



Architecting with Google Cloud Platform: Infrastructure

Duration: 3 Days **Course Code: GO5973**

Overview:

Develop essential skills for managing and administering solutions.

This three-day instructor-led class introduces you to the comprehensive and flexible infrastructure and platform services provided by Google Cloud Platform. Through a combination of presentations, demos, and hands-on labs, you will explore and deploy solution elements, including infrastructure components such as networks, systems and applications 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.

Target Audience:

Experienced developers who are responsible for managing big data transformations including: Cloud Solutions Architects, Systems Operations professionals, DevOps Engineers, IT managers. Individuals using Google Cloud Platform to create new solutions or to integrate existing systems, application environments, and infrastructure with the Google Cloud Platform

Objectives:

- In this course you will learn:
 - 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
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Prerequisites:

- Have completed Google Cloud Platform Fundamentals or have equivalent experience
 - Basic proficiency with command-line tools and Linux operating system environments
 - Have systems operations experience including deploying and managing applications, either on-premises or in a public cloud environment
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Content:

1. Introduction to Google Cloud Platform

- Role of the Cloud Architect
- Learn about Solution Domains as an approach to design

2. Virtual Networks

- Cloud Virtual Networks (CVN), Projects, Networks, Subnetworks, IP addresses, Routes, Firewall rules
- Subnetworks for resource management instead of physical network topology

3. Virtual Machines

- GCE, tags, VM options, vCPUs, disk options, images, and special features of persistent disks for VMs

4. Cloud IAM

- Members, roles, organizations, account administration, and service accounts

5. Resource Management

- Billing, Quotas, Labels, Names, and Cloud Resource Manager

6. Data Services

- Cloud Storage, Datastore, Bigtable, and Cloud SQL

7. Interconnecting Networks

- VPNs, Cloud Router, Cloud Interconnect, Direct Peering, and Cloud DNS

8. Infrastructure Automation

- Infrastructure automation, custom images, startup and shutdown scripts and metadata, Deployment Manager, and Cloud Launcher

9. Autoscaling

- Load Balancing, Instance Groups, and Autoscaler.

10. Resource Monitoring

- Stackdriver, Monitoring, Logging, Error Reporting, Tracing, and Debugging

11. Containers

- Containers, Google Container Engine (GKE), and Container Registry

12. Platform Security

- Learn about Google's layered security strategy that uses a multi-faceted approach to provide platform security services and benefits

13. Managed Services

- Dataproc, Dataflow, BigQuery, and Datalab

14. Application Development Infrastructure

- GAE, Cloud SDK, Dev Tools, Cloud Source Repos, Cloud Pub/Sub, Cloud Endpoints, and APIgee, Cloud Functions

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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