Google Cloud Fundamentals: Core Infrastructure

Welcome
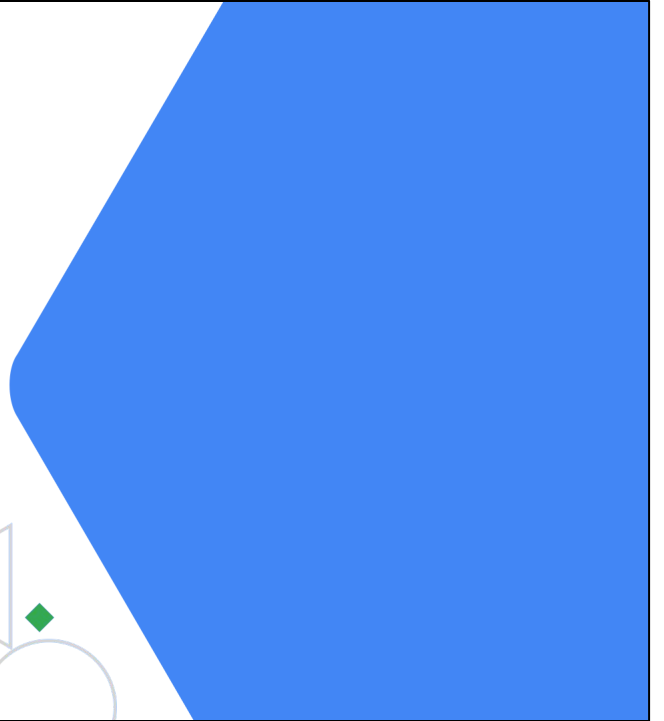
Facilities

Parking	Facilities	Food

Course etiquette

Please silence your phone and take calls outside.

Recording this class is prohibited.

Ask questions interactively or via chat (online).

Google Cloud

Learn how to ...

Identify the purpose and value of Google Cloud products and services.

Interact with Google Cloud services.

Use Google Cloud application deployment environments.

Use Google Cloud storage options.

Do automated deployment, monitoring, and data analysis on Google Cloud.

Google Cloud

This 1 day instructor-led class provides an overview of Google Cloud. Through a combination of presentations and hands-on labs, participants learn the value of Google Cloud and how cloud solutions factor into business strategies.

The intended target audience consists of solutions developers, systems operations professionals, and solution architects planning to deploy applications and create application environments on Google Cloud. The course will also help business decision makers evaluating Google Cloud.

The course has no prerequisites, although familiarity with application development, Linux operating systems, systems operations, and data analytics/machine learning is helpful in understanding the technologies covered.

What's next in the Infrastructure modernization track for Cloud Engineers?

Infrastructure modernization

This track is designed for IT professionals who are responsible for implementing, deploying, migrating, and maintaining applications in the cloud.

1. Google Cloud Fundamentals: Core Infrastructure

2. Architecting with Google Compute Engine ⬅

3. Getting Started with Google Kubernetes Engine

Google Cloud

What's next in the Infrastructure modernization track for Cloud Architects?

Infrastructure modernization

This track is designed for IT professionals who are responsible for implementing, deploying, migrating, and maintaining applications in the cloud.

1 Google Cloud Fundamentals: Core Infrastructure

2 Architecting with Google Compute Engine

3 Architecting with Google Cloud: Design and Process

4 Getting Started with Google Kubernetes Engine

Google Cloud

What's next in the Application modernization track for Cloud Developers?

Application modernization

This track is designed for application programmers and software engineers who develop software programs in the cloud.

1. Google Cloud Fundamentals: Core Infrastructure
2. Developing Applications with Google Cloud
3. Getting Started with Google Kubernetes Engine

Google Cloud

What's next in the Application modernization track for Cloud DevOps Engineers?

Application modernization

This track is designed for application programmers and software engineers who develop software programs in the cloud.

1. Google Cloud Fundamentals: Core Infrastructure
2. Architecting with Google Cloud: Design and Process
3. Logging, Monitoring, and Observability in Google Cloud

Google Cloud

Introductions

Your instructor

- Organization
- Background
- Course goals

You

- Name
- Organization
- Job role
- Course goals

Google Cloud

Audience and prerequisites

Target audiences

- Developers, DevOps and SysOps professionals, and solution architects planning to deploy applications and environments on Google Cloud.

- Decision-makers evaluating Google Cloud.

Prerequisites and pre-work

None (although familiarity with Linux is helpful, as well as with the technologies covered).

