

Getting Started with Google Kubernetes Engine

The best course to discover Google Kubernetes Engine

7h

Learning outcomes

- Understand how software containers work.
- Understand the architecture of Kubernetes.
- Understand the architecture of Google Cloud.
- Understand how pod networking works in Google Kubernetes Engine.
- Create and manage Kubernetes Engine clusters using the Google Cloud Console and `gcloud/kubectl` commands.

Target audience

- Application developers, Cloud Solutions Architects, DevOps Engineers, IT managers
- Individuals using Google Cloud to create new solutions or to integrate existing systems, application environments, and infrastructure with the Google Cloud.

Prerequisites

- Basic proficiency with command-line tools and Linux operating system environments, as well as Web server technologies such as Nginx
- Systems Operations experience including deploying and managing applications, either on-premises or in a public cloud environment

Course Outline

Module 1: Introduction to Google Cloud

- Use the Google Cloud Console
- Use Cloud Shell
- Define Cloud Computing
- Identify Google Cloud compute services
- Understand Regions and Zones
- Understand the Cloud Resource Hierarchy
- Administer your Google Cloud Resources

Module 2: Containers and Kubernetes in Google Cloud

- Create a Container Using Cloud Build
- Store a Container in Container Registry
- Understand the Relationship Between Kubernetes and Google Kubernetes Engine (GKE)
- Understand how to Choose Among Google Cloud Compute Platforms

Module 3: Kubernetes Architecture

- Understand the Architecture of Kubernetes: Pods, Namespaces
- Understand the Control-plane Components of Kubernetes
- Create Container Images using Cloud Build
- Store Container Images in Container Registry
- Create a Kubernetes Engine Cluster

Module 4: Introduction to Kubernetes Workloads

- The kubectl Command
- Introduction to Deployments
- Pod Networking
- Volumes Overview