the kubernetes book pdf

the kubernetes book pdf is an essential resource for IT professionals, developers, and system administrators interested in mastering Kubernetes, the leading container orchestration platform. This comprehensive guide covers everything from basic concepts to advanced deployment strategies, offering valuable insights into container management, scalability, and automation. As Kubernetes continues to dominate the cloud-native ecosystem, having access to a detailed and well-structured Kubernetes book in PDF format provides learners with the convenience of offline study and easy reference. This article explores the features, benefits, and availability of the Kubernetes book PDF, while also discussing how it aids in understanding Kubernetes architecture, components, and hands-on implementation. Readers will gain clarity on why this resource is indispensable for anyone aiming to excel in container orchestration and cloud infrastructure management. The following sections provide an in-depth overview and detailed content breakdown of the Kubernetes book PDF.

Overview of the Kubernetes Book PDF

The Kubernetes book PDF is a digital edition of a comprehensive manual designed to teach users about Kubernetes technology. It typically includes explanations of core concepts, practical tutorials, and best practices for deploying and managing containerized applications. This format allows learners to access the material on multiple devices, facilitating flexible study schedules and quick reference during development or operational tasks. The book covers the evolution of Kubernetes, its role in the DevOps and cloud-native landscape, and foundational knowledge required to understand container orchestration at scale.

What Is Included in the Kubernetes Book PDF?

The contents of the Kubernetes book PDF generally encompass theoretical knowledge paired with hands-on examples. Readers can expect detailed chapters on cluster architecture, pod lifecycle, service discovery, networking, storage solutions, and security features. Additionally, the book offers insights into Kubernetes APIs, resource management, and troubleshooting techniques. This blend of content ensures that users not only learn Kubernetes concepts but also develop practical skills applicable in real-world scenarios.

Formats and Accessibility

The availability of the Kubernetes book in PDF format makes it an accessible choice for many users. PDF files are compatible across various operating systems, including Windows, macOS, and Linux, and can be viewed on mobile devices and e-readers. The fixed layout of PDF ensures that diagrams, code snippets, and formatting remain consistent, which is crucial for technical documentation. Moreover, the ability to search within the PDF accelerates navigation and enhances the learning experience.

Key Topics Covered in the Kubernetes Book

The Kubernetes book PDF focuses on a wide range of critical topics necessary for mastering Kubernetes. It systematically presents the architecture, components, and operational details of Kubernetes clusters. This section outlines the primary subjects typically covered to provide a well-rounded understanding of the platform.

Kubernetes Architecture and Components

An essential part of the book explains the Kubernetes architecture, including the control plane and worker nodes. It details components such as the API server, etcd, scheduler, controller manager, kubelet, and kube-proxy. Understanding these components is fundamental for managing cluster states and orchestrating container workloads effectively.

Deployment and Scaling

The book provides comprehensive guidance on deploying applications using Kubernetes manifests, Helm charts, and operators. It covers scaling techniques to handle fluctuations in workload demands, including horizontal pod autoscaling and cluster autoscaling. These topics are critical for maintaining application availability and performance in production environments.

Networking and Storage in Kubernetes

Networking concepts such as service discovery, load balancing, and network policies are thoroughly explained. The book also dives into persistent storage options, volume plugins, and stateful application management. These chapters ensure that readers grasp how Kubernetes manages connectivity and data persistence across containers.

Security Best Practices

Security is a vital aspect of Kubernetes management. The book addresses authentication and authorization mechanisms, role-based access control (RBAC), secrets management, and secure communication protocols. Implementing these practices is crucial for protecting cluster integrity and sensitive data.

Monitoring and Troubleshooting

Effective monitoring and troubleshooting techniques help maintain cluster health. The book discusses tools and strategies for logging, metrics collection, and alerting. It also includes common troubleshooting scenarios and solutions, empowering users to quickly resolve issues and optimize performance.

Advantages of Using the Kubernetes Book PDF

Utilizing the Kubernetes book PDF offers several advantages for learners and professionals seeking to deepen their Kubernetes expertise. This section highlights the key benefits of this resource format and content.

Convenience and Portability

The PDF format allows users to download and carry the Kubernetes book on any device, enabling study anytime and anywhere without internet dependence. This portability supports continuous learning and quick access during development or operational tasks.

Comprehensive and Structured Learning

The Kubernetes book PDF is often structured logically, progressing from fundamental concepts to advanced topics. This organization facilitates a step-by-step learning process, making complex subjects more approachable for beginners and detailed enough for experienced users.

Cost-Effectiveness

Many Kubernetes books in PDF format are available at affordable prices or even free through official channels and community contributions. This accessibility reduces the barrier to entry for individuals and organizations aiming to train their teams in Kubernetes technology.

Enhanced Learning Tools

PDF documents support embedded code samples, diagrams, and tables that enrich the learning experience. Users can highlight text, add annotations, and bookmark important sections, which aids in retention and review of critical information.

How to Effectively Use the Kubernetes Book PDF

Maximizing the benefits of the Kubernetes book PDF requires a strategic approach to studying and practical application. This section provides guidelines and tips for effective usage.

Create a Study Plan

Develop a structured study schedule that aligns with your learning goals and availability. Break down the book into manageable sections, focusing on mastering one topic before moving to the next to build a solid foundation.

Engage in Hands-On Practice

Complement reading with practical exercises using a local Kubernetes cluster or cloud-based environments. Applying concepts through real-world scenarios enhances understanding and prepares users for operational challenges.

Utilize Additional Learning Aids

Incorporate supplementary materials such as online tutorials, official Kubernetes documentation, and community forums. These resources can clarify doubts and provide diverse perspectives on complex topics.

Regularly Review and Update Knowledge

Kubernetes is a rapidly evolving technology. Periodically revisiting the Kubernetes book PDF and keeping abreast of new releases ensures that knowledge remains current and relevant to industry standards.

Additional Resources for Kubernetes Learning

While the Kubernetes book PDF is a comprehensive tool, leveraging additional resources can significantly enhance proficiency. This section lists other valuable materials and platforms that complement the book's content.

- **Official Kubernetes Documentation:** The primary source for up-to-date information directly from the Kubernetes project.
- **Online Courses and Tutorials:** Interactive courses provide structured learning paths and hands-on labs.
- **Community Forums and Discussion Groups:** Platforms like Kubernetes Slack channels and Stack Overflow offer peer support and expert advice.
- **Blogs and Articles:** Industry experts publish insights, best practices, and case studies.
- **Certification Programs:** Preparing for certifications such as Certified Kubernetes Administrator (CKA) validates skills and knowledge.

