Architecting with Google Compute Engine (GCE)

Cursusduur: 3 Dagen   Cursuscode: GO5973

Beschrijving:

This three-day instructor-led Google Cloud Platform class introduces participants to the comprehensive and flexible infrastructure and platform services offered by the Google Cloud. Through a combination of presentations, demonstrations, and hands-on labs, participants explore and implement solution elements, including infrastructure components such as networks, systems, and application services.
This course also covers the deployment of practical solutions that include secure networking, customer-supplied encryption keys, security and access management, fees and billing, and resource monitoring.

Doelgroep:

This class is intended for the following participants: Cloud solution architects, DevOps engineers. People who use the Google Cloud to create new solutions or to integrate existing systems, application environments and infrastructure with the Google Cloud .

Doelstelling:

- This course teaches participants the following skills:

- The full range of Google Cloud technologies in their plans.

- Methods to develop and implement solutions.

- Distinguishing between product features and similar or related 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: methods, technologies, and designs used to implement security, scalability, high availability, and other desired qualities.

Vereiste kennis en vaardigheden:

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

- Fundamentals of the Google Cloud or equivalent experience
- Basic knowledge of command line tools and Linux operating system environments

Cursusinhoud:

Module 1: Introduction to the Google Cloud

- Google Cloud Platform Infrastructure (GC)
- Use of GC
- Lab: Console and Cloud Shell
- Demo: Projects
- Lab: Preview of the infrastructure

Module 2: Virtual Networks

- Virtual Private Cloud (VPC), Projects, Networking, Subnets, IP Addresses, Routing, Firewall Rules
- Subnets for resource management instead of physical network topology
- Lab: Virtual networks
- Lab: Host of the bastion

Module 3: Virtual Machines

- Calculation engine
- Lab: Creating virtual machines
- Calculation options (vCPU and memory)
- Images
- Common actions of the calculation engine
- Lab: Working with virtual machines
- Essential Cloud Infrastructure: Core Services

Module 4: Cloud IAM

- Organizations, Roles, Members, Service Accounts, Cloud IAM Best Practices
- Lab: Cloud AMI

Module 5: Data Storage Services

- Cloud storage
- Lab: Cloud storage
- SQL Cloud
- Lab: SQL cloud
- Cloud Key, Cloud Datastore
- Lab: Cloud data storage
- Bigtable Cloud

Module 6: Resource Management

- Cloud Resource Manager, Fees, Tags, Names, Billing
- Demo: Billing Administration
- Lab: Examining billing data with BigQuery

Module 7: Resource Monitoring

- Stackdriver, Monitoring
- Lab: Resource monitoring (Stackdriver)
- Logging, error reporting, tracking, debugging
- Lab: Reporting and debugging bugs (Stackdriver)
- Elastic Cloud Infrastructure: Scaling and Automation

Module 8: Interconnection networks

- Cloud Virtual Private Network (VPN)
- Lab: Virtual private networks (VPNs)
- Cloud Router, Cloud Interconnect, External Peering, Cloud DNS

Module 9: Load Balancing

- Managed Instance Groups, HTTPS Load Balancing, Region and Content Based Load Balancing, SSL/TCP Proxy Load Balancing, Network Load Balancing
- Lab: VM automation and load balancing

Module 10: Self-Scale

- Autoscale, Policies, Configuration
- Lab: Self-scaling

Module 11: Automating the Infrastructure with Google Cloud APIs

- Infrastructure Automation, Images, Metadata, Scripting, Google Cloud API
- Lab: Automating the Google Cloud API infrastructure

Module 12: Infrastructure Automation with Deployment Manager

- Deployment Manager, Configuration, Cloud Launcher
- Lab: Implementation manager

Module 13: Managed Services

- Cloud Dataproc, Cloud Dataflow, BigQuery, Cloud Datalab
- Elastic Cloud Infrastructure: Containers and Services

Module 14: Application Infrastructure Services

- Cloud Pub/Sub, API Management, Cloud Source Features, Cloud Source Repositories, Specialized APIs

Module 15: Application Development Services

- Application Engine

Module 16: Containers

- Containers, Engine Kubernetes, Container Registration
- Lab: Kubernetes load balancing
- Kubernetes engine, application or container engine in Compute Engine?

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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