Google Cloud Fundamentals: Core Infrastructure

Kód kurzu: GCPCF

Learn about, and compare, many of the computing and storage services available in Google Cloud, including Google App Engine, Google Compute Engine, Google Kubernetes Engine, Google Cloud Storage, Google Cloud SQL, and BigQuery. You learn about important resource and policy management tools, such as the Google Cloud Resource Manager hierarchy and Google Cloud Identity and Access Management.

Pro koho je kurz určen

- Individuals planning to deploy applications and create application environments on Google Cloud.
- Systems operations professionals, Solution Architects getting started with Google Cloud, and developers.
- Executives and business decision makers evaluating the potential of Google Cloud to address their business needs.

Co Vás naučíme

- Identify the purpose and value of Google Cloud products and services.
- Choose among and use application deployment environments on Google Cloud: App Engine, Google Kubernetes Engine, and Compute Engine.
- Choose among and use Google Cloud storage options: Cloud Storage, Cloud SQL, Cloud Bigtable, and Firestore.
- Interact with Google Cloud services.
- Describe ways in which customers have used Google Cloud.

Požadované vstupní znalosti

Familiarity with application development, systems operations, Linux operating systems is helpful in understanding the technologies covered.

Produkty

- Google Compute Engine
- Google Cloud Storage
- Google Cloud Networking
- Google Kubernetes Engine
- App Engine
- Cloud Run
- Cloud Functions

Není pokryto

- BigQuery (covered in other courses)
- Borg and Colossus (out of scope for this course

Osnova kurzu

Module 1: Introducing Google Cloud

- Identify the advantages of Google Cloud.
- Define the components of Google's network infrastructure, including: Points of presence, data centers, regions, and zones.
- Classify 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 Identity and Access Management..
- List the methods of interacting with Google Cloud.

Module 3: Virtual Machines and Networks in the Cloud

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- Identify the purpose of and use cases for Google Compute Engine.
- Define the basics of networking in Google Cloud.

Module 4: Storage in the Cloud

- Classify the purpose of and use cases for Cloud Storage, and database option available in Google Cloud
- Distinguish between Google Cloud's storage options

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 Kubernetes Engine and Kubernetes.

Module 6: Applications in the Cloud

- Identify the purpose of and use cases for Google App Engine
- Contrast the App Engine Standard environment with the App Engine Flexible environment.
- Identify the purpose of and use cases for Google Cloud Endpoints.
- Identify the purpose and use cases for Cloud Run.

Module 7: Developing and Deploying in the Cloud

- Describe how Cloud Source Repositories and Cloud Functions can support application development on Google Cloud.
- Explain how template-based creation and management of resources leverages a template to produce efficient app deployment and management.

Module 8: Logging and Monitoring in the Cloud

- Define SLIs, SLOs, and SLAs.
- Identify the purpose of integrated monitoring, alerting, and debugging.

Module 9: Course Review and Summary

- Module 1–8 Review
- Additional Learning Paths

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