

1. Record Nr.	UNINA9910585781903321
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Titolo	Kubernetes application developer : develop microservices and design a software solution on the cloud // Prateek Khushalani
Pubbl/distr/stampa	New York, New York : , : Apress L. P., , [2022] ©2022
ISBN	1-4842-8032-6
Descrizione fisica	1 online resource (xiii, 164 pages) : illustrations
Disciplina	005.3
Soggetti	Application software - Development - Computer programs
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Intro -- Table of Contents -- About the Author -- About the Technical Reviewer -- Introduction -- Chapter 1: What Is Cloud Computing? -- What Is Kubernetes? -- Kubernetes Flavors -- A Bird's-eye View of the Kubernetes Architecture -- Setting up a K8s Cluster -- Common CLI Commands -- Case 1 -- Case 2 -- Case 3 -- Summary -- Chapter 2: Creating Applications on Kubernetes -- Create an Apache HTTP Server -- Create a Java Tomcat WAR-based Server -- Create a gRPC Server -- Differences in Creating Applications for Kubernetes -- State of a Pod -- Ingress Controller -- Installation Steps -- Access an Application via Ingress Controller -- Summary -- Chapter 3: CI/CD Systems -- Overview -- Under the Hood -- Continuous Integration (CI) -- Continuous Delivery (CD) -- Continuous Deployment (CD) -- Designing Continuous Delivery vs. Continuous Deployment -- Designing a Basic Pipeline -- Creating a CI System for Testing -- Application-Specific CI -- Creating a CD System for Testing -- Adding a Simple CD System Stage -- Summary -- Chapter 4: Infrastructure as Code and Service Mesh -- Overview -- IaC Solutions -- Working with Terraform -- State Management -- Service Mesh -- Summary -- Chapter 5: Security and Monitoring -- Traditional Applications -- Cloud-Based Applications -- Security in Kubernetes -- Cluster-Level Practices -- Version Upgrades -- Use of Namespaces -- Special Workloads -- Container Registries -- RBAC -- Network Policies -- Allow Internet Access -- Inter-Pod Communication -- Runtime Users

and Groups -- Monitoring in Kubernetes -- Setting up Prometheus --
Configuring an Application -- Summary -- Chapter 6: Building a SaaS
Solution -- Overview -- Phase Development -- Product Overview --
Authentication and Authorization -- Storage -- Computation --
Infrastructure -- Monitoring -- Backup -- Security -- Implementing
the Bookstore.

The BookInfo Application -- Setting up Istio -- Deploying
the Application -- Sidecar Magic -- Start the Application Services --
Apply Default Destination Rules -- Accessing the Application --
Summary -- Index.

Sommario/riassunto

Write efficient, smart, and optimized code for containerized applications on public and private clouds at a generic level. This book shows you how to set up microservices that are robust, scalable, and capable of running on GKE (Google Kubernetes Service), AKS (Azure Kubernetes Service), ECS (Elastic Container Service), or even on a vanilla K8S cluster. The book covers the nuts and bolts of container orchestration engines (COEs) and explains how to install and configure them. It also covers creation and deployment of a sample application on COEs.
