

Cloud Database Engineer

Course Outline

Module 1: Google Cloud Fundamentals: Core Infrastructure

- Introducing Google Cloud
- Resources and Access in the Cloud
- Virtual Machines and Networks in the Cloud
- Storage in the Cloud
- Containers in the Cloud
- Applications in the Cloud
- Developing and Deploying in the Cloud
- Logging and Monitoring in the Cloud

Hands-On:

- Cloud Storage: Qwik Start - Cloud Console
- Compute Engine: Qwik Start - Windows
- Cloud IAM: Qwik Start
- Cloud Monitoring: Qwik Start

Module 2: Enterprise Database Migration

- Migrating Enterprise Databases to the Cloud
- Google Cloud Data Migration Solutions
- Google Implementation Methodology
- Migration Strategies
- Networking for Secure Database Connectivity
- Migrating SQL Server Databases to Google Cloud
- Migrating Oracle Databases to Google Cloud
- Testing and Monitoring SQL Server Databases in Google Cloud
- Google Cloud Data Migration Services
- Making the Business Case for Moving to Google Cloud

Hands-On:

- Cloud SQL for MySQL: Qwik Start
- Migrating to Cloud SQL from Amazon RDS for MySQL Using Database Migration Service
- Migrating On-premises MySQL Using a Continuous Database Migration Service Job
- Migrating MySQL User Data When Running Database Migration Service Jobs
- Connect an App to a Cloud SQL for PostgreSQL Instance
- Securing a Cloud SQL for PostgreSQL Instance
- Configure Replication and Enable Point-in-Time-Recovery for Cloud SQL for PostgreSQL
- Cloud Spanner - Database Fundamentals
- Cloud Spanner - Loading Data and Performing Backups
- Cloud Spanner - Defining Schemas and Understanding Query Plans
- Deploy a Modern Web App connected to a Cloud Spanner Instance
- Designing and Querying Bigtable Schemas
- Creating and Populating a Bigtable Instance

- Streaming Data to Bigtable
- Monitoring and Managing Bigtable Health and Performance

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