

Training: Google Cloud

## Google Cloud Fundamentals: Core Infrastructure



#### TRANING TERMS

2026-01-12   1 day   Kraków / Virtual Classroom
2026-01-12   1 day   Warszawa / Virtual Classroom
2026-01-22   1 day   Virtual Classroom (Special offers, Discount -600 EUR
2026-02-02   1 day   Kraków / Virtual Classroom
2026-02-02   1 day   Warszawa / Virtual Classroom
2026-03-02   1 day   Kraków / Virtual Classroom
2026-03-02   1 day   Warszawa / Virtual Classroom
2026-04-13   1 day   Kraków / Virtual Classroom
2026-04-13   1 day   Warszawa / Virtual Classroom
2026-05-04   1 day   Kraków / Virtual Classroom
2026-05-04   1 day   Warszawa / Virtual Classroom
2026-06-08   1 day   Kraków / Virtual Classroom
2026-06-08   1 day   Warszawa / Virtual Classroom

## TRAINING GOALS:

This course uses lectures and labs to give you an overview of Google Cloud products and services. You learn the value of Google Cloud and how to incorporate cloud-based solutions into your business strategies.

## What you'll learn

- Identify the purpose and value of Google Cloud products and services.
- Define how infrastructure is organized and controlled in Google Cloud.
- Explain how to create basic infrastructure in Google Cloud.
- Select and use Google Cloud storage options.
- Describe the purpose and value of Google Kubernetes Engine.
- o Identify the use cases for serverless Google Cloud services.
- Explore Google Clouds Generative AI tools and best practices.

#### Who this course is for

• Individuals planning to deploy applications and create application environments on Google



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#### 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

#### **Products**

- Identity and Access Management (IAM)
- Cloud Marketplace
- Compute Engine
- Cloud Storage
- Cloud Bigtable
- Cloud SQL
- Cloud Spanner
- Firestore
- Google Kubernetes Engine
- Cloud Functions
- Cloud Run

## **CONSPECT:**

- Module 0 Introduction to the Course
  - Topics
    - The course introduction explains the course goals and previews each section.
  - Objectives
    - Introduce course objectives and preview each section of the course.
- Module 1 Introducing Google Cloud
  - Topics
    - Cloud computing overview
    - laaS and PaaS
    - The Google Cloud network
    - Environmental impact
    - Security
    - Open source ecosystems
    - Pricing and billing
  - Objectives

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- Identify the benefits of Google Cloud.
- Define the components of the Google network infrastructure, including points of presence, data centers, regions, and zones.
- Identify the difference between infrastructure as a service (laaS) and platform as a service (PaaS).
- Module 2 Resources and Access in the Cloud
  - Topics
    - Google Cloud resource hierarchy
    - IAM
    - IAM roles
    - Service accounts
    - Cloud Identity
    - Interacting with Google Cloud
  - Objectives
    - Identify the purpose of projects on Google Cloud.
    - Define the purpose of and use cases for IAM.
    - List interaction methods with Google Cloud.
    - Use Cloud Marketplace to interact with Google Cloud.
- Module 3 Virtual Machines and Networks in the Cloud
  - Topics
    - Virtual Private Cloud networking
    - Compute Engine
    - Scaling virtual machines
    - Important VPC compatibilities
    - Cloud Load Balancing
    - Cloud DNS and Cloud CDN
    - Connecting networks to Google VPC
  - Objectives
    - Explore the basics of networking in Google Cloud.
    - Identify the purpose of and use cases for Google Compute Engine.
    - Outline how Google Compute Engine can scale
    - Detail important VPC compatibilities including routing tables, firewalls and VPC peering.
    - Explore how Cloud Load Balancing functions in Google Cloud.
    - Deploy a basic infrastructure to Google Cloud
- Module 4 Storage in the Cloud
  - Topics

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- Cloud Storage
- o Cloud SQL
- Cloud Spanner
- o Firestore
- Cloud Bigtable
- Comparing storage options
- Objectives
  - Identify the purpose of and use cases for Cloud Storage.
  - Distinguish between Cloud Storage classes.
  - Distinguish between Google Cloud's Database storage options.
  - Deploy an application that uses Cloud SQL and Cloud Storage.
- Module 5 Containers in the Cloud
  - Topics
    - Introduction to containers
    - Kubernetes
    - Google Kubernetes Engine
  - Objectives
    - Define the concept of a container and identify uses for containers.
    - Identify the purpose of and use cases for Kubernetes and Google Kubernetes Engine.
- Module 6 Applications in the Cloud
  - Topics
    - o Cloud Run
    - Cloud Function
  - Objectives
    - Identify the purpose and use cases for Cloud Run
    - Describe how Cloud Functions can support application development on Google Cloud.
    - Deploy a containerized application on Cloud Run
- Module 7 Prompt Engineering
  - Topics
    - Introduction to generative AI
    - Introduction to large language models
    - Prompt engineering and recommended practices
  - Objectives
    - Define what generative AI is.
    - Explain how large language models are trained.

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- Detail the elements and types of a prompt.
- Explore recommended practices when constructing prompts.
- Module 8 Course Summary
  - Topics
    - The course summary recaps the major concepts learners were introduced to during the course.
  - Objectives
    - Summarize the content covered in each section of the course.

# **REQUIREMENTS:**

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

# Difficulty level

## **CERTIFICATE:**

The participants will obtain certificates signed by Google Cloud.

## TRAINER:

Authorized Google Cloud Platform Trainer.

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