



Architecting with Google Compute Engine

24 Hours

Overview

This three-day instructor-led class introduces participants to the comprehensive and flexible infrastructure and platform services provided by Google Cloud Platform, with a focus on Compute Engine. Through a combination of presentations, demos, and hands-on labs, participants explore and deploy solution elements, including infrastructure components such as networks, systems, and application services. This course also covers deploying practical solutions including securely interconnecting networks, customer-supplied encryption keys, security and access management, quotas and billing, and resource monitoring.

On Completion, Delegates will be able to

- Consider the entire range of Google Cloud Platform technologies in their plans
- Learn methods to develop, implement, and deploy solutions
- Distinguish between features of similar or related products and technologies
- Recognize a wide variety of solution domains, use cases, and applications
- Develop essential skills for managing and administering solutions
- Develop knowledge of solution patterns methods, technologies, and designs that are used to implement security, scalability, high availability, and other desired qualities

Who Should Attend

- Cloud Solutions Architects, DevOps Engineers
- Individuals using Google Cloud Platform to create new solutions or to integrate existing systems, application environments, and infrastructure with a focus on Google Compute Engine

Prerequisites

Completion of Google Cloud Platform Fundamentals or equivalent experience Basic proficiency with command-line tools and Linux operating system environments Systems operations experience, including deploying and managing applications, either on-premises or in a public cloud environment.

Course Contents

Part 1: Essential Google Cloud Infrastructure: Foundation

Module 1: Introduction to Google Cloud

Overview of Google Cloud

Module 2: Virtual Networks

Create VPC networks and other networking objects

Module 3: Virtual Machines

Create virtual machines using Compute Engine

Part 2: Essential Google Cloud Infrastructure: Core Services

Module 4: Identity and Access Management (IAM)

Administer Identity and Access Management for resources

Module 5: Storage and Database Services

Implement data storage services in Google Cloud

Module 6: Resource Management

Manage and examine billing of Google Cloud resources

Module 7: Resource Monitoring

Monitor resources using Google Cloud's operations suite

Part 3: Elastic Google Cloud Infrastructure: Scaling and Automation

Module 8: Interconnecting Networks

Connect your infrastructure to Google Cloud

Module 9: Load Balancing and Autoscaling

Configure load balancers and autoscaling for VM instances

Module 10: Infrastructure Automation

Automate the deployment of Google Cloud infrastructure services

Module 11: Managed Services

Leverage managed services in Google Cloud