

Getting Started with Google Kubernetes Engine

Course 4322 – 8 Hours

Overview

In this course, each module aims to build on your ability to interact with GKE, and includes hands-on labs for you to experience functionalities first-hand. In the first module, you'll be introduced to a range of Google Cloud services and features, with a view to helping you choose the right Google Cloud services to create your own cloud solution. You'll learn about creating a container using Cloud Build, and store a container in Container Registry. You'll also compare and contrast the features of Kubernetes and Google Kubernetes Engine, also referred to as GKE. In addition to conceptualizing the Kubernetes architecture, you'll deploy a Kubernetes cluster using GKE, deploy Pods to a GKE cluster, and view and manage Kubernetes objects.

On Completion, Delegates will be able to

- Understand the difference among Google Cloud compute platforms.
- Understand the components and architecture of Kubernetes.
- Store container images in Container Registry.

Who Should Attend

- 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 of 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.



Course Contents

Introduction to Google Cloud

This module helps you start off with the right framework of concepts. After a review of fundamentals cloud computing, you will learn about how Google Cloud's resources around the world are organized into regions and zones. You'll also learn how you can organize the resources you use in Google Cloud, so that you can manage them. Finally, you'll meet the tools that let you connect to Google Cloud and allocate, change, and release resources.

Introduction to Containers and Kubernetes

In this module you will learn about software containers and their benefits are for application deployment. You'll configure and build containers. You'll also learn about the functions container that management solutions like Kubernetes provide. You'll encounter the advantages of Google Kubernetes Engine compared to building your own container-management infrastructure.

Kubernetes Architecture

In this module you'll learn the components of a Kubernetes cluster and how they work together. You'll deploy a Kubernetes cluster using Google Kubernetes Engine and deploy Pods to a GKE cluster. You'll also view and manage several very useful kinds of Kubernetes objects.

Introduction to Kubernetes Workloads

In this module you'll learn the components that are used to manage Kubernetes workloads. You'll learn about the kubectl command and creating Kubernetes workloads called deployments. You'll examine networking services within Kubernetes and the different types of Kubernetes storage abstractions.