

Training: Google Cloud Getting Started with Google Kubernetes Engine



TRAINING TERMS

2025-10-17 | 1 day | Kraków / Virtual Classroom
2025-11-21 | 1 day | Warszawa / Virtual Classroom
2025-12-19 | 1 day | Kraków / Virtual Classroom

TRAINING GOALS:

This course covers an introduction to Kubernetes, a software layer that sits between your applications and your hardware infrastructure. Google Kubernetes Engine (GKE) brings you Kubernetes as a managed service on Google Cloud. This course teaches the basics of GKE and how to get applications containerized and running in Google Cloud. The course covers a basic introduction to Google Cloud, an overview of containers and Kubernetes, Kubernetes architecture, and Kubernetes operations.

Course objectives

- Discuss the differences among Google Cloud compute platforms.
- Discuss the components and architecture of Kubernetes.
- Identify how Google manages Kubernetes orchestration.
- Create and manage Google Kubernetes Engine clusters by using the Google Cloud console and the `gcloud/kubectl` commands.

Audience

- Application developers, cloud solutions architects, DevOps engineers, IT managers
- Individuals who use Google Cloud to create new solutions or to integrate existing systems, application environments, and infrastructure with Google Cloud.

CONSPECT:

- Module 1 Introduction to the Course
 - Topics
 - The course introduction explains the course goals and previews each section.

- Objectives
 - Introduce the course goals and preview each section of the course.
- Module 2 Introduction to Google Cloud
 - Topics
 - Cloud computing and Google Cloud
 - Google Cloud compute offerings
 - The Google network
 - Resource management
 - Billing
 - Interacting with Google Cloud
 - Objectives
 - Identify Google Cloud services and their functions.
 - Choose the right Google Cloud services to create your own cloud solution.
 - Define the purpose of and use cases for Identity and Access Management (IAM).
 - Identify how costs can be managed in the resource hierarchy.
 - Use the Google Cloud console and Cloud Shell to create virtual machines (VMs), service accounts, and buckets.
 - Activities
 - Lab: Accessing the Google Cloud console and Cloud Shell
 - Quiz: Module quiz
- Module 3 Introduction to Containers and Kubernetes
 - Topics
 - Introduction to containers
 - Container images
 - Working with Cloud Build
 - Kubernetes
 - Google Kubernetes Engine
 - Objectives
 - Define the concept of a container and identify uses for containers.
 - Identify the purpose of and use cases for Kubernetes.
 - Outline the concept of Google Kubernetes Engine.
 - Create a container using Cloud Build.
 - Activities
 - Lab: Working with Cloud Build
 - Quiz: Module quiz
- Module 4 Kubernetes Architecture
 - Topics

- Kubernetes concepts
- The Kubernetes control plane
- Google Kubernetes Engine concepts
- Kubernetes object management
- Objectives
 - Conceptualize the Kubernetes architecture.
 - Identify how to view and manage Kubernetes objects.
 - Distinguish between Google Kubernetes Engines modes of operation.
 - Deploy a Kubernetes cluster by using GKE.
- Activities
 - Lab: Deploying GKE Autopilot clusters
 - Quiz: Module quiz
- Module 5 Kubernetes Operations
 - Topics
 - The kubectl command
 - Introspection
 - Objectives
 - Work with the kubectl command.
 - Inspect the cluster and Pods.
 - View a Pod's console output.
 - Sign in interactively to a Pod.
 - Activities
 - Lab: Deploying GKE Autopilot Clusters from Cloud Shell
 - Quiz: Module quiz
- Module 6 Course Summary
 - Topics
 - The course summary recaps the major concepts learners were introduced to during the course.
 - Objectives
 - Recap the content covered in each section of the course.

REQUIREMENTS:

- Having completed Google Cloud Fundamentals: Core Infrastructure, or having equivalent experience
- Basic proficiency with command-line tools and Linux operating system environments

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Google Cloud.

TRAINER:

Authorized Google Cloud Trainer.