

# Kubernetes Microservices With Docker

Bootstrapping Microservices with Docker, Kubernetes, and Terraform Hands-On Docker for Microservices with Python Microservices with Docker on Microsoft Azure (includes Content Update Program) Accelerating Development Velocity Using Docker Learn Microservices - ASP.NET Core and Docker Building Microservices Building Server-side and Microservices with Go Bootstrapping Microservices, Second Edition Microservices and Containers Hands-On Cloud-Native Microservices with Jakarta EE Microservices with Spring Boot and Spring Cloud Playing with Java Microservices on Kubernetes and OpenShift Microservices and Containers Kubernetes Microservices with Docker Bootstrapping Microservices with Docker, Kubernetes, and Terraform Building Microservices with Go Hands-On Microservices with Spring Boot and Spring Cloud Microservices Deployment Cookbook Microservices with Spring Boot and Spring Cloud Deploying Machine Learning Models as Microservices Using Docker Ashley Davis Jaime Buelta Boris Scholl Kinnary Jangla Arnaud Weil Ted Beacon Dušan Stojanović Ashley Davis Parminder Singh Kocher Luigi Fugaro Magnus Larsson Nebrass Lamouchi Parminder Singh Kocher Deepak Vohra Ashley Davis Nic Jackson Magnus Larsson Vikram Murugesan Magnus Larsson Hollin Wilkins Bootstrapping Microservices with Docker, Kubernetes, and Terraform Hands-On Docker for Microservices with Python Microservices with Docker on Microsoft Azure (includes Content Update Program) Accelerating Development Velocity Using Docker Learn Microservices - ASP.NET Core and Docker Building Microservices Building Server-side and Microservices with Go Bootstrapping Microservices, Second Edition Microservices and Containers Hands-On Cloud-Native Microservices with Jakarta EE Microservices with Spring Boot and Spring Cloud Playing with Java Microservices on Kubernetes and OpenShift Microservices and Containers Kubernetes Microservices with Docker Bootstrapping Microservices with Docker, Kubernetes, and Terraform Building Microservices with Go Hands-On Microservices with Spring Boot and Spring Cloud Microservices Deployment Cookbook Microservices with Spring Boot and Spring Cloud Deploying Machine Learning Models as Microservices Using Docker Ashley Davis Jaime Buelta Boris Scholl Kinnary Jangla Arnaud Weil Ted Beacon Dušan Stojanović Ashley Davis Parminder Singh Kocher Luigi Fugaro Magnus Larsson Nebrass Lamouchi

Parminder Singh Kocher Deepak Vohra Ashley Davis Nic Jackson Magnus Larsson Vikram Murugesan Magnus Larsson Hollin Wilkins

summary the best way to learn microservices development is to build something bootstrapping microservices with docker kubernetes and terraform guides you from zero through to a complete microservices project including fast prototyping development and deployment you ll get your feet wet using industry standard tools as you learn and practice the practical skills you ll use for every microservices application following a true bootstrapping approach you ll begin with a simple familiar application and build up your knowledge and skills as you create and deploy a real microservices project purchase of the print book includes a free ebook in pdf kindle and epub formats from manning publications about the technology taking microservices from proof of concept to production is a complex multi step operation relying on tools like docker terraform and kubernetes for packaging and deployment the best way to learn the process is to build a project from the ground up and that s exactly what you ll do with this book about the book in bootstrapping microservices with docker kubernetes and terraform author ashley davis lays out a comprehensive approach to building microservices you ll start with a simple design and work layer by layer until you ve created your own video streaming application as you go you ll learn to configure cloud infrastructure with terraform package microservices using docker and deploy your finished project to a kubernetes cluster what s inside developing and testing microservices applications working with cloud providers applying automated testing implementing infrastructure as code and setting up a continuous delivery pipeline monitoring managing and troubleshooting about the reader examples are in javascript no experience with microservices kubernetes terraform or docker required about the author ashley davis is a software developer entrepreneur stock trader and the author of manning s data wrangling with javascript table of contents 1 why microservices 2 creating your first microservice 3 publishing your first microservice 4 data management for microservices 5 communication between microservices 6 creating your production environment 7 getting to continuous delivery 8 automated testing for microservices 9 exploring flixtube 10 healthy microservices 11 pathways to scalability