Frequently Asked Questions

Where can I legally download the Kubernetes Book PDF?

You can legally download the Kubernetes Book PDF from the official publisher's website or authorized platforms that offer it for sale or free distribution.

Is there a free version of the Kubernetes Book PDF available?

Some authors or publishers may provide a free sample or an older edition of the Kubernetes Book in PDF format, but the full latest version is usually paid.

What topics does the Kubernetes Book PDF typically cover?

The Kubernetes Book PDF usually covers Kubernetes architecture, deployment, services, networking, storage, security, and best practices for managing containerized applications.

Can I use the Kubernetes Book PDF for offline learning?

Yes, downloading the Kubernetes Book PDF allows you to study Kubernetes concepts and tutorials offline at your own pace.

Are there updated editions of the Kubernetes Book PDF for the latest Kubernetes versions?

Yes, authors often release updated editions of the Kubernetes Book PDF to reflect the latest features and changes in recent Kubernetes releases.

How reliable is the information in the Kubernetes Book PDF for beginners?

Most Kubernetes books, including PDFs, are written to be beginner-friendly, providing step-by-step guidance and clear explanations suitable for new learners.

Can I find the Kubernetes Book PDF on popular ebook platforms?

Yes, the Kubernetes Book PDF is often available on popular ebook platforms like Amazon Kindle, Google Books, or directly from the publisher.

Is the Kubernetes Book PDF suitable for advanced Kubernetes users?

While primarily aimed at beginners and intermediate users, some editions of the Kubernetes Book PDF also cover advanced topics and practical use cases.

What are the benefits of reading the Kubernetes Book PDF over online tutorials?

The Kubernetes Book PDF offers structured, comprehensive, and curated content that helps build a solid foundation, unlike fragmented online tutorials.

Are there supplementary materials available with the Kubernetes Book PDF?

Many Kubernetes books provide supplementary materials such as code examples, labs, or access to online resources to enhance learning alongside the PDF.

Additional Resources

1. *Kubernetes Up & Running: Dive into the Future of Infrastructure*
This book offers a practical introduction to Kubernetes, guiding readers through deploying, managing, and scaling containerized applications. It covers core concepts and advanced techniques, making it ideal for beginners and experienced developers alike. The authors blend theory with hands-on examples to help readers grasp Kubernetes fundamentals quickly.

2. *The Kubernetes Book*
A comprehensive guide that breaks down Kubernetes architecture, components, and workflow. It includes step-by-step tutorials on setting up clusters, managing deployments, and leveraging Kubernetes for cloud-native applications. The book is praised for its clarity and is suitable for IT professionals seeking to deepen their container orchestration knowledge.

3. *Kubernetes Patterns: Reusable Elements for Designing Cloud-Native Applications*
This book explores recurring design patterns and best practices for building applications on Kubernetes. It focuses on scalable, resilient, and maintainable architectures using real-world examples. Readers learn how to apply these patterns to optimize their Kubernetes deployments effectively.

4. *Learning Kubernetes*
Targeted at developers and system administrators new to Kubernetes, this book provides a solid foundation in container orchestration. It covers installation, configuration, and basic operations with an emphasis on hands-on labs. The approachable style makes complex topics accessible to newcomers.

5. *Cloud Native DevOps with Kubernetes*
This book bridges the gap between development and operations by demonstrating how to implement DevOps principles using Kubernetes. It showcases tools and techniques for continuous integration, delivery, and monitoring in a cloud-native environment. Readers gain insight into automating infrastructure and improving application lifecycle management.

6. *Kubernetes in Action*
A deep dive into Kubernetes, this resource covers everything from basic concepts to advanced features like custom controllers and operators. It includes practical examples and real-world scenarios to help readers master Kubernetes cluster management. The book is ideal for those looking to build expertise in production-grade Kubernetes environments.

7. *Managing Kubernetes: Operating Kubernetes Clusters in the Real World*

Focused on cluster administration, this book addresses the challenges of running Kubernetes in production. It covers topics such as security, upgrades, monitoring, and troubleshooting. System administrators and DevOps engineers will find valuable strategies for maintaining robust Kubernetes infrastructures.

8. *Kubernetes Cookbook: Practical Solutions to Container Management and Orchestration*
This cookbook-style book offers a collection of recipes for solving common problems in Kubernetes. Each recipe provides concise instructions to tackle tasks like networking, storage, and scaling. It serves as a handy reference for developers and operators needing quick solutions.

9. *Infrastructure as Code with Kubernetes*
This book emphasizes automating infrastructure deployment and management using Kubernetes and related tools. It discusses declarative configuration, GitOps workflows, and integration with CI/CD pipelines. Readers learn how to achieve consistent and repeatable infrastructure setups in cloud environments.

The Kubernetes Book Pdf

The Kubernetes Book PDF

Author: Dr. Anya Sharma (Fictional Author)

Outline:

Introduction: What is Kubernetes? Why learn it? Benefits and use cases.
Chapter 1: Core Kubernetes Concepts: Pods, Deployments, Services, Namespaces, Replication Controllers.
Chapter 2: Working with Kubernetes: Installation, Configuration, Command-line Interface (kubectl), basic commands.
Chapter 3: Managing Applications: Deployments, StatefulSets, DaemonSets, Jobs, CronJobs.
Chapter 4: Networking and Security in Kubernetes: Services, Ingress, Network Policies, Security Contexts.
Chapter 5: Storage in Kubernetes: Persistent Volumes, Persistent Volume Claims.
Chapter 6: Monitoring and Logging: Metrics, dashboards, logging best practices.
Chapter 7: Advanced Kubernetes Concepts: RBAC, Secrets Management, Helm, Operators.
Chapter 8: Kubernetes in Production: Deployment strategies, scaling, high availability, troubleshooting.
Conclusion: Future trends and continued learning resources.

The Definitive Guide to Mastering Kubernetes: A Deep Dive into Container Orchestration

Kubernetes has rapidly become the industry standard for container orchestration, revolutionizing how organizations deploy, manage, and scale applications. This comprehensive guide, available as a downloadable PDF, provides a practical and in-depth understanding of Kubernetes, empowering you to build and manage robust and scalable applications in the cloud or on-premise. Whether you're a seasoned DevOps engineer or a newcomer to containerization, this book serves as your essential companion on the journey to Kubernetes mastery.

