ARCHITECTING WITH GOOGLE CLOUD PLATFORM: INFRASTRUCTURE

Course Code: 5973

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.

What You’ll 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

Who Needs to Attend

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

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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VIRTUAL CLASSROOM LIVE  $1,995 USD  3 days

Virtual Classroom Live Outline

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

Virtual Classroom Live Labs

Module 1  
   • Lab: Console and Cloudshell

Module 2  
   • Lab: Virtual Networking.

Module 3  
   • N/A

Module 4  
   • Lab: Cloud IAM.

Module 5  
   • Lab: Lab Billing.

Module 6  
   • Lab: Cloud Storage.  
   • Lab: Cloud SQL.

Module 7  
   • Lab: VPN and Cloud Router.

Module 8  
   • Lab: Hadoop Cluster Maker.  
   • Lab: Virtual Machine.

Module 9  
   • Lab: Autoscaling.

Module 10  
   • Lab: Resource Monitoring (Stackdriver).

Module 11
Module 12
  • N/A

Module 13
  • Lab: BigQuery and Datalab.

Module 14
  • N/A

Nov 12 - 14, 2019 | 11:30 AM - 7:30 PM EST
Dec 2 - 4, 2019 | 8:30 AM - 4:30 PM EST