a step by step guide to building microservices using python and docker along with managing and orchestrating them with kubernetes key featureslearn to use docker containers to create operate and deploy your microservicescreate workflows to manage independent deployments on coordinating services using ci and gitops through github travis ci and fluxdevelop a rest microservice in python using the flask framework and

postgres databasebook description microservices architecture helps create complex systems with multiple interconnected services that can be maintained by independent teams working in parallel this book guides you on how to develop these complex systems with the help of containers you'll start by learning to design an efficient strategy for migrating a legacy monolithic system to microservices you'll build a restful microservice with python and learn how to encapsulate the code for the services into a container using docker while developing the services you'll understand how to use tools such as github and travis ci to ensure continuous delivery cd and continuous integration ci as the systems become complex and grow in size you'll be introduced to kubernetes and explore how to orchestrate a system of containers while managing multiple services next you'll configure kubernetes clusters for production ready environments and secure them for reliable deployments in the concluding chapters you'll learn how to detect and debug critical problems with the help of logs and metrics finally you'll discover a variety of strategies for working with multiple teams dealing with different microservices for effective collaboration by the end of this book you'll be able to build production grade microservices as well as orchestrate a complex system of services using containers what you will learn discover how to design test and operate scalable microservices coordinate and deploy different services using kubernetes use docker to construct scalable and manageable applications with microservices understand how to monitor a complete system to ensure early detection of problems become well versed with migrating from an existing monolithic system to a microservice one use load balancing to ensure seamless operation between the old monolith and the new service who this book is for this book is for developers engineers or software architects who are trying to move away from traditional approaches for building complex multi service systems by adopting microservices and containers although familiarity with python programming is assumed no prior knowledge of docker is required

book content update program beyond just describing the basics this book dives into best practices every aspiring microservices developer or architect should know foreword by corey sanders partner director of program management azure microservice based applications enable unprecedented agility and ease of management and docker containers are ideal for building them microsoft azure offers all the foundational technology and higher level services you need to develop and run any microservices application microservices with docker on microsoft azure brings together essential knowledge for creating these applications from the ground up or incrementally deconstructing monolithic applications over time the authors draw on their pioneering experience helping to develop azure's microservices features and collaborating with microsoft product teams

who've relied on microservices architectures for years they illuminate the benefits and challenges of microservices development and share best practices all developers and architects should know you'll gain hands-on expertise through a detailed sample application downloadable at [github.com/flakio/flakio](https://github.com/flakio/flakio) you'll step by step walk through working with services written in node.js, go, and asp.net 5 using diverse data stores: mysql, elasticsearch, block storage. The authors guide you through using docker hub as a service registry and microsoft azure container service for cluster management and service orchestration. Coverage includes recognizing how microservices architectures are different and when they make sense, understanding docker containers in the context of microservices architectures, building, pulling, and layering docker images, working with docker volumes, containers, images, tags, and logs, using docker swarm, docker compose, and docker networks, creating docker hosts using the azure portal, azure resource manager, the command line, docker machine, or locally via docker toolbox, establishing development and devops environments to support microservices applications, making the most of docker's continuous delivery options, using azure's cluster and container orchestration capabilities to operate and scale containerized microservices applications with maximum resilience, monitoring microservices applications with azure diagnostics, visual studio application insights, and microsoft operations management suite, developing microservices applications faster and more effectively with azure service fabric. An extensive sample application demonstrating the microservices concepts discussed throughout the book is available online. In addition, this book is part of informit's exciting new content update program, which provides content updates for major technology improvements. As significant updates are made to docker and azure, sections of this book will be updated or new sections will be added to match the updates to the technologies. As updates become available, they will be delivered to you via a free edition of this book, which can be accessed with any internet connection. To learn more, visit [informit.com/cup](https://informit.com/cup). How to access the edition: follow the instructions inside to learn how to register your book to access the free edition.