1. Introduction: Understanding the Power of Kubernetes

Kubernetes, often shortened to K8s, is an open-source platform designed to automate the deployment, scaling, and management of containerized applications. At its core, it simplifies the complexities of managing containers across a cluster of machines, abstracting away the underlying infrastructure and providing a consistent platform for application deployment.

This introduction will cover several key aspects:

What is containerization? We'll explain the benefits of using containers (Docker, etc.) for software packaging and deployment, including portability, consistency, and efficiency. We will introduce the concept of images and containers.
Why Kubernetes? The inherent challenges of managing containers manually at scale – including resource allocation, networking, and load balancing – will be discussed, highlighting why Kubernetes is a necessary solution.
Kubernetes architecture: A high-level overview of the key components of a Kubernetes cluster (master nodes, worker nodes, control plane) will be presented, providing a foundational understanding of its structure.
Key benefits and use cases: We'll explore the advantages of using Kubernetes, such as scalability, high availability, automated rollouts, and self-healing capabilities. Real-world use cases across various industries will be highlighted to showcase its versatility.
Who should read this book? This section will target specific audiences who will benefit from this guide, from DevOps engineers and cloud architects to developers looking to deploy applications in a cloud-native environment.

2. Chapter 1: Core Kubernetes Concepts: The Building Blocks

of Your Cluster

This chapter lays the groundwork for understanding the fundamental building blocks of Kubernetes. We'll delve into the core concepts that form the foundation of any Kubernetes deployment.

Pods: The smallest deployable units in Kubernetes, encapsulating one or more containers. We'll examine how pods are created, managed, and their lifecycle.
Deployments: The mechanism for managing the desired state of your applications. We'll learn how to define, create, and update deployments, incorporating concepts like replicas and rolling updates.
Services: Abstractions that provide stable network access to your pods. We'll cover different types of services (ClusterIP, NodePort, LoadBalancer) and their functionalities.
Namespaces: Logical partitions within a cluster, allowing for isolation and organization of resources. Understanding how to use namespaces for better resource management is crucial.
Replication Controllers: Older approach to managing replica sets, providing a historical context and understanding of how deployments evolved.

3. Chapter 2: Working with Kubernetes: Hands-on Experience

This chapter shifts from theory to practice, guiding you through the process of setting up and interacting with a Kubernetes cluster.

Installation: Different methods for installing Kubernetes, including using managed services (like GKE, AKS, EKS) and self-hosting. The chapter provides clear instructions and considerations for each approach.
Configuration: Configuring the kubeconfig file to connect to your cluster and manage access control.
kubectl: Mastering the Kubernetes command-line interface (kubectl) is essential. This section covers frequently used commands for managing resources, pods, deployments, and more.
Basic commands: Practical examples using kubectl commands to create, list, describe, and delete Kubernetes resources will be provided. This will build confidence and practical skills.

4. Chapter 3: Managing Applications: Scaling and Deployment Strategies

This chapter focuses on deploying and managing applications effectively within a Kubernetes cluster.

Deployments: A deeper dive into the functionalities of deployments, including strategies like rolling updates, rolling back, and canary deployments.
StatefulSets: Managing applications that require persistent storage and unique identities.
DaemonSets: Running a single instance of a pod on every node in the cluster.
Jobs: Running one-off tasks within the cluster.
CronJobs: Scheduling periodic execution of jobs.

5. Chapter 4: Networking and Security in Kubernetes: Ensuring Reliability and Safety

This chapter addresses crucial aspects of securing and networking your applications within the Kubernetes environment.

Services: A detailed explanation of service types and how they enable communication between pods.
Ingress: Managing external access to services within the cluster using Ingress controllers.
Network Policies: Implementing network segmentation and control within the cluster to enhance security.
Security Contexts: Defining security policies for containers, including user and group management, and limiting capabilities.

6. Chapter 5: Storage in Kubernetes: Persistent Data Management

This chapter covers managing persistent storage for your applications.

Persistent Volumes (PVs): Abstracting storage resources provided by the underlying infrastructure.
Persistent Volume Claims (PVCs): Requests for storage resources by applications. We'll cover how to define and manage PVCs and bind them to PVs.

7. Chapter 6: Monitoring and Logging: Observability and Troubleshooting

This chapter focuses on building observability into your Kubernetes deployments.

Metrics: Gathering and visualizing metrics related to resource utilization, application performance, and cluster health.
Dashboards: Using monitoring tools to create dashboards for visualizing key metrics.
Logging: Best practices for collecting, centralizing, and analyzing logs from your applications and the Kubernetes cluster.

8. Chapter 7: Advanced Kubernetes Concepts: Expanding Your Expertise

This chapter introduces more advanced concepts that will enhance your proficiency in Kubernetes.

Role-Based Access Control (RBAC): Implementing granular access control to manage security and permissions within the cluster.
Secrets Management: Securely storing and managing sensitive information like passwords and API keys.
Helm: Using Helm, the package manager for Kubernetes, to simplify application deployment and management.
Operators: Automating complex application management tasks using Kubernetes Operators.

9. Chapter 8: Kubernetes in Production: Real-World Deployment Strategies

This chapter prepares you for deploying and managing Kubernetes in a production environment.

Deployment strategies: Advanced strategies like blue-green deployments and rolling updates for zero-downtime deployments.
Scaling: Scaling applications horizontally and vertically to meet demand.
High availability: Designing highly available deployments to ensure application resilience.
Troubleshooting: Common issues and solutions encountered when running Kubernetes in production.

10. Conclusion: The Future of Kubernetes and Continued Learning

This concluding chapter summarizes the key takeaways, provides resources for continued learning, and offers insights into the future trends in the Kubernetes ecosystem.

FAQs

1. What is the difference between Docker and Kubernetes? Docker is a containerization technology, while Kubernetes is a container orchestration platform. Docker creates and runs containers, while Kubernetes manages and scales them across a cluster.

2. Is Kubernetes difficult to learn? The initial learning curve can be steep, but with dedicated effort and resources like this book, it becomes manageable. The book is structured to guide you progressively through the concepts.

3. What are the prerequisites for learning Kubernetes? A basic understanding of Linux commands, networking concepts, and containerization (Docker) is helpful but not strictly required.

4. What are the main benefits of using Kubernetes? Scalability, high availability, automated deployments, efficient resource utilization, and improved security are key benefits.

