Kubernetes in Google Cloud

Advanced 5 Steps 5 hours 21 Credits

Kubernetes is the most popular container orchestration system, and Google Kubernetes Engine was designed specifically to support managed Kubernetes deployments in Google Cloud. In this advanced-level quest, you will get hands-on practice configuring Docker images, containers, and deploying fully-fledged Kubernetes Engine applications. This quest will teach you the practical skills needed for integrating container orchestration into your own workflow. Looking for a hands-on challenge lab to demonstrate your skills and validate your knowledge? On completing this quest, finish the additional Challenge Lab at the end of the Deploy to Kubernetes in Google Cloud Quest to receive an exclusive Google Cloud digital badge.

Infrastructure Application Development Business Transformation

Prerequisites:

It is recommended that students have earned a Badge by completing the hands-on labs in the Google Cloud Essentials Quest before attempting these labs.

Quest Outline

Introduction to Docker

In this lab you will familiarize yourself with the basic Docker container environment commands. You will create, run, and debug containers, and learn to pull and push images to and from Google Container Registry.

45 minutes   Introductory   1 Credit

Kubernetes Engine: Qwik Start

Google Kubernetes Engine provides a managed environment for deploying, managing, and scaling your containerized applications using Google infrastructure. This hands-on lab shows you how deploy a containerized application with Kubernetes Engine. Watch the short video Manage Containerized Apps with Kubernetes Engine.

30 minutes   Introductory   1 Credit

Orchestrating the Cloud with Kubernetes

In this lab you will learn how to provision a complete Kubernetes cluster using Google Container Engine; deploy and manage Docker containers using kubectl; and break an application into microservices using Kubernetes' Deployments and Services.

1 hour 15 minutes   Fundamental   5 Credits

Managing Deployments Using Kubernetes Engine

Dev Ops best practices make use of multiple deployments to manage application deployment scenarios. This lab provides practice in scaling and managing containers to accomplish common scenarios where multiple heterogeneous deployments are used.

1 hour   Advanced   7 Credits

Continuous Delivery with Jenkins in Kubernetes Engine

In this lab you will deploy and completely configure a continuous delivery pipeline using Jenkins running on Kubernetes Engine and go through the dev - deploy process.

1 hour 15 minutes   Advanced   7 Credits

Quest Complete!

Congrats! You completed this quest and earned a badge. Become a cloud expert and start another.