

Implement scalable database solutions using Azure SQL (DP-300T00)

Duration: 4 days

Audience: Professionnel TI

Who is this training for?

This course is intended for data professionals who manage data and databases and who want to learn more about administering the data platform technologies available on Microsoft Azure. This training is also useful for data architects and application developers who want to learn about the technologies available for the data platform with Azure and how to work with these technologies through applications.

Training objectives

- Plan, deploy, and configure SQL Azure offerings
- Monitor database performance and tune a database and queries for optimal performance
- Plan and configure a high availability solution

Summary

This course provides participants with the knowledge and skills to administer a SQL Server database infrastructure from the cloud, on-premises, hybrid relational databases, or Microsoft PaaS databases. This training is useful for professionals who develop content applications from SQL-based relational databases.

Course outline

- Prepare for SQL database maintenance on Azure
- Deploy IaaS solutions with Azure SQL
- Deploy PaaS solutions with Azure SQL
- Evaluate migration strategies to Azure SQL
- Migrate SQL workloads to Azure SQL databases
- Migrate SQL workloads to Azure managed instances
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Configure database authentication and authorization

- Protect data in transit and at rest
- Implement Compatibility checks for sensitive data
- Describe performance monitoring
- Configure SQL Server resources for optimal performance
- Configure databases for optimal performance
- Explore query performance optimization
- Evaluate performance improvement
- Explore performance-based design
- Automate the deployment of database resources
- Create and manage SQL Agent jobs
- Manage Azure PaaS tasks using automation
- Describe high availability and disaster recovery strategies
- Explore PaaS and IaaS solutions for high availability and disaster recovery
- Back up and restore databases

Approach and methodology

A solid foundation in relational databases and SQL Server/Azure SQL administration (instance concepts, databases, backup/recovery, security, performance). A good command of the SQL / T-SQL language to understand diagnostics and optimization. Familiarity with Azure (Azure portal, resources, IaaS/PaaS concepts) since the course covers cloud, hybrid and on-premises scenarios, including PaaS offerings. Typical profile targeted: data professionals (DBAs), but also data architects and developers who must understand the Azure data platform offer and how to use it.

Prerequisites

- Know how to work, manage and develop with SQL Server.
- To know Azure, for example to know how to deploy and manage resources.

Recommendations

Have technical knowledge equivalent to the following courses: Azure Fundamentals