5. Can I use Kubernetes on my local machine? Yes, you can install and run a single-node Kubernetes cluster on your local machine for learning and testing purposes.

6. What are some popular Kubernetes distributions? There are various distributions, including Google Kubernetes Engine (GKE), Amazon Elastic Kubernetes Service (EKS), Azure Kubernetes Service (AKS), and Rancher Kubernetes Engine (RKE).

7. How can I monitor my Kubernetes cluster? Various tools, like Prometheus and Grafana, can be used to monitor resource usage, application performance, and cluster health.

8. What is the role of kubectl? `kubectl` is the command-line interface for interacting with the Kubernetes API. It's used to manage and control all aspects of your cluster.

9. Is Kubernetes only for cloud environments? While cloud providers often offer managed Kubernetes services, you can also deploy Kubernetes on-premise or in hybrid environments.

Related Articles:

1. Kubernetes Networking Explained: A detailed exploration of Kubernetes networking concepts, including services, ingress, and network policies.

2. Securing Your Kubernetes Cluster: Best practices for securing your Kubernetes cluster, including RBAC, network policies, and secrets management.

3. Deploying Applications on Kubernetes: Step-by-step guide on deploying applications on Kubernetes, including different deployment strategies.

4. Monitoring and Logging in Kubernetes: A comprehensive guide to monitoring and logging in Kubernetes, including various tools and techniques.

5. Kubernetes Storage Solutions: Exploring various storage options in Kubernetes, including persistent volumes and persistent volume claims.

6. Introduction to Helm: Package Management for Kubernetes: A beginner-friendly guide to using Helm to manage and deploy applications on Kubernetes.

7. Scaling Applications on Kubernetes: Different strategies for scaling your applications on Kubernetes to handle increasing demand.

8. Troubleshooting Common Kubernetes Issues: A guide to diagnosing and resolving common issues encountered when working with Kubernetes.

9. Kubernetes High Availability Best Practices: Designing and implementing high-availability solutions for your Kubernetes deployments.

the kubernetes book pdf: Kubernetes: Up and Running Kelsey Hightower, Brendan Burns, Joe Beda, 2017-09-07 Legend has it that Google deploys over two billion application containers a week. How’s that possible? Google revealed the secret through a project called Kubernetes, an open source cluster orchestrator (based on its internal Borg system) that radically simplifies the task of building, deploying, and maintaining scalable distributed systems in the cloud. This practical guide shows you how Kubernetes and container technology can help you achieve new levels of velocity, agility, reliability, and efficiency. Authors Kelsey Hightower, Brendan Burns, and Joe Beda—who’ve worked on Kubernetes at Google and other organizatons—explain how this system fits into the lifecycle of a distributed application. You will learn how to use tools and APIs to automate scalable distributed systems, whether it is for online services, machine-learning applications, or a cluster of Raspberry Pi computers. Explore the distributed system challenges that Kubernetes addresses Dive into containerized application development, using containers such as Docker Create and run containers on Kubernetes, using the docker image format and container runtime Explore specialized objects essential for running applications in production Reliably roll out new software versions without downtime or errors Get examples of how to develop and deploy real-world applications in Kubernetes

the kubernetes book pdf: The Kubernetes Book Nigel Poulton (Telecommunications engineer), Pushkar Joglekar, 2022 Containers have revolutionised the way we package and run applications. However, like most things, containers come with a bunch of challenges. This is where Kubernetes comes into play. Kubernetes helps you deploy and manage containerised applications at scale. It also abstracts the underlying infrastructure so that you don't need to care if you're deploying applications to Amazon Web Services, Microsoft Azure, or your own on-premises datacenter. With Kubernetes, you can develop applications on your laptop, deploy to your favourite cloud platform, migrate to a different cloud platform, and even migrate to your on-premises datacenters. Finally, Kubernetes and cloud technologies are developing fast! That's why this book will be updated every year, meaning it's always up-to-date with the latest versions of Kubernetes and

the latest trends in the cloud-native ecosystem. --

the kubernetes book pdf: Kubernetes for Full-Stack Developers , 2020-02-04 This book is designed to help newcomers and experienced users alike learn about Kubernetes. Its chapters are designed to introduce core Kubernetes concepts and to build on them to a level where running an application on a production cluster is a familiar, repeatable, and automated process. From there, more advanced topics are introduced, like how to manage a Kubernetes cluster itself.

the kubernetes book pdf: *Quick Start Kubernetes* Nigel Poulton, 2023-07-05 The 2024 edition is fully updated for Kubernetes v1.29 and all the latest trends in the cloud-native ecosystem. Do you need to figure out what Kubernetes is all about? Do you like learning through hands-on? If yes, this is the book for you... Quick Start Kubernetes, brought to you by best-selling author Nigel Poulton, assumes zero prior experience and gets you to the point you can hold your own in a conversation with an expert, and deploy simple applications. And it does it in less than 100 pages! You'll learn: What Kubernetes is Why we have Kubernetes The role Kubernetes will play in the future of infrastructure and applications You'll also perform the following hands-on tasks: Build a Kubernetes cluster Containerize an app Deploy the app to Kubernetes Break the app and watch it self-heal Scale the app Perform a rolling update Along the way, Nigel explains everything as clearly as possible and busts every piece of jargon. When you're done, you'll be in love with Kubernetes and ready to take your journey to the next level.

the kubernetes book pdf: The Kubernetes Book Nigel Poulton, 2023-07-04 2024 edition. Fully updated for Kubernetes v1.29. Brand new chapter covering WebAssembly on Kubernetes. The Kubernetes Book, by Nigel Poulton, renowned author and video trainer, is up to date with the latest trends in Kubernetes and the rapidly evolving cloud-native ecosystem. Containers transformed how we package and deploy applications, but they came with inherent challenges. Kubernetes is a platform for deploying and managing containerised applications at scale. It also abstracts underlying infrastructure, making it easier to deploy and manage applications across heterogenous clouds and on-premises environments. The Kubernetes Book offers a beginner-friendly approach to mastering Kubernetes architecture and core concepts such as Pods, Deployments, Services, StatefulSets, Ingress, ConfigMaps, and more. It also demystifies the Kubernetes API, teaches you how to secure Kubernetes, and brings you up to speed with important cloud-native concepts such as microservices, declarative configuration, desired state, reconciliation, and more. The book also serves as a comprehensive guide for software developers, systems administrators, cloud engineers, and architects to help them master Kubernetes. It offers the most precise explanations and is full of practical examples to help develop applications on a laptop and then deploy them to real-world Kubernetes environments. The Kubernetes Book is updated annually, meaning it's always up to date with the latest and greatest in the Kubernetes and cloud-native ecosystems.

