Architecting with Google Cloud: Design and Process

Varighed: 2 Days   Kursus Kode: GO5974   Leveringsmetode: Virtuel deltagelse

Beskrivelse:

This two-day instructor-led class prepares students to build highly reliable and efficient solutions on the Google Cloud, using proven design patterns and the principles of Google Site Reliability Engineering (SRE). It is a continuation of Architecting with the Google Cloud: it assumes hands-on experience with the technologies covered in that course.
Through a combination of presentations, demonstrations and hands-on classes, participants learn how to design GC implementations that are highly reliable and secure; and how to operate GC implementations in a cost-effective manner.

Målgruppe:

This class is intended for the following participants: Cloud Solutions Architects, Site Reliability Engineers, Systems Operations Professionals, DevOps Engineers, IT Managers.
People who use the Google Cloud to create new solutions or to integrate existing systems, application environments and infrastructure with the Google Cloud.

Agenda:

- This course teaches participants the following skills:

- High availability design, scalability and maintainability.

- Evaluate the advantages and disadvantages of Google Cloud products and make the right decisions.

- Integrate local and cloud resources.

- Identify ways to optimize resources and minimize costs.

- Implement processes that minimize downtime, such as monitoring and alarms, unit and integration testing, production resilience testing, and post-mortem incident analysis.

- Implement policies that minimize security risks, such as auditing or segregation of duties

- Implement technologies and processes that ensure business continuity in the event of a disaster.

Forudsætninger:

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

- Architecting completed with Google Cloud or equivalent course
- Basic knowledge of command line tools and Linux operating system environments
- Experience in systems operations, including application implementation and management, either on-premise or in a public cloud environment.

Indhold:

Module 1: Service definition

Design in this class.

Status and solution.

Measurement.

■ Collection of requirements, SLOs, SLAs and SLIs (key performance indicators)

Module 2: Business Logic Layer Design

Microservices architecture.

12-factor GC support.

Mapping of computing needs to Google Cloud processing services.

■ System provisioning.

Module 3: Data Layer Design

Classification and characterization of data.

Data intake and migration.

■ Identification of storage needs and allocation to Google Cloud storage systems.

Module 4: Designing the Presentation Layer

Network edge configuration.

Network configuration for data transfer within the service, including load balancing and network location.

■ Network integration with other environments, including local and multi-cloud

Module 5: Design for Resilience, Scalability and Disaster Recovery

Failure due to loss of resources.

Failure due to overload.

Strategies for dealing with failure.

Business continuity and disaster recovery, including restoration strategy and data lifecycle management

■ Scalable and resilient design.

Module 6: Designing for Security

Google Cloud Security.

Network access control and firewall.

Denial of service protections.

Resource sharing and isolation

■ Data encryption and key management Identity access and auditing.

Module 7: Capacity Planning and Cost Optimization

■ Capacity planning.Pricing

Module 8: Deployment, Monitoring and Alerting, and Incident Response

Deployment.

Monitoring and alerts.

Incident response.

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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