

Getting Started with Google Kubernetes Engine

Course#: CA-SGKE

Duration: 1 Day

Price: 0.00

Course Description

This course will teach you how to containerize workloads in Docker containers, deploy them to Kubernetes clusters provided by Google Kubernetes Engine, and scale those workloads to handle increased traffic. You'll also learn how to continuously deploy new code in a Kubernetes cluster to provide application updates.

Objectives

At the end of the course, you will be able to:

- 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.

Audience

This class is intended for the following participants:

- Application developers, Cloud Solutions Architects, DevOps Engineers, IT managers

- Individuals using Google Cloud Platform to create new solutions or to integrate existing systems, application environments, and infrastructure with the Google Cloud Platform

Prerequisites

To get the most out of this course, participants should have:

Basic proficiency with command-line tools and Linux operating system environments, as well as

Web server

Systems Operations experience including deploying and managing applications, either on-premises or in a public cloud environment

Content

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 1: Introduction to Kubernetes
Module 2: Kubernetes Architecture
Module 3: Kubernetes Deployment with Jenkins
Module 4: Kubernetes Networking
Module 5: Kubernetes Storage
Module 6: Kubernetes Security
Module 7: Kubernetes Monitoring and Logging
Module 8: Continuous Integration and Deployment

The kubectl Command

Introduction to Deployments

Pod Networking

Volumes Overview