the kubernetes book pdf: Mastering Kubernetes Gigi Sayfan, 2017-05-25 Master the art of container management utilizing the power of Kubernetes. About This Book This practical guide demystifies Kubernetes and ensures that your clusters are always available, scalable, and up to date Discover new features such as autoscaling, rolling updates, resource quotas, and cluster size Master the skills of designing and deploying large clusters on various cloud platforms Who This Book Is For The book is for system administrators and developers who have intermediate level of knowledge with Kubernetes and are now waiting to master its advanced features. You should also have basic networking knowledge. This advanced-level book provides a pathway to master Kubernetes. What You Will Learn Architect a robust Kubernetes cluster for long-time operation Discover the advantages of running Kubernetes on GCE, AWS, Azure, and bare metal See the identity model of Kubernetes and options for cluster federation Monitor and troubleshoot Kubernetes clusters and run a highly available Kubernetes Create and configure custom Kubernetes resources and use third-party resources in your automation workflows Discover the art of running complex stateful applications in your container environment Deliver applications as standard packages In Detail Kubernetes is an open source system to automate the deployment, scaling, and management of containerized applications. If you are running more than just a few containers or want automated

management of your containers, you need Kubernetes. This book mainly focuses on the advanced management of Kubernetes clusters. It covers problems that arise when you start using container orchestration in production. We start by giving you an overview of the guiding principles in Kubernetes design and show you the best practises in the fields of security, high availability, and cluster federation. You will discover how to run complex stateful microservices on Kubernetes including advanced features as horizontal pod autoscaling, rolling updates, resource quotas, and persistent storage back ends. Using real-world use cases, we explain the options for network configuration and provides guidelines on how to set up, operate, and troubleshoot various Kubernetes networking plugins. Finally, we cover custom resource development and utilization in automation and maintenance workflows. By the end of this book, you'll know everything you need to know to go from intermediate to advanced level. Style and approach Delving into the design of the Kubernetes platform, the reader will be exposed to the advanced features and best practices of Kubernetes. This book will be an advanced level book which will provide a pathway to master Kubernetes

the kubernetes book pdf: Kubernetes Patterns Bilgin Ibryam, Roland Huß, 2019-04-09 The way developers design, build, and run software has changed significantly with the evolution of microservices and containers. These modern architectures use new primitives that require a different set of practices than most developers, tech leads, and architects are accustomed to. With this focused guide, Bilgin Ibryam and Roland Huß from Red Hat provide common reusable elements, patterns, principles, and practices for designing and implementing cloud-native applications on Kubernetes. Each pattern includes a description of the problem and a proposed solution with Kubernetes specifics. Many patterns are also backed by concrete code examples. This book is ideal for developers already familiar with basic Kubernetes concepts who want to learn common cloud native patterns. You'll learn about the following pattern categories: Foundational patterns cover the core principles and practices for building container-based cloud-native applications. Behavioral patterns explore finer-grained concepts for managing various types of container and platform interactions. Structural patterns help you organize containers within a pod, the atom of the Kubernetes platform. Configuration patterns provide insight into how application configurations can be handled in Kubernetes. Advanced patterns covers more advanced topics such as extending the platform with operators.

the kubernetes book pdf: *Docker and Kubernetes for Java Developers* Jaroslaw Krochmalski, 2017-08-30 Leverage the lethal combination of Docker and Kubernetes to automate deployment and management of Java applications About This Book Master using Docker and Kubernetes to build, deploy and manage Java applications in a jiff Learn how to create your own Docker image and customize your own cluster using Kubernetes Empower the journey from development to production using this practical guide. Who This Book Is For The book is aimed at Java developers who are eager to build, deploy, and manage applications very quickly using container technology. They need have no knowledge of Docker and Kubernetes. What You Will Learn Package Java applications into Docker images Understand the running of containers locally Explore development and deployment options with Docker Integrate Docker into Maven builds Manage and monitor Java applications running on Kubernetes clusters Create Continuous Delivery pipelines for Java applications deployed to Kubernetes In Detail Imagine creating and testing Java EE applications on Apache Tomcat Server or Wildfly Application server in minutes along with deploying and managing Java applications swiftly. Sounds too good to be true? But you have a reason to cheer as such scenarios are only possible by leveraging Docker and Kubernetes. This book will start by introducing Docker and delve deep into its networking and persistent storage concepts. You will then proceed to learn how to refactor monolith application into separate services by building an application and then packaging it into Docker containers. Next, you will create an image containing Java Enterprise Application and later run it using Docker. Moving on, the book will focus on Kubernetes and its features and you will learn to deploy a Java application to Kubernetes using Maven and monitor a Java application in production. By the end of the book, you will get hands-on with some more advanced topics to further

extend your knowledge about Docker and Kubernetes. Style and approach An easy-to-follow, practical guide that will help Java developers develop, deploy, and manage Java applications efficiently.

the kubernetes book pdf: Kubernetes Operators Jason Dobies, Joshua Wood, 2020-02-21 Operators are a way of packaging, deploying, and managing Kubernetes applications. A Kubernetes application doesn't just run on Kubernetes; it's composed and managed in Kubernetes terms. Operators add application-specific operational knowledge to a Kubernetes cluster, making it easier to automate complex, stateful applications and to augment the platform. Operators can coordinate application upgrades seamlessly, react to failures automatically, and streamline repetitive maintenance like backups. Think of Operators as site reliability engineers in software. They work by extending the Kubernetes control plane and API, helping systems integrators, cluster administrators, and application developers reliably deploy and manage key services and components. Using real-world examples, authors Jason Dobies and Joshua Wood demonstrate how to use Operators today and how to create Operators for your applications with the Operator Framework and SDK. Learn how to establish a Kubernetes cluster and deploy an Operator Examine a range of Operators from usage to implementation Explore the three pillars of the Operator Framework: the Operator SDK, the Operator Lifecycle Manager, and Operator Metering Build Operators from the ground up using the Operator SDK Build, package, and run an Operator in development, testing, and production phases Learn how to distribute your Operator for installation on Kubernetes clusters