Discover how a software engineer can leverage docker in order to expedite development velocity. This book focuses on the fundamental concepts this program is built upon and explores how it can help you get your services up and running inside docker containers. You'll also review tips on how to debug microservices applications that run inside docker containers. Tech companies are now developing complex softwares that are comprised of multiple services running on different platforms, and docker has become an essential part of coordinating the communication between these services and platforms. This book addresses problems caused by drifting microservices, debugging across services, inconsistent environments across

machines and coordinating development of machine learning systems between a team of developers etc accelerating development velocity using docker puts you on the path to transforming your complex systems into more efficient ones what you ll learn setup docker and employ quick solutions to road blocks review challenges associated with debugging microservices that sit behind a complex application leverage docker features to seamlessly get multiple microservices up and running debug inside a docker container review advanced use cases of docker that can help consistency of development environments who this book is for ideal for new to mid level infrastructure engineers who want to learn how to make their development environments efficient across their and cross teams or for students who aspire to learn basics of how to debug distributed systems and how to develop efficient applications

you re a developer who knows nothing to microservices which is fine except that you need to start coding your next microservices based application using asp net core and docker don t worry i have you covered i ve been training hundreds of developers like you during 16 years and converted my experience into this book i know from experience teaching what takes more time to learn in microservices and will spend time only where appropriate plus this book is packed with exercises which build up into a full project you develop two interdependent microservices each exposing a crud json api you publish them in a docker repository and run them in docker read this book and you can code your microservices within a week

dive into the world of building scalable efficient and robust applications with building microservices with net core and docker this expertly crafted guide is designed for software developers architects and it professionals seeking to harness the power of microservices architecture alongside the efficiency of net core and the agility of docker whether you re a seasoned net developer or new to the realm of microservices this book provides the knowledge and skills necessary to develop containerize and deploy microservices based applications with confidence starting with the fundamentals you ll explore the core concepts of microservices and net core gradually progressing to more advanced topics such as microservice design development testing and security learn how to containerize net microservices with docker orchestrate them with docker compose and kubernetes and ensure their security monitoring and logging for seamless operation building microservices with net core and docker stands out with its practical approach blending in depth tutorials best practices and real world examples by the end of this book you ll be equipped to design and deploy resilient microservices that scale effortlessly adapt quickly to change and meet the demands of modern software development embrace the microservices

revolution and elevate your net applications to new heights

develop and deploy efficient server side applications and microservice architectures key features extensive examples of the go programming language and rest concepts includes graphical illustrations and visual explanation of the microservice architecture graphs and visual explanation for docker and kubernetes commands description building server side and microservices with go teaches you the fundamentals of go programming languages rest server applications and microservices you can develop efficient server side applications and use modern development concepts such as microservices after reading this book we will create simple server side applications and add new features as and when a new topic is covered we will begin with the fundamentals of go programming languages which will create simple server side applications during development a layered design will be introduced with each application layer serving a specific purpose we will introduce you to the microservice concept and it is further divided into a couple of smaller microservices finally we ll look at how to use docker and kubernetes to deploy and scale microservices after reading this book we will be able to successfully develop monolithic and microservice applications and identify when one approach is more appropriate than another this book can also help improve existing applications it is a perfect handy guide to build proficiency with docker and kubernetes what you will learn basics of go programming language data types structures loops functions concurrency etc rest concept development and implementation introduction to layered server side application designs and key roles postgresql database design crud operations and queries introduction to microservices common practices and advantages and disadvantages of microservices microservices development with go and how to break monolithic applications into microservices understanding protocol buffers and message queuing protocols for microservice communications who this book is for this book is intended for backend developers software architects and students interested in learning about the go programming language rest server applications and microservices knowing fundamental programming concepts would be an advantage but not essential table of contents 1 fundamentals of go programming language 2 rest server applications 3 http layer and handler 4 core layer 5 data layer and database 6 microservices 7 microservices in go 8 microservice communication 9 deployment and scaling

build a microservices application from scratch using industry standard tools and battle tested best practices the best way to learn microservices development is to build something bootstrapping microservices with docker kubernetes github actions and terraform second edition guides you from

