

Create and Manage Cloud Resources

Introductory 6 Steps 5 hours 14 Credits

Earn a **skill badge** by completing the **Create and Manage Cloud Resources** quest, where you learn how to do the following: Write `gcloud` commands and use Cloud Shell, create and deploy virtual machines in Compute Engine, run containerized applications on Google Kubernetes Engine, and configure network and HTTP load balancers.

A skill badge is an exclusive digital badge issued by Google Cloud in recognition of your proficiency with Google Cloud products and services and tests your ability to apply your knowledge in an interactive hands-on environment. Complete this skill badge quest, and the final assessment challenge lab, to receive a skill badge that you can share with your network.

Infrastructure

Quest Outline

[A Tour of Qwiklabs and Google Cloud](#)

In this first hands-on lab you will access Qwiklabs and the Google Cloud Platform Console and use the basic GCP features: Projects, Resources, IAM Users, Roles, Permissions, APIs, and Cloud Shell.

30 minutes

Introductory

Free

[Creating a Virtual Machine](#)

In this hands-on lab, you'll learn how to create a Google Compute Engine virtual machine and understand zones, regions, and machine types. To preview, watch the short video [Create a Virtual Machine, GCP Essentials](#).

40 minutes

Introductory

1 Credit

[Compute Engine: Qwik Start - Windows](#)

Google Compute Engine lets you create and run virtual machines on Google infrastructure. In this lab you create a Windows Server instance in the Google Compute Engine and access it with RDP. Watch a short preview, [Launch a Windows Server Instance, GCP Essentials](#).

40 minutes

Introductory

1 Credit

[Getting Started with Cloud Shell and gcloud](#)

In this hands-on lab you will learn how to connect to computing resources hosted on Google Cloud Platform via the web. You will also learn how to use Cloud Shell and the Cloud SDK `gcloud` command. For a preview, watch the short video [Get Started with Cloud Shell, GCP Essentials](#).

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

[Set Up Network and HTTP Load Balancers](#)

In this hands-on lab, you'll learn how setup both network load balancers and HTTP load balancers for your application running in Compute Engine virtual machines.

1 hour

Fundamental

5 Credits

[Create and Manage Cloud Resources: Challenge Lab](#)

This challenge lab tests your skills and knowledge from the labs in the **Create and Manage Cloud Resources** quest. **You should be familiar with the content of the labs before attempting this lab.**

1 hour

Fundamental

5 Credits

Quest Complete!

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