the kubernetes book pdf: Kubernetes in Action Marko Luksa, 2017-12-14 Summary Kubernetes in Action is a comprehensive guide to effectively developing and running applications in a Kubernetes environment. Before diving into Kubernetes, the book gives an overview of container technologies like Docker, including how to build containers, so that even readers who haven't used these technologies before can get up and running. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Kubernetes is Greek for helmsman, your guide through unknown waters. The Kubernetes container orchestration system safely manages the structure and flow of a distributed application, organizing containers and services for maximum efficiency. Kubernetes serves as an operating system for your clusters, eliminating the need to factor the underlying network and server infrastructure into your designs. About the Book Kubernetes in Action teaches you to use Kubernetes to deploy container-based distributed applications. You'll start with an overview of Docker and Kubernetes before building your first Kubernetes cluster. You'll gradually expand your initial application, adding features and deepening your knowledge of Kubernetes architecture and operation. As you navigate this comprehensive guide, you'll explore high-value topics like monitoring, tuning, and scaling. What's Inside Kubernetes' internals Deploying containers across a cluster Securing clusters Updating applications with zero downtime About the Reader Written for intermediate software developers with little or no familiarity with Docker or container orchestration systems. About the Author Marko Luksa is an engineer at Red Hat working on Kubernetes and OpenShift. Table of Contents PART 1 - OVERVIEW Introducing Kubernetes First steps with Docker and Kubernetes PART 2 - CORE CONCEPTS Pods: running containers in Kubernetes Replication and other controllers: deploying managed pods Services: enabling clients to discover and talk to pods Volumes: attaching disk storage to containers ConfigMaps and Secrets: configuring applications Accessing pod metadata and other resources from applications Deployments: updating applications declaratively StatefulSets: deploying replicated stateful applications PART 3 - BEYOND THE BASICS Understanding Kubernetes internals Securing the Kubernetes API server Securing cluster nodes and the network Managing pods' computational resources Automatic scaling of pods and cluster nodes Advanced scheduling Best practices for developing apps Extending Kubernetes

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built-in Kubernetes toolsLearn techniques to prevent attackers from compromising applications and accessing resources for crypto-coin miningBook Description Kubernetes is an open source orchestration platform for managing containerized applications. Despite widespread adoption of the technology, DevOps engineers might be unaware of the pitfalls of containerized environments. With this comprehensive book, you'll learn how to use the different security integrations available on the Kubernetes platform to safeguard your deployments in a variety of scenarios. Learn Kubernetes Security starts by taking you through the Kubernetes architecture and the networking model. You'll then learn about the Kubernetes threat model and get to grips with securing clusters. Throughout the book, you'll cover various security aspects such as authentication, authorization, image scanning, and resource monitoring. As you advance, you'll learn about securing cluster components (the kube-apiserver, CoreDNS, and kubelet) and pods (hardening image, security context, and PodSecurityPolicy). With the help of hands-on examples, you'll also learn how to use open source tools such as Anchore, Prometheus, OPA, and Falco to protect your deployments. By the end of this Kubernetes book, you'll have gained a solid understanding of container security and be able to protect your clusters from cyberattacks and mitigate cybersecurity threats. What you will learnUnderstand the basics of Kubernetes architecture and networkingGain insights into different security integrations provided by the Kubernetes platformDelve into Kubernetes' threat modeling and security domainsExplore different security configurations from a variety of practical examplesGet to grips with using and deploying open source tools to protect your deploymentsDiscover techniques to mitigate or prevent known Kubernetes hacksWho this book is for This book is for security consultants, cloud administrators, system administrators, and DevOps engineers interested in securing their container deployments. If you're looking to secure your Kubernetes clusters and cloud-based deployments, you'll find this book useful. A basic understanding of cloud computing and containerization is necessary to make the most of this book.

the kubernetes book pdf: Cloud Native DevOps with Kubernetes John Arundel, Justin Domingus, 2019-03-08 Kubernetes is the operating system of the cloud native world, providing a reliable and scalable platform for running containerized workloads. In this friendly, pragmatic book, cloud experts John Arundel and Justin Domingus show you what Kubernetes can do—and what you can do with it. You'll learn all about the Kubernetes ecosystem, and use battle-tested solutions to everyday problems. You'll build, step by step, an example cloud native application and its supporting infrastructure, along with a development environment and continuous deployment pipeline that you can use for your own applications. Understand containers and Kubernetes from first principles; no experience necessary Run your own clusters or choose a managed Kubernetes service from Amazon, Google, and others Use Kubernetes to manage resource usage and the container lifecycle Optimize clusters for cost, performance, resilience, capacity, and scalability Learn the best tools for developing, testing, and deploying your applications Apply the latest industry practices for security, observability, and monitoring Adopt DevOps principles to help make your development teams lean, fast, and effective

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long-term data, monitoring your clusters and applications and implementing design patterns for multi-container pods. The concluding chapters guide you through the upgrade of your deployed cluster. After reading this book, you will have enough knowledge to deploy a complex application using a Kubernetes cluster and be ready for the certification exams. You will: Deploy a Kubernetes cluster with kubeadm and learn how the control plane works Discover how the Kubernetes API is structured Deploy secure, auto-scaled, and self-healing applications Master the kubectl command-line tool.

the kubernetes book pdf: Hacking Kubernetes Andrew Martin, Michael Hausenblas, 2021-10-13 Want to run your Kubernetes workloads safely and securely? This practical book provides a threat-based guide to Kubernetes security. Each chapter examines a particular component's architecture and potential default settings and then reviews existing high-profile attacks and historical Common Vulnerabilities and Exposures (CVEs). Authors Andrew Martin and Michael Hausenblas share best-practice configuration to help you harden clusters from possible angles of attack. This book begins with a vanilla Kubernetes installation with built-in defaults. You'll examine an abstract threat model of a distributed system running arbitrary workloads, and then progress to a detailed assessment of each component of a secure Kubernetes system. Understand where your Kubernetes system is vulnerable with threat modelling techniques Focus on pods, from configurations to attacks and defenses Secure your cluster and workload traffic Define and enforce policy with RBAC, OPA, and Kyverno Dive deep into sandboxing and isolation techniques Learn how to detect and mitigate supply chain attacks Explore filesystems, volumes, and sensitive information at rest Discover what can go wrong when running multitenant workloads in a cluster Learn what you can do if someone breaks in despite you having controls in place