zero through to a complete microservices project including fast prototyping development and deployment in bootstrapping microservices second edition you'll get hands on experience with microservices development skills like creating configuring and running a microservice with node.js building and publishing a microservice using docker applying automated testing running a microservices application in development with docker compose deploying microservices to a production kubernetes cluster implementing infrastructure as code and setting up a continuous delivery pipeline monitoring managing and troubleshooting bootstrapping microservices with docker kubernetes github action and terraform has helped thousands of developers create their first microservices applications this fully revised second edition introduces the industry standard tools and practical skills you'll use for every microservices application author ashley davis's friendly advice and guidance helps cut down the learning curve for docker terraform and kubernetes showing you just what you need to know to start building about the technology taking a microservices application from proof of concept to production requires many steps and a host of tools like kubernetes terraform and github actions but where do you start with clear practical introductions to each concept and tool this book guides you hands on through designing and building your first microservices application about the book bootstrapping microservices second edition is your microservices mentor it teaches you to use industry standard tools to create a working video streaming application from the ground up you'll learn the pillars of cloud native development including terraform for configuration docker for packaging and a basic kubernetes deployment plus this second edition includes coverage of github actions continuous delivery and infrastructure as code what's inside deploying microservices to kubernetes automated testing and continuous delivery monitoring managing and troubleshooting about the reader examples are in javascript and node no experience with microservices required about the author ashley davis is a software craftsman entrepreneur and author with over 25 years of experience in software development from coding to managing teams to founding companies

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discover how cloud native microservice architecture helps you to build dynamically scalable applications by using the most widely used and adopted runtime environments key features build robust cloud native applications using a variety of tools understand how to configure both amazon services aws and docker clouds for high availability explore common design patterns used in building and deploying microservices architecture book

description businesses today are evolving rapidly and developers now face the challenge of building applications that are resilient flexible and native to the cloud to achieve this you'll need to be aware of the environment tools and resources that you're coding against the book will begin by introducing you to cloud native architecture and simplifying the major concepts you'll learn to build microservices in Jakarta EE using MicroProfile with Thorntail and Narayana. Then you'll delve into cloud native application patterns understanding the MicroProfile specification and the implementation testing of microservices as you progress further you'll focus on continuous integration and continuous delivery in addition to learning how to Dockerize your services you'll also cover concepts and techniques relating to security monitoring and troubleshooting problems that might occur with applications after you've written them by the end of this book you will be equipped with the skills you need to build highly resilient applications using cloud native microservice architecture what you will learn integrate reactive principles in MicroProfile microservices architecture explore the 12 factors app paradigm and its implications get the best out of Java versions 8 and 9 to implement a microservice based on Thorntail understand what OpenShift is and why it is so important for an elastic architecture build a Linux container image using Docker and scale the application using Kubernetes implement various patterns such as circuit breaker and bulkheads get to grips with the DevOps methodology using continuous integration CI and continuous deployment CD who this book is for this book is for developers with basic knowledge of Java EE and HTTP based application principles who want to learn how to build test and scale Java EE microservices no prior experience of writing microservices in Java EE is required

a step by step guide to creating and deploying production quality microservices based applications key features build cloud native production ready microservices with this comprehensively updated guide understand the challenges of building large scale microservice architectures learn how to get the best out of Spring Cloud Kubernetes and Istio in combination book description with this book you'll learn how to efficiently build and deploy microservices this new edition has been updated for the most recent versions of Spring Java Kubernetes and Istio demonstrating faster and simpler handling of Spring Boot local Kubernetes clusters and Istio installation the expanded scope includes native compilation of Spring based microservices support for Mac and Windows with WSL2 and an introduction to Helm 3 for packaging and deployment a revamped security chapter now follows the OAuth 2.1 specification and makes use of the newly launched Spring Authorization Server from the Spring team starting with a set of simple cooperating microservices you'll add persistence and resilience make your microservices reactive and document their APIs using OpenAPI you'll understand how fundamental design patterns are applied to add important functionality such as service discovery with Netflix Eureka and Edge

servers with spring cloud gateway you ll learn how to deploy your microservices using kubernetes and adopt istio you ll explore centralized log management using the elasticsearch fluentd and kibana efk stack and monitor microservices using prometheus and grafana by the end of this book you ll be confident in building microservices that are scalable and robust using spring boot and spring cloud what you will learnbuild reactive microservices using spring bootdevelop resilient and scalable microservices using spring clouduse oauth 2 1 oidc and spring security to protect public apisimplement docker to bridge the gap between development testing and productiondeploy and manage microservices with kubernetesapply istio for improved security observability and traffic managementwrite and run automated microservice tests with junit testcontainers gradle and bashwho this book is for if you are a java or spring boot developer who wants to learn how to build microservice landscapes from scratch this book is for you no familiarity with microservices architecture is required

