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Collana	The expert's voice in open source
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Soggetti	Big data Computer programming Programming languages (Electronic computers) Big Data Programming Techniques Programming Languages, Compilers, Interpreters
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Note generali	Includes index.
Nota di contenuto	Contents at a Glance; Contents; About the Author; About the Technical Reviewer; Foreword; Part I: Getting Started; Chapter 1: Installing Kubernetes Using Docker; Setting the Environment; Installing Docker; Installing Kubernetes; Starting etcd; Starting Kubernetes Master; Starting Service Proxy; Listing the Kubernetes Docker Containers; Installing kubectl; Listing Services; Listing Nodes; Testing the Kubernetes Installation; Summary; Chapter 2: Hello Kubernetes; Overview; What Is a Node?; What Is a Cluster?; What Is a Pod?; What Is a Service?; What Is a Replication Controller? What Is a Label?What Is a Selector?; What Is a Name?; What Is a Namespace?; What Is a Volume?; Why Kubernetes?; Setting the Environment; Creating an Application Imperatively; Creating a Service; Describing a Pod; Invoking the Hello-World Application; Scaling the Application; Deleting a Replication Controller; Deleting a Service; Creating an Application Declaratively; Creating a Pod Definition; Creating a Service Definition; Creating a Replication Controller Definition; Invoking the Hello-World Application; Scaling the Application; Using JSON for the Resource Definitions; Summary

Chapter 3: Using Custom Commands and Environment VariablesSetting the Environment; The ENTRYPOINT and CMD Instructions; The Command and Args Fields in a Pod Definition; Environment Variables; Using the Default ENTRYPOINT and CMD from a Docker Image; Overriding Both the ENTRYPOINT and CMD; Specifying both the Executable and the Parameters in the Command Mapping; Specifying Both the Executable and the Parameters in the Args Mapping; Summary; Part II: Relational Databases; Chapter 4: Using MySQL Database; Setting the Environment; Creating a Service; Creating a Replication Controller Listing the PodsListing Logs; Describing the Service; Starting an Interactive Shell; Starting the MySQL CLI; Creating a Database Table; Exiting the MySQL CLI and Interactive Shell; Scaling the Replicas; Deleting the Replication Controller; Summary; Chapter 5: Using PostgreSQL Database; Setting the Environment; Creating a PostgreSQL Cluster Declaratively; Creating a Service; Creating a Replication Controller; Getting the Pods; Starting an Interactive Command Shell; Starting the PostgreSQL SQL Terminal; Creating a Database Table; Exiting the Interactive Command Shell
Scaling the PostgreSQL ClusterListing the Logs; Deleting the Replication Controller; Stopping the Service; Creating a PostgreSQL Cluster Imperatively; Creating a Replication Controller; Getting the Pods; Creating a Service; Creating a Database Table; Scaling the PostgreSQL Cluster; Deleting the Replication Controller; Stopping the Service; Summary; Chapter 6: Using Oracle Database; Setting the Environment; Creating an Oracle Database Instance Imperatively; Listing Logs; Creating a Service; Scaling the Database; Deleting the Replication Controller and Service
Creating an Oracle Database Instance Declaratively

Sommario/riassunto

The book is about Kubernetes, a container cluster manager. The book discusses all aspects of using Kubernetes in applications. 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, the book 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. No other book on using Kubernetes - beyond simple introduction - is available in the market. Specifically, you'll learn the following: How to install Kubernetes on a single node How to install Kubernetes on a multi-node cluster How to set environment variables How to create a multi-container pod How to use volumes How to use Kubernetes with Apache Hadoop Ecosystem How to use Kubernetes with NoSQL Databases How to use Kubernetes with RDBMS.