the kubernetes book pdf: Kubernetes Best Practices Brendan Burns, Eddie Villalba, Dave Strebel, Lachlan Evenson, 2019-11-14 In this practical guide, four Kubernetes professionals with deep experience in distributed systems, enterprise application development, and open source will guide you through the process of building applications with this container orchestration system. Based on the experiences of companies that are running Kubernetes in production successfully, many of the methods are also backed by concrete code examples. This book is ideal for those already familiar with basic Kubernetes concepts who want to learn common best practices. You'll learn exactly what you need to know to build your best app with Kubernetes the first time. Set up and develop applications in Kubernetes Learn patterns for monitoring, securing your systems, and managing upgrades, rollouts, and rollbacks Understand Kubernetes networking policies and where service mesh fits in Integrate services and legacy applications and develop higher-level platforms on top of Kubernetes Run machine learning workloads in Kubernetes

the kubernetes book pdf: *Kubernetes Security and Observability* Brendan Creane, Amit Gupta, 2021-10-26 Securing, observing, and troubleshooting containerized workloads on Kubernetes can be daunting. It requires a range of considerations, from infrastructure choices and cluster configuration to deployment controls and runtime and network security. With this practical book, you'll learn how to adopt a holistic security and observability strategy for building and securing cloud native applications running on Kubernetes. Whether you're already working on cloud native applications or are in the process of migrating to its architecture, this guide introduces key security and observability concepts and best practices to help you unleash the power of cloud native applications. Authors Brendan Creane and Amit Gupta from Tigera take you through the full breadth of new cloud native approaches for establishing security and observability for applications running on Kubernetes. Learn why you need a security and observability strategy for cloud native applications and determine your scope of coverage Understand key concepts behind the book's security and observability approach Explore the technology choices available to support this strategy Discover how to share security responsibilities across multiple teams or roles Learn how to architect Kubernetes security and observability for multicloud and hybrid environments

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development. You'll learn how to develop a full-stack application using Node.js and MongoDB and how to and manage them using Docker, then Docker Compose, and finally Kubernetes.

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the kubernetes book pdf: *Managing Kubernetes* Brendan Burns, Craig Tracey, 2018-11-12 While Kubernetes has greatly simplified the task of deploying containerized applications, managing this orchestration framework on a daily basis can still be a complex undertaking. With this practical book, site reliability and DevOps engineers will learn how to build, operate, manage, and upgrade a Kubernetes cluster—whether it resides on cloud infrastructure or on-premises. Brendan Burns, cofounder of Kubernetes, and Craig Tracey, staff field engineer at Heptio, dissect how Kubernetes works internally and demonstrate ways to maintain, adjust, and improve the cluster to suit your particular use case. You'll learn how to make architectural choices for designing a cluster, managing access control, monitoring and alerting, and upgrading Kubernetes. Dive in and discover how to take full advantage of this orchestration framework's capabilities. Learn how your cluster operates, how developers use it to deploy applications, and how Kubernetes can facilitate a developer's job Adjust, secure, and tune your cluster by understanding Kubernetes APIs and configuration options Detect cluster-level problems early and learn the steps necessary to respond and recover quickly Determine how and when to add libraries, tools, and platforms that build on, extend, or otherwise improve a Kubernetes cluster

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idea—managing your infrastructure with the same Git pull requests you use to manage your codebase. In this in-depth tutorial, you'll learn to operate infrastructures based on powerful-but-complex technologies such as Kubernetes with the same Git version control tools most developers use daily. With these GitOps techniques and best practices, you'll accelerate application development without compromising on security, easily roll back infrastructure changes, and seamlessly introduce new team members to your automation process. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology With GitOps you use the Git version control system to organize and manage your infrastructure just like any other codebase. It's an excellent model for applications deployed as containers and pods on Kubernetes. About the book GitOps and Kubernetes teaches you how to use Git and the GitOps methodology to manage a Kubernetes cluster. The book interleaves theory with practice, presenting core Ops concepts alongside easy-to-implement techniques so you can put GitOps into action. Learn to develop pipelines that trace changes, roll back mistakes, and audit container deployment. What's inside Managing secrets the GitOps way Controlling access with Git, Kubernetes, and Pipeline Branching, namespaces, and configuration About the reader For developers and operations engineers familiar with continuous delivery, Git, and Kubernetes. About the author Billy Yuen, Alexander Matyushentsev, Todd Ekenstam, and Jesse Suen are principal engineers at Intuit. They are widely recognized for their work in GitOps for Kubernetes. Table of Contents PART 1 - BACKGROUND 1 Why GitOps? 2 Kubernetes & GitOps PART 2 - PATTERNS & PROCESSES 3 Environment Management 4 Pipelines 5 Deployment Strategies 6 Access Control & Security 7 Secrets 8 Observability PART 3 - TOOLS 9 Argo CD 10 Jenkins X 11 Flux

the kubernetes book pdf: Production Kubernetes Josh Rosso, Rich Lander, Alex Brand, John Harris, 2021-03-16 Kubernetes has become the dominant container orchestrator, but many organizations that have recently adopted this system are still struggling to run actual production workloads. In this practical book, four software engineers from VMware bring their shared experiences running Kubernetes in production and provide insight on key challenges and best practices. The brilliance of Kubernetes is how configurable and extensible the system is, from pluggable runtimes to storage integrations. For platform engineers, software developers, infosec, network engineers, storage engineers, and others, this book examines how the path to success with Kubernetes involves a variety of technology, pattern, and abstraction considerations. With this book, you will: Understand what the path to production looks like when using Kubernetes Examine where gaps exist in your current Kubernetes strategy Learn Kubernetes's essential building blocks--and their trade-offs Understand what's involved in making Kubernetes a viable location for applications Learn better ways to navigate the cloud native landscape