playing with java microservices on kubernetes and openshift will teach you how to build and design microservices using java and the spring platform this book covers topics related to creating java microservices and deploy them to kubernetes and openshift traditionally java developers have been used to developing large complex monolithic applications the experience of developing and deploying monoliths has been always slow and painful this book will help java developers to quickly get started with the features and the concerns of the microservices architecture it will introduce docker kubernetes and openshift to help them deploying their microservices the book is written for java developers who wants to build microservices using the spring boot cloud stack and who wants to deploy them to kubernetes and openshift you will be guided on how to install the appropriate tools to work properly for those who are new to enterprise development using spring boot you will be introduced to its core principles and main features thru a deep step by step tutorial on many components for experts this book offers some recipes that illustrate how to split monoliths and implement microservices and deploy them as containers to kubernetes and openshift the following are some of the key challenges that we will address in this book introducing spring boot cloud for beginners splitting a monolith using the domain driven design approach implementing the cloud microservices patterns rethinking the deployment process introducing containerization docker kubernetes and openshift by the end of reading this book you will have practical hands on experience of building microservices using spring boot cloud and you will master deploying them as containers to kubernetes and openshift

transition to microservices and devops to transform your software development effectiveness thanks to the tech sector's latest game-changing innovations: the internet of things, IoT, software-enabled networking and software as a service (SaaS) to name a few. There is now a seemingly insatiable demand for platforms and architectures that can improve the process of application development and deployment in microservices and containers. Longtime systems architect and engineering team leader Parminder Kocher analyzes two of the hottest new technology trends: microservices and containers together. As Kocher demonstrates, microservices and Docker containers can bring unprecedented agility and scalability to application development and deployment, especially in large, complex projects where speed is crucial but small errors can be disastrous. Learn how to leverage microservices and Docker to drive modular architectural design, on-demand scalability, application performance and reliability, time to market, code reuse and exponential improvements in DevOps effectiveness. Kocher offers detailed guidance and a complete roadmap for transitioning from monolithic architectures as well as an in-depth case study that walks the reader through the migration of an enterprise-class SOA system. Understand how microservices enable you to organize applications into standalone components that are easier to manage, update and scale. Decide whether microservices and containers are worth your investment and manage the organizational learning curve associated with them. Apply best practices for interprocess communication among microservices. Migrate monolithic systems in an orderly fashion. Understand Docker containers, installation and interfaces. Network, orchestrate and manage Docker containers effectively. Use Docker to maximize scalability in microservices-based applications. Apply your learning with an in-depth hands-on case study. Whether you are a software architect, developer or systems professional looking to move on from older approaches or a manager trying to maximize the business value of these technologies, microservices and containers will be an invaluable addition to your library. Register your product at [informit.com](http://informit.com) to register for convenient access to downloads, updates and/or corrections as they become available.

Start using Kubernetes in complex big data and enterprise applications including Docker containers. Starting with installing Kubernetes on a single node, the book introduces Kubernetes with a simple "hello" example and discusses using environment variables in Kubernetes. Next, Kubernetes microservices with Docker discusses using Kubernetes with all major groups of technologies such as relational databases, NoSQL databases and in the Apache Hadoop ecosystem. The book concludes with using multi-container pods and installing Kubernetes on a multi-node cluster. This is a concise but clear introduction to containers, Docker and Kubernetes using simple real-world examples to pass on the core concepts via repetition and is a very

useful enabler 10 10 dave hay mbcs citp review for bcs the chartered institute for it bcs org content conwebdoc 58512 what you will learn install kubernetes on a single node set environment variables create multi container pods using docker use volumes use kubernetes with the apache hadoop ecosystem nosql databases and rdbmss install kubernetes on a multi node cluster who this book is for application developers including apache hadoop developers database developers and nosql developers

