

Google Cloud Fundamentals: Core Infrastructure

Course Code: GCPCIN

Duration: 1 day

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

This course uses lectures, demos, and hands-on labs to give you an overview of Google Cloud products and services so that you can learn the value of Google Cloud and how to incorporate cloud-based solutions into your business strategies.

SKILLS COVERED

- Identify the purpose and value of Google Cloud products and services. Interact with Google Cloud services.
- Describe ways in which customers have used Google Cloud.
- Choose among and use application deployment environments on Google Cloud: App Engine, Google Kubernetes Engine, and Compute Engine.
- Choose among and use Google Cloud storage options: Cloud Storage, Cloud SQL, Cloud Bigtable, and Firestore.
- Make basic use of BigQuery, Google's managed data warehouse for analytics.

WHO SHOULD ATTEND?

- Individuals planning to deploy applications and create application environments on Google Cloud.
- Developers, systems operations professionals, and solution architects getting started with Google Cloud.

- Executives and business decision makers evaluating the potential of Google Cloud to address their business needs.

MODULES

Module 1: Introducing Google Cloud

- Explain the advantages of Google Cloud.
- Define the components of Google's network infrastructure, including: Points of presence, data centers, regions, and zones.
- Understand the difference between Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS).

Module 2: Getting Started with Google Cloud

- Identify the purpose of projects on Google Cloud.
- Understand the purpose of and use cases for Identity and Access Management.
- List the methods of interacting with Google Cloud.

Lab: Getting Started with Google Cloud.

- Module 3: Google Compute Engine and Networking
- Identify the purpose of and use cases for Google Compute Engine.
- Understand the basics of networking in Google Cloud.

Lab: Getting Started with Google Compute Engine.

Module 4: Google Cloud Storage Options

- Understand the purpose of and use cases for: Google Cloud Storage, Google Cloud SQL, and Google Cloud Bigtable.
- Learn how to choose between the various storage options on Google Cloud.
- Lab: Getting Started with Cloud Storage and Cloud SQL.

Module 5: Google Container Engine

- Define the concept of a container and identify uses for containers.
- Identify the purpose of and use cases for Google Container Engine and Kubernetes.
- Introduction to Hybrid and Multi-Cloud computing (Anthos).

Lab: Deploying Applications Using Google Container Engine.

Module 6: Google App Engine and Google Cloud Datastore

- Understand the purpose of and use cases for Google App Engine and Google Cloud Datastore.
- Contrast the App Engine standard environment with the App Engine flexible environment.
- Understand the purpose of and use cases for Google Cloud Endpoints.

Lab: Deploying Applications Using App Engine and Cloud Datastore.

Module 7: Deployment and Monitoring

- Understand the purpose of template-based creation and management of resources.
- Understand the purpose of integrated monitoring, alerting, and debugging.

Lab: Getting Started with Stackdriver and Deployment Manager.

Module 8: Big Data and Machine Learning in the Cloud

- Understand the purpose of and use cases for the products and services in the Google Cloud big data and machine learning platforms.
- Lab: Getting Started with BigQuery.

Module 9: Summary and Review

- Summary and Review.
- What's Next?.