cloud](#)
- [Spring Boot In Action](#)
- [American Song T Z And Indexes](#)
- [The Semantic Web Semantics And Big Data](#)
- [TypeScript Microservices](#)
- [Real Time Analytics](#)
- [Modern Java Recipes](#)
- [Similarity Search](#)
- [Vertex In Action](#)
- [Java Coding Problems](#)
- [Ivys Choice](#)
- [GitLab Cookbook](#)
- [Spring Security](#)
- [Istio In Action](#)
- [Learning Spark](#)
- [Continuous Delivery With Docker And Jenkins](#)
- [Introduction To YAML](#)
- [Streaming Systems](#)
- [Java Puzzlers Traps Pitfalls And Corner Cases](#)