this book lays out a comprehensive approach to building microservices youll start with a simple design and work layer by layer until youve created your own video streaming application as you go youll learn to configure cloud infrastructure with terraform package microservices using docker and deploy your finished project to a kubernetes cluster

your one stop guide to the common patterns and practices showing you how to apply these using the go programming language about this book this short concise and practical guide is packed with real world examples of building microservices with go it is easy to read and will benefit smaller teams who want to extend the functionality of their existing systems using this practical approach will save your money in terms of maintaining a monolithic architecture and demonstrate capabilities in ease of use who this book is for you should have a working knowledge of programming in go including writing and compiling basic applications however no knowledge of restful architecture microservices or web services is expected if you are looking to apply techniques to your own projects taking your first steps into microservice architecture this book is for you what you will learn plan a microservice architecture and design a microservice write a microservice with a restful api and a database understand the common idioms and common patterns in microservices architecture leverage tools and automation that helps microservices become horizontally scalable get a grounding in containerization with docker and docker compose which will greatly accelerate your development lifecycle manage and secure microservices at scale with monitoring logging service discovery and automation test microservices and integrate api tests in go in detail microservice architecture is sweeping the world as the de facto pattern to build web based applications golang is a language particularly well suited to building them its strong community encouragement of idiomatic style and statically linked binary artifacts make integrating it with other technologies and managing microservices at scale consistent and intuitive this book will teach you the common patterns and practices showing you how to apply these using the go programming language it will teach you the fundamental concepts of architectural design and restful communication and show you patterns that

provide manageable code that is supportable in development and at scale in production we will provide you with examples on how to put these concepts and patterns into practice with go whether you are planning a new application or working in an existing monolith this book will explain and illustrate with practical examples how teams of all sizes can start solving problems with microservices it will help you understand docker and docker compose and how it can be used to isolate microservice dependencies and build environments we finish off by showing you various techniques to monitor test and secure your microservices by the end you will know the benefits of system resilience of a microservice and the advantages of go stack style and approach the step by step tutorial focuses on building microservices each chapter expands upon the previous one teaching you the main skills and techniques required to be a successful microservice practitioner

apply microservices patterns to build resilient and scalable distributed systems key features understand the challenges of building large scale microservice landscapes build cloud native production ready microservices with this comprehensive guide discover how to get the best out of spring cloud kubernetes and istio when used together book descriptionmicroservices architecture allows developers to build and maintain applications with ease and enterprises are rapidly adopting it to build software using spring boot as their default framework with this book you ll learn how to efficiently build and deploy microservices using spring boot this microservices book will take you through tried and tested approaches to building distributed systems and implementing microservices architecture in your organization starting with a set of simple cooperating microservices developed using spring boot you ll learn how you can add functionalities such as persistence make your microservices reactive and describe their apis using swagger openapi as you advance you ll understand how to add different services from spring cloud to your microservice system the book also demonstrates how to deploy your microservices using kubernetes and manage them with istio for improved security and traffic management finally you ll explore centralized log management using the efk stack and monitor microservices using prometheus and grafana by the end of this book you ll be able to build microservices that are scalable and robust using spring boot and spring cloud what you will learn build reactive microservices using spring boot develop resilient and scalable microservices using spring cloud use oauth 2 0 oidc and spring security to protect public apis implement docker to bridge the gap between development testing and production deploy and manage microservices using kubernetes apply istio for improved security observability and traffic management who this book is for this book is for java and spring developers and architects who want to learn how to break up their existing monoliths into microservices and deploy them either on premises or in the cloud using kubernetes as a container orchestrator and

istio as a service mesh no familiarity with microservices architecture is required to get started with this book

