

# Google Cloud Fundamentals: Core Infrastructure

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| <b>Code:</b>   | GCP-FUND                    |
| <b>Length:</b> | 1 days                      |
| <b>URL:</b>    | <a href="#">View Online</a> |

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This one-day instructor-led class provides an overview of Google Cloud products and services. Through a combination of presentations, demos, and hands-on labs, participants learn the value of Google Cloud and how to incorporate cloud-based solutions into business strategies.

## Skills Gained

This course teaches participants the following skills:

- 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: Google App Engine, Google Kubernetes Engine, and Google Compute Engine
- Choose among and use Google Cloud storage options: Google Cloud Storage, Google Cloud SQL, Google Cloud Bigtable, and Google Cloud Datastore
- Make basic use of BigQuery, Google's managed data warehouse for analytics
- Make basic use of Cloud Deployment Manager, Google's tool for creating and managing cloud resources through templates
- Make basic use of Google Stackdriver, Google's monitoring, logging, and diagnostics system

## Who Can Benefit

This class is intended for the following:

- 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.

## Prerequisites

Familiarity with the Linux command line, web servers, and text editors.

# Course Details

The course includes presentations, demonstrations, and hands-on labs.

## Course Outline

### Module 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).

### Module 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.

### Module 3: Virtual Machines and Networks in the Cloud

- Identify the purpose of and use cases for Google Compute Engine.
- Understand the various Google Cloud Platform networking and operational tools and services.
- Lab: Compute Engine

### Module 4: Storage in the Cloud

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

### Module 5: Containers in the Cloud

- Define the concept of a container and identify uses for containers.
- Identify the purpose of and use cases for Google Kubernetes Engine and Kubernetes.
- Lab: Kubernetes Engine

### Module 6: Applications in the Cloud

- Understand the purpose of and use cases for Google App Engine.
- Contrast the App Engine Standard environment with the App Engine Flexible environment.
- Understand the purpose of and use cases for Google Cloud Endpoints.
- Lab: App Engine

### Module 7: Developing, Deploying, and Monitoring in the Cloud

- Understand options for software developers to host their source code.
- Understand the purpose of template-based creation and management of resources.

- Understand the purpose of integrated monitoring, alerting, and debugging.
- Lab: Deployment Manager and Stackdriver

#### 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: BigQuery

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## Schedule (as of 3 )

| Date                        | Location             |            |                        |
|-----------------------------|----------------------|------------|------------------------|
| Oct 27, 2020 – Oct 27, 2020 | <a href="#">iMVP</a> | <b>GTR</b> | <a href="#">Enroll</a> |
| Nov 17, 2020 – Nov 17, 2020 | <a href="#">iMVP</a> |            | <a href="#">Enroll</a> |
| Dec 1, 2020 – Dec 1, 2020   | <a href="#">iMVP</a> |            | <a href="#">Enroll</a> |
| Dec 15, 2020 – Dec 15, 2020 | <a href="#">iMVP</a> |            | <a href="#">Enroll</a> |
| Dec 29, 2020 – Dec 29, 2020 | <a href="#">iMVP</a> |            | <a href="#">Enroll</a> |

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