the kubernetes book pdf: Kubernetes and Docker - An Enterprise Guide Scott Surovich, Marc Boorshtein, 2020-11-06 Apply Kubernetes beyond the basics of Kubernetes clusters by implementing IAM using OIDC and Active Directory, Layer 4 load balancing using MetalLB, advanced service integration, security, auditing, and CI/CD Key Features Find out how to add enterprise features to a Kubernetes cluster with theory and exercises to guide you Understand advanced topics including load balancing, externalDNS, IDP integration, security, auditing, backup, and CI/CD Create development clusters for unique testing requirements, including running multiple clusters on a single server to simulate an enterprise environment Book DescriptionContainerization has changed the DevOps game completely, with Docker and Kubernetes playing important roles in altering the flow of app creation and deployment. This book will help you acquire the knowledge and tools required to integrate Kubernetes clusters in an enterprise environment. The book begins by introducing you to Docker and Kubernetes fundamentals, including a review of basic Kubernetes objects. You'll then get to grips with containerization and understand its core functionalities, including how to create ephemeral multinode clusters using kind. As you make progress, you'll learn about cluster architecture, Kubernetes cluster deployment, and cluster management, and get started with application deployment. Moving on, you'll find out how to integrate your container to a cloud platform and integrate tools including MetalLB, externalDNS, OpenID connect (OIDC), pod security

policies (PSPs), Open Policy Agent (OPA), Falco, and Velero. Finally, you will discover how to deploy an entire platform to the cloud using continuous integration and continuous delivery (CI/CD). By the end of this Kubernetes book, you will have learned how to create development clusters for testing applications and Kubernetes components, and be able to secure and audit a cluster by implementing various open-source solutions including OpenUnison, OPA, Falco, Kibana, and Velero.What you will learn Create a multinode Kubernetes cluster using kind Implement Ingress, MetalLB, and ExternalDNS Configure a cluster OIDC using impersonation Map enterprise authorization to Kubernetes Secure clusters using PSPs and OPA Enhance auditing using Falco and EFK Back up your workload for disaster recovery and cluster migration Deploy to a platform using Tekton, GitLab, and ArgoCD Who this book is for This book is for anyone interested in DevOps, containerization, and going beyond basic Kubernetes cluster deployments. DevOps engineers, developers, and system administrators looking to enhance their IT career paths will also find this book helpful. Although some prior experience with Docker and Kubernetes is recommended, this book includes a Kubernetes bootcamp that provides a description of Kubernetes objects to help you if you are new to the topic or need a refresher.

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the kubernetes book pdf: Extending Kubernetes Onur Yilmaz, 2021 Rely on this comprehensive guide to understand the extension patterns and discover the extension plugins for Kubernetes. In this book, state-of-the-art extension patterns and extension points of Kubernetes are covered in depth with real-life use cases and examples. There are comprehensive discussions in the text on all possible aspects of Kubernetes, starting from end-user to the fully-automated controller development. The book focuses on creating applications that work on Kubernetes and also interact and operate Kubernetes itself. The book starts with a recap of Kubernetes, its rich configuration options, extension patterns, and points. The journey of extending Kubernetes starts with the CLI tool plugins. By the end of this section, you will be able to create and manage kubectl plugins. Then, the

API access plugins with authentication and authorization webhooks are presented. In this section, you will learn how to extend and interfere with the API flow of Kubernetes. You then move on to learn how to extend Kubernetes API with new resources and controllers. You will make Kubernetes API work for you by creating a Kubernetes operator. Extensions for Kubernetes schedulers are covered to create a custom scheduler and run it side-by-side with the default scheduler. Finally, the last extension points will be discussed for the infrastructure, such as networking or storage. At the end of the text, you will learn the upcoming extension points. This book is designed to cover all the extension points of Kubernetes with state-of-the-art implementations. This book is intended for those who wish to understand Kubernetes in depth and go further by making Kubernetes work for their custom requirements. By the end of this book, readers with a cloud-native mindset will broaden their vision to create future-proof applications. Rather than focus on overwhelming theoretical information and YAML files for Kubernetes resources, readers are provided with the philosophy behind Kubernetes extensions. With real-life examples and hands-on development steps, you will be more confident in working with Kubernetes. You will: Know the Kubernetes extension patterns and available extension points Be familiar with the philosophy behind Kubernetes extensions and how they should be integrated into the clusters Design Kubernetes extensions and make Kubernetes work for you Develop, deploy, and operate plugins for Kubernetes ranging from the CLI tool to custom resources, schedulers, infrastructure, and more Study real-life use cases for extending Kubernetes with code examples.

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the kubernetes book pdf: Programming Kubernetes Michael Hausenblas, Stefan Schimanski, 2019-07-18 If you're looking to develop native applications in Kubernetes, this is your guide. Developers and AppOps administrators will learn how to build Kubernetes-native applications that interact directly with the API server to query or update the state of resources. AWS developer advocate Michael Hausenblas and Red Hat principal software engineer Stefan Schimanski explain the characteristics of these apps and show you how to program Kubernetes to build them. You'll explore the basic building blocks of Kubernetes, including the client-go API library and custom resources. All you need to get started is a rudimentary understanding of development and system administration tools and practices, such as package management, the Go programming language, and Git. Walk through Kubernetes API basics and dive into the server's inner structure Explore Kubernetes's programming interface in Go, including Kubernetes API objects Learn about custom resources—the central extension tools used in the Kubernetes ecosystem Use tags to control Kubernetes code generators for custom resources Write custom controllers and operators and make them production ready Extend the Kubernetes API surface by implementing a custom API server

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with Spring and pick up pro tips for monitoring and managing your microservices. What's inside Deploy enterprise Java applications on Kubernetes Develop applications using the Quarkus runtime framework Compile natively using GraalVM for blazing speed Take advantage of MicroProfile specifications About the reader For intermediate Java developers comfortable with Java EE, Jakarta EE, or Spring. Some experience with Docker and Kubernetes required. About the author John Clingan is a senior principal product manager at Red Hat, where he works on enterprise Java standards and Quarkus. Ken Finnigan is a senior principal software engineer at Workday, previously at Red Hat working on Quarkus. Table of Contents PART 1 INTRODUCTION 1 Introduction to Quarkus, MicroProfile, and Kubernetes 2 Your first Quarkus application PART 2 DEVELOPING MICROSERVICES 3 Configuring microservices 4 Database access with Panache 5 Clients for consuming other microservices 6 Application health 7 Resilience strategies 8 Reactive in an imperative world 9 Developing Spring microservices with Quarkus PART 3 OBSERVABILITY, API DEFINITION, AND SECURITY OF MICROSERVICES 10 Capturing metrics 11 Tracing microservices 12 API visualization 13 Securing a microservice

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infrastructureWho this book is for This book is for cloud infrastructure experts, DevOps engineers, site reliability engineers, and engineering managers looking to design and operate Kubernetes infrastructure for production. Basic knowledge of Kubernetes, Terraform, Ansible, Linux, and AWS is needed to get the most out of this book.

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