

# Google Cloud Fundamentals for Azure Professionals

The best course to get started on Google Cloud if you already know Azure

7h

## Learning outcomes

- Identify Google Cloud counterparts for Azure IaaS, Azure PaaS, Azure SQL, Azure Blob Storage, Azure Application Insights, and Azure Data Lake
- Configure accounts, billing, projects, networks, subnets, firewalls, VMs, disks, auto scaling, load balancing, storage, databases, IAM, and more
- Manage and monitor applications
- Explain feature and pricing model differences

## Target audience

- Individuals planning to deploy applications and create application environments on Google Cloud Platform
- Developers, systems operations professionals, and solution architects getting started with Google Cloud Platform
- Executives and business decision makers evaluating the potential of Google Cloud Platform to address their business needs

## Prerequisites

- Have basic proficiency with networking technologies like subnets and routing
- Have basic proficiency with command-line tools
- Have experience with Microsoft Azure and IIS

## Course Outline

### Module 1: Introducing Google Cloud

- What is cloud computing?
- Google Cloud Computing architectures
- The Google network
- Google Cloud Regions and Zones
- Google Cloud versus Azure regions and zones
- Open API's
- Multi-layered security approach
- Budgets and Billing

### Module 2: Getting Started with Google Cloud

- Google Cloud resource hierarchy
- Comparison to Azure resource hierarchy
- Identity and Access Management (IAM)
- IAM Roles
- Comparison to Azure AD
- Interacting with Google Cloud
- Cloud Marketplace

### Module 3: Virtual Machines in the Cloud

- Virtual Private Cloud (VPC) Network
- How Azure VNet differs from Google VPC
- Compute Engine
- Comparing Azure VM and Google Compute Engine
- Important VPC Capabilities
- How typical approaches to load-balancing in Google Cloud differ from those in Azure

### Module 4: Storage in the Cloud

- Cloud Storage
- Cloud Storage Interactions

- Comparing Azure Blob Storage with Google Cloud Storage
- Cloud Bigtable
- Cloud SQL and Cloud Spanner
- Cloud Datastore
- Comparing Azure SQL with Google Cloud's managed database services
- Comparing Storage Options

### **Module 5: Containers in the Cloud**

- Containers in the Cloud
- Kubernetes and Kubernetes Engine
- Hybrid and Multi-Cloud
- How Azure Kubernetes Service differ from GKE

### **Module 6: Applications in the Cloud**

- App Engine Standard Environment
- App Engine Flexible Environment
- Comparison to Azure App Service
- Cloud Endpoints and Apigee Edge

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

- Development in the cloud
- Deployment: Infrastructure as code
- How Cloud Deployment Manager differs from Azure Resource Manager
- Monitoring: Proactive instrumentation
- How Cloud Operations differs from Azure application Insights

### **Module 8: Big Data and Machine Learning in the Cloud**

- Google Cloud Big Data Platform
- Dataflow
- BigQuery
- How BigQuery differs from Azure Data Lake Analytics
- Pub/sub and Datalab
- How Cloud Pub/Sub differs from Azure Events Hub
- Google Cloud Machine Learning Platform
- ML APIs
- How GCP's machine-learning APIs differ from Azure's

### **Module 9: Summary and Review**

- Course Review

- The Process of migrating from Azure to Google Cloud
- Next Steps