Google Cloud Fundamentals: Core Infrastructure

Duration: 1 Day Course Code: GO8324

Overview:

Learn the value of Google Cloud Platform.

This course uses lectures and labs to give you an overview of Google Cloud products and services. You learn the value of Google Cloud and how to incorporate cloud-based solutions into your business strategies.
Products:
- Identity and Access Management (IAM)
- Cloud Marketplace
- Compute Engine
- Cloud Storage
- Bigtable
- Cloud SQL
- Spanner
- Firestore
- Google Kubernetes Engine
- Cloud Source Repositories
- Cloud Functions
- Cloud Run

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Target Audience:

- Individuals planning to deploy applications and create application environments on Google Cloud.
- Developers, systems operations professionals, and solution architects starting with Google Cloud.
- Executives and business decision makers evaluating Google Cloud's potential to address their business needs.

Objectives:

- **After this course participants should be able to:**
- Identify the purpose and value of Google Cloud products and services.
- Define how infrastructure is organized and controlled in Google Cloud.
- Explain how to create basic infrastructure in Google Cloud.
- Select and use Google Cloud storage options.
- Describe the purpose and value of Google Kubernetes Engine.
- Identify the use cases for serverless Google Cloud services.

Prerequisites:

Familiarity with application development, systems operations, Linux operating systems, and data analytics or machine learning is helpful in understanding the technologies covered.

Testing and Certification

None

Follow-on-Courses:

No recommendation

Content:

Module 0: Introduction to the course

- Introduce course objectives and preview each section of the course.

Module 1: Introduction to Google Cloud

- Identify the Google Cloud's benefits.
- Define the components of the Google network infrastructure, including points of presence, data centers, regions, and zones.
- Identify the difference between infrastructure as a service (IaaS) and platform as a service (PaaS).

Module 2: Resources and Access in the Cloud

- Identify the purpose of projects on Google Cloud.
- Define the purpose of and use cases for IAM.
- List interaction methods with Google Cloud.
- Use Cloud Marketplace to interact with Google Cloud.

Module 3: Virtual machines and networks in the Cloud

- Explore the basics of networking in Google Cloud.
- Identify the purpose of and use cases for Compute Engine.
- Outline how Compute Engine can scale.
- Detail important VPC compatibilities including routing tables, firewalls, and VPC peering.
- Explore how Cloud Load Balancing functions in Google Cloud.
- Deploy a basic infrastructure to Google Cloud.

Module 4: Storage in the Cloud

- Identify the purpose of and use cases for Cloud Storage.
- Distinguish between Cloud Storage classes.
- Distinguish between Google Cloud's database storage options.
- Deploy an application that uses Cloud SQL and Cloud Storage.

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 Kubernetes and Google Kubernetes Engine.

Module 6: Applications in the Cloud

- Identify the purpose and use cases for Cloud Run.
- Describe how Cloud Functions can support application development on Google Cloud.
- Deploy a containerized application on Cloud Run.

Module 7: Course summary

Summarize the content covered in each section of the course.

Additional Information:

Official course book provided to participants

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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