master over 60 recipes to help you deliver complete scalable microservice based solutions and see the improved business results immediately about this book adopt microservices based architecture and deploy it at scale build your complete microservice architecture using different recipes for different solutions identify specific tools for specific scenarios and deliver immediate business results correlate use cases and adopt them in your team and organization who this book is for this book is for developers ops and devops professionals who would like to put microservices to work and improve products services and operations those looking to build and deploy microservices will find this book useful as well as managers and people at cxo level looking to adopt microservices in their organization prior knowledge of java is expected no prior knowledge of microservices is assumed what you will learn build microservices using spring boot wildfly swarm dropwizard and sparkjava containerize your microservice using docker deploy microservices using mesos marathon and kubernetes implement service discovery and load balancing using zookeeper consul and nginx monitor microservices using graphite and grafana write stream programs with kafka streams and spark aggregate and manage logs using kafka get introduced to dc os docker swarm and yarn in detail this book will help any team or organization understand deploy and manage microservices at scale it is driven by a sample application helping you gradually build a complete microservice based ecosystem rather than just focusing on writing a microservice this book addresses various other microservice related solutions deployments clustering load balancing logging streaming and monitoring the initial chapters offer insights into how web and enterprise apps can be migrated to scalable microservices moving on you ll see how to dockerize your application so that it is ready to be shipped and deployed we will look at how to deploy microservices on mesos and marathon and will also deploy microservices on kubernetes next you will implement service discovery and load balancing for your microservices we ll also show you how to build asynchronous streaming systems using kafka streams and apache spark finally we wind up by aggregating your logs in kafka creating your own metrics and monitoring the metrics for the microservice style and approach this book follows a recipe driven approach and shows you how to plug and play with all the various pieces putting them together to build a complete scalable microservice ecosystem you do not need to study the chapters in order as you can directly refer to the content you need for your situation

2025 edition create and deploy production grade microservices based applications with this edition fully updated to the latest versions of spring boot

java and spring cloud key features build cloud native production ready microservices and stay ahead of the curve understand the challenges of building large scale microservice architectures learn how to get the best out of the latest updates including java spring boot spring cloud kubernetes and istio purchase of the print or kindle book includes a free pdf ebook book description do you want to build and deploy microservices but are unsure where to begin check out the fully updated 2025 edition of microservices with spring boot and spring cloud drawing from magnus decades of experience you'll start with simple microservices and progress to complex distributed applications learning essential functionality and deploying microservices using kubernetes and istio along the way this book covers java 24 spring boot 3.5 and spring cloud 2025 featuring updated code examples and replacing deprecated apis you'll get a clear understanding of spring's ahead of time aot module observability distributed tracing and helm for kubernetes packaging the chapters show you how to use docker compose to run microservices with databases and messaging services and deploy microservices on kubernetes with istio you'll also explore persistence resilience reactive microservices and api documentation with openapi as well as learn service discovery with netflix eureka edge servers with spring cloud gateway and monitoring with prometheus grafana and the efk stack by the end of this book you'll be able to confidently build scalable microservices using spring boot and spring cloud what you will learn build reactive microservices using spring boot develop resilient and scalable microservices using spring cloud use oauth and spring security to protect public apis implement docker to bridge the gap between development testing and production deploy and manage microservices with kubernetes apply istio for improved security observability and traffic management write and run automated microservice tests with junit testcontainers gradle and bash use spring aot and graalvm to compile your microservices into native executables utilize micrometer for distributed tracing who this book is for if you're a java or spring boot developer learning how to build microservice landscapes from scratch then this book is for you prior experience in building apps with java or spring boot will help you get started with this book

modern applications running in the cloud often rely on rest based microservices architectures by using docker containers docker enables your applications to communicate between one another and to compose and scale various components data scientists use these techniques to efficiently scale their machine learning models to production applications this video teaches you how to deploy machine learning models behind a rest api to serve low latency requests from applications without using a spark cluster in the process you'll learn how to export models trained in sparkml how to work with docker a convenient way to build deploy and ship application code for microservices and how a model scoring service should support

single on demand predictions and bulk predictions learners should have basic familiarity with the following scala or python hadoop spark or pandas sbt or maven cloud platforms like amazon services bash docker and rest resource description page

Eventually, **Kubernetes Microservices With Docker** will very discover a extra experience and success by spending more cash. nevertheless when? realize you resign yourself to that you require to acquire those all needs bearing in mind having significantly cash? Why dont you try to get something basic in the beginning? Thats something that will guide you to comprehend even more Kubernetes Microservices With Dockerroughly speaking the globe, experience, some places, next history, amusement, and a lot more? It is your completely Kubernetes Microservices With Dockerown period to operate reviewing habit. in the middle of guides you could enjoy now is **Kubernetes Microservices With Docker** below.

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## Introduction

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