Google Cloud Fundamentals - Core Infrastructure

Register Online

Schedule

Class Length: 1 Day

G2R = “Guaranteed to Run” | OLL = “Online LIVE”
ILT = “Instructor-Led-Training”

This course is not currently available on the public schedule. Please contact us using the information in the footer below to inquire about future dates or to schedule a private class.

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.

Prerequisite Comments

Familiarity with application development, systems operations, Linux operating systems, and data analytics/machine learning is helpful in understanding the technologies covered

Target Audience

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.

Course Objectives

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.

Course Outline

1 - Introducing Google Cloud Platform

Explain the advantages of Google Cloud Platform.
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).

2 - Getting Started with Google Cloud Platform

Identify the purpose of projects on Google Cloud Platform.
Understand the purpose of and use cases for Identity and Access Management.
List the methods of interacting with Google Cloud Platform.
Lab: Getting Started with Google Cloud Platform.

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 Platform.
Lab: Deploying Applications Using Google Compute Engine.

4 - Google Cloud Platform 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 Platform.
Lab: Integrating Applications with Google Cloud Storage.

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.

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.

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.

8 - Big Data and Machine Learning

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.

9 - Summary and Review

Summary and Review.
What's Next?.