

## Implement scalable database solutions using Azure SQL

**Courses Code:** DP-300T00

**Duration:** 4 Days

**Delivery Mode:** Instructor-led Training (ILT) | Virtual Instructor led Training (VILT)

### Overview

This course provides students with the knowledge and skills to administer a SQL Server database infrastructure for cloud, on-premises and hybrid relational databases and who work with the Microsoft PaaS relational database offerings. Additionally, it will be of use to individuals who develop applications that deliver content from SQL-based relational databases.

### Skills Covered

- Plan and implement data platform resources.
- Implement a secure environment.
- Monitor, configure, and optimize database resources.
- Configure and manage automation of tasks.
- Plan and configure a high availability and disaster recovery (HA/DR) environment.

### Who Should Attend

The audience for this course is data professionals managing data and databases who want to learn about administering the data platform technologies that are available on Microsoft Azure. This course is also valuable for data architects and application developers who need to understand what technologies are available for the data platform with Azure and how to work with those technologies through applications.

### Prerequisites

- Working experience with SQL Server (on-premises) — maintaining and developing databases.
- Experience with Microsoft Azure — deploying and managing Azure resources.
- It's highly recommended (though not strictly required) to have completed:
- AZ-900T00: Microsoft Azure Fundamentals
- DP-900T00: Microsoft Azure Data Fundamentals

### Course Modules

#### 1. Plan and implement data platform resources

Deploy data platform resources in Azure SQL. Explore options for deployment and migration. Calculate resource requirements and create templates.



## **2. Implement a secure environment for a database service**

Implement SQL Server-based options for authentication and authorization, as well as Azure options for securing Azure SQL databases. Explore encryption, firewalls and advanced threat protection.

## **3. Monitor and optimize operational resources in Azure SQL**

Configure hardware and server resources for optimum performance after establishing a baseline. Identify sources of performance problems. Troubleshoot using Azure SQL Intelligent Insights.

## **4. Optimize query performance in Azure SQ**

Analyze individual query performance and determine where improvements can be made. Explore performance-related Dynamic Management Objects. Investigate how indexes and database design affect queries.

## **5. Automate database tasks for Azure SQL**

Scripting repetitive tasks in Azure SQL for regular maintenance jobs and multi-instance administration. Automation of error and resource alerts. Configuration of notifications for failures.

## **6. Plan and implement a high availability and disaster recovery environment**

Data must be available when needed. Configure, test and manage a solution for high availability and disaster recovery using Azure tools and SQL Server tools.

Ref: <https://trainocate.com/courses/microsoft/dp-300t00-administering-microsoft-azure-sql-solutions-training>

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