

Enterprise Database Migration

Category: AI, Data & Analytics | **Vendor:** Google Cloud

Duration: 32.00 hours (4 days)

26.0 CPD Hours

Rating: ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This course is intended to give architects, engineers, and developers the skills required to help enterprise customers architect, plan, execute, and test database migration projects. Through a combination of presentations, demos, and hands-on labs participants move databases to GCP while taking advantage of various GCP services.

This course covers how to move on-premises, enterprise databases like SQL Server to Google Cloud (Compute Engine and Cloud SQL) and Oracle to Google Cloud bare metal.

About This Course

This course is intended to give architects, engineers, and developers the skills required to help enterprise customers architect, plan, execute, and test database migration projects. Through a combination of presentations, demos, and hands-on labs participants move databases to GCP while taking advantage of various GCP services.

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Who Should Attend

Engineers planning a data migration to GCP; Engineers working on a database migration project; and Technical managers, IT decision-makers, and others who want to understand the benefits, risks, rewards, and processes of migrating databases to the cloud.

Prerequisites & Entry Requirements

General Prerequisites:

- GCP Professional Cloud Architect and/or Professional Data Engineer certification
- Understanding of relational and NoSQL database design
- Database development experience using SQL
- Programming experience

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Plan, execute, test, and monitor simple and complex enterprise database migrations to Google Cloud.
- Evaluate on-premises database architectures and plan migrations to cloud-optimized deployments.
- Choose appropriate Google Cloud database targets based on on-premises data sources.
- Migrate SQL Server databases to Cloud SQL and Compute Engine.
- Run Oracle databases on Google Cloud bare metal.
- Recognize and overcome the real-world challenges of moving data to prevent data loss, preserve data integrity, and minimize downtime.
- Test and monitor data migration projects.
- Leverage tools to automate data migration.
- Make the business case for moving databases to Google Cloud.

Detailed Course Outline

Module 01: Migrating Enterprise Databases to the Cloud

- Get a high-level solution overview of use cases, customers, and competitors.
- Understand traditional database architectures.
- Optimize databases for the cloud.
- Architect cloud databases for high-availability, scalability, and durability.

Module 02: Google Cloud Data Migration Solutions

- Evaluate the database solutions available on Google Cloud.
- Run databases on Google Cloud infrastructure using Compute Engine.
- Leverage Kubernetes and GKE for deploying databases.
- Use Cloud SQL for managed database solutions.
- Provision Bare Metal Solution for Oracle databases.

- Estimate the cost of database solutions.

Module 03: Google Implementation Methodology

- Migrate to the cloud using Google's implementation methodology
- Perform the key database migration activities
- Choose the appropriate database migration approach.

Module 04: Migration Strategies

- Lift and shift databases from on-premises to Google Cloud.
- Backup and restore databases from on-premises to Google Cloud services.
- Migrate databases to the cloud with no downtime.
- Optimize databases for the cloud.

Module 05: Networking for Secure Database Connectivity

- Build secure networks to host databases and database client applications.
- Allow secure communication across networks using VPC Peering, VPNs, and interconnect.
- Control access to databases using firewall rules.
- Automate network infrastructure using Terraform.

Module 06: Migrating SQL Server Databases to Google Cloud

- Lift and shift SQL Server databases using Compute Engine.
- Employ Cloud SQL for managed SQL Server databases.
- Architect SQL Server for security, high availability, and disaster recovery.
- Configure SQL Server to run with Kubernetes on GKE.

Module 07: Migrating Oracle Databases to Google Cloud

- Explain why running Oracle on Google Cloud makes sense.
- Review the technical specs of Oracle BMS.
- Define common use cases for running Oracle on Google Cloud.

Module 08: Testing and Monitoring Databases in Google Cloud

- Use unit, integration, and regression testing techniques to ensure database migration success.
- Monitor your migration projects with Google tools.

Module 09: Google Cloud Data Migration Tools

- Move large amounts of data to the cloud using Google transfer services.
- Program data processing and ETL pipelines using Cloud Data Fusion.
- Create workflows using Composer.

Module 10: Making the Business Case for Moving to Google Cloud

- Write a business case to justify a database migration.
- Perform risk and cost/benefit analysis on a cloud migration project.
- Estimate the costs associated with 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 Databases in Google Cloud, Google Cloud Data Migration Tools, Making the Business Case for Moving to Google Cloud

Skills You Will Learn:

- Plan, execute, test, and monitor simple and complex enterprise database migrations to Google Cloud.
- Evaluate on-premises database architectures and plan migrations to cloud-optimized deployments.
- Choose appropriate Google Cloud database targets based on on-premises data sources.
- Migrate SQL Server databases to Cloud SQL and Compute Engine.
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- Test and monitor data migration projects.
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Frequently Asked Questions

Q: What delivery options are available for Enterprise Database Migration?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
 - Traditional Instructor-Led Classroom Training (ILT)
 - On-site delivery at your offices anywhere in United Kingdom
 - Private dedicated courses customized for your team
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Q: How many CPD hours does this course provide?

The 4-day Enterprise Database Migration course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Enterprise Database Migration training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Enterprise Database Migration?

Yes, we provide corporate training, dedicated training, and closed classes for Enterprise Database Migration. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Enterprise Database Migration, Data Engineering, EDM, Google Cloud, vILT

Q: Why choose Nexus Human for Enterprise Database Migration?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Enterprise Database Migration training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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