Google Cloud Fundamentals for AWS Professionals

```
Course#:T-GCPAWS-I
Duration:1 Day
Price:0.00
```

Course Description

This course teaches AWS professionals about the core capabilities of Google Cloud in the four technology pillars: networking, compute, storage, and database. It is designed for AWS system administrators, solutions architects, and SysOps administrators who are familiar with AWS features and setup and want to gain experience configuring Google Cloud products immediately. This course uses lectures, demos, and hands-on labs to show you the similarities and differences between the two platforms and teach you about some basic tasks on Google Cloud.

Objectives

This course teaches participants the following skills:

Identify Google Cloud counterparts for Amazon VPC, subnets, routes, NACLs, IGW, Amazon EC2, Amazon EBS, auto-scaling, Elastic Load Balancing, Amazon S3, Amazon Glacier, Amazon RDS, Amazon Redshift, AWS IAM.
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.

Audience

This course is intended for the following participants:

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

Prerequisites

To get the most out of this course, participants should:

 Have basic proficiency with networking technologies like subnets and routing.
 Have basic proficiency with command-line tools.
 Students are expected to have experience with Amazon VPC, Amazon EC2 instances, and disks.
Familiarity with Amazon S3 and AWS database technologies is recommended.

Content

Course Outline

Module 1 :Introducing Google Cloud

 Explain the advantages of Google Cloud.
 Define the components of Googles network infrastructure, including: Points of presence, data centers, regions, and zones.
 Understand the difference between Infrastructure-as-a-Service
 (IaaS) and Platform-as-a-Service (PaaS).

Module 2 :Getting Started with Google Cloud

 Identify the purpose of projects on Google Cloud Platform.
 Understand how AWSs resource hierarchy differs from Google Clouds.
 Understand the purpose of and use cases for Identity and Access Management.
 Understand how AWS IAM differs from Google Cloud IAM.
 List the methods of interacting with Google Cloud Platform.
 Launch a solution using Cloud Marketplace.

Module 3 :Virtual Machines in the Cloud

Identify the purpose and use cases for Google Compute Engine.

Understand the basics of networking in Google Cloud Platform.

Understand how Amazon VPC differs from Google VPC.

Understand the similarities and differences between Amazon EC2 and Google Compute Engine.

Understand how typical approaches to load-balancing in Google

Cloud differ from those in AWS.

Deploy applications using Google Compute Engine.

Module 4 :Storage in the Cloud

Understand the purpose of and use cases for: Cloud Storage, Cloud SQL, Cloud Bigtable and Cloud Datastore.

Understand how Amazon S3 and Amazon Glacier compare to Cloud Storage.

Compare Google Clouds managed database services with Amazon RDS and Amazon Aurora.

Learn how to choose among the various storage options on Google Cloud Platform.

Load data from Cloud Storage into BigQuery, Perform a query on the data in BigQuery.

Module 5 :Containers in the Cloud

Define the concept of a container and identify uses for containers.

Identify the purpose of and use cases for Google Container Engine and Kubernetes.

Understand how Amazon Elastic Container Service (ECS) and

Amazon Elastic Kubernetes Service (EKS) differ from GKE.

Provision a Kubernetes cluster using Kubernetes Engine.

Deploy and manage Docker containers using kubectl.

Module 6 :Applications in the Cloud

Understand the purpose of and use cases for Google App Engine.

Contrast the App Engine Standard environment with the App Engine Flexible environment.

Understand how App Engine differs from Amazon Elastic Beanstalk.

Understand the purpose of and use cases for Google Cloud Endpoints.

Module 7 :Developing, Deploying and Monitoring in the Cloud

Understand options for software developers to host their source code.

Understand the purpose of template-based creation and management of resources.

Understand how Cloud Deployment Manager differs from AWS CloudFormation.

Understand the purpose of integrated monitoring, alerting, and debugging.

Understand how Google Monitoring differs from Amazon CloudWatch and AWS CloudTrail.

Create a Deployment Manager deployment.

Update a Deployment Manager deployment.

View the load on a VM instance using Google Monitoring.

Module 8 :Big Data and Machine Learning in the Cloud

Understand the purpose of and use cases for the products and services in the Google Cloud big data and machine learning platforms.

Understand how Google Cloud BigQuery differs from AWS Data Lake.

Understand how Google Cloud Pub/Sub differs from AWS Event Hubs and Service Bus.

Understand how Google Clouds machine-learning APIs differ from AWSs.

Load data into BigQuery from Cloud Storage.

Perform queries using BigQuery to gain insight into data.

Module 9 :Summary and Review

Review the products that make up Google Cloud and remember how to choose among them
Understand next steps for training and certification
Understand, at a high level, the process of migrating from AWS to Google Cloud.