Google Cloud

Agenda

Module		Lab
1	Introducing Google Cloud	
2	Getting Started with Google Cloud	Getting Started with Cloud Marketplace
3	Virtual Machines in the Cloud	Getting Started with Compute Engine
4	Storage in the Cloud	Getting Started with Cloud Storage and Cloud SQL
5	Containers in the Cloud	Getting Started with Google Kubernetes Engine

Google Cloud

Agenda

Module		Lab
6	**Applications in the Cloud**	Getting Started with App Engine
7	**Developing, Deploying, and Monitoring in the Cloud**	Getting Started with Deployment Manager and Cloud Monitoring
8	**Big Data and Machine Learning in the Cloud**	Getting Started with BigQuery
9	**Summary and Review**	

Google Cloud

Lab environment

For each lab, Qwiklabs offers:

- A free set of resources for a fixed amount of time
- A clean environment with permissions

QWIKLABS

Google Cloud

Qwiklabs provisions you with Google account credentials, so you can access the Google Cloud Console for each lab at no cost. Specifically, for each lab, Qwiklabs offers:

- A free set of resources for a fixed amount of time
- A clean environment with permissions

Open Qwiklabs

1 **Open an incognito window** (or private/anonymous window).

2 **Go** to the Qwiklabs URL your instructor provides.

3 **Sign In** with existing account or **Join** with new account (with email you used to register for the course).
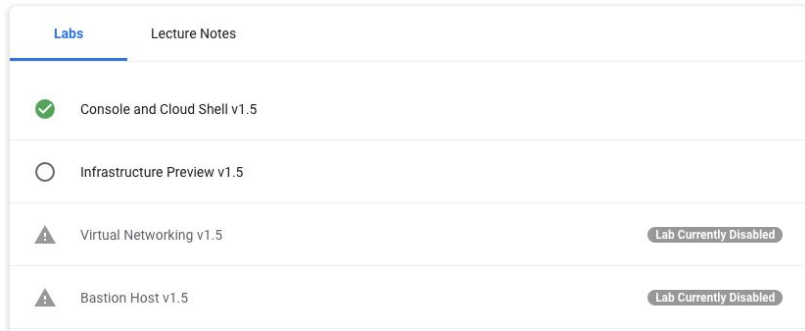
4 Launch the course from **My Learning**.

- Home
- Catalog
- My Learning
- Labs
- Courses
- Catalogs
- Classrooms
- Help
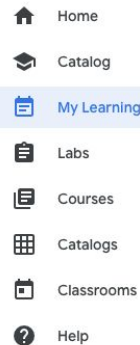
Google Cloud

Go ahead and open Qwiklabs:

1. **Open an incognito window** (or private/anonymous window). Use of an incognito browser window reduces the risk that you will accidentally do the labs using your own Google Cloud account instead of Qwiklabs.
2. **Go** to the Qwiklabs URL your instructor provides.
3. **Sign** in with an existing account or **Join** with a new account (with email you used to register for the course).
4. Launch the course from **My Learning**.

View your labs

Labs	Lecture Notes	
✅ Console and Cloud Shell v1.5		← Lab Completed
⭘ Infrastructure Preview v1.5		← Active Lab
⚠ Virtual Networking v1.5	Lab Currently Disabled	← Not yet available
⚠ Bastion Host v1.5	Lab Currently Disabled	

Do NOT launch a lab until instructed to do so!

Google Cloud

After you launch the course, you can view your labs. The lab list will indicate whether a lab is:
- Completed (by you)
- Active
- Not yet available

Your instructor will let you know when it's time to launch a lab. Once you start a lab, you won't be able to pause and restart it, so you'll need a continuous block of time to complete the work.
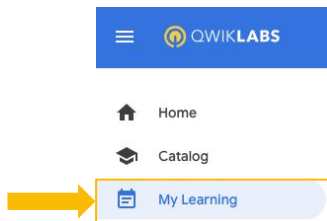
View lecture notes

Labs	**Lecture Notes**

00 Course Intro

01 Introduction to GCP

02 Virtual Networks

03 Virtual Machines

04 Cloud IAM
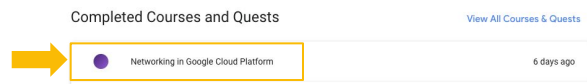
Google Cloud

End of class: Materials

1 Click on *My Learning* in the left navigation pane.

2 Select the class from the *Completed Courses* list.

Materials are available for 2 years