

# Google Cloud Essentials

Introductory 5 Steps 4 hours 9 Credits

In this introductory-level Quest, you will get hands-on practice with the Google Cloud's fundamental tools and services. Google Cloud Essentials is the recommended first Quest for the Google Cloud learner - you will come in with little or no prior cloud knowledge, and come out with practical experience that you can apply to your first Google Cloud project. From writing Cloud Shell commands and deploying your first virtual machine, to running applications on Kubernetes Engine or with load balancing, Google Cloud Essentials is a prime introduction to the platform's basic features. [1-minute videos walk you through key concepts for each lab.](#)

## Prerequisites:

This Quest assumes little to no prior knowledge in cloud computing or with Google Cloud. It is expected that students have an information technology or computing background, and have some hands-on familiarity with administering computing systems. Prior work with shell environments / command line interfaces will be helpful for completing the labs in this series.

## 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.

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|------------|--------------|------|
| 30 minutes | Introductory | Free |
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### [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](#).

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| 40 minutes | Introductory | 1 Credit |
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### [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](#).

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| 40 minutes | Introductory | 1 Credit |
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### [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](#).

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| 45 minutes | Introductory | 1 Credit |
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## [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

## Quest Complete!

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

