



DP-300T00: Administering Relational Databases on Microsoft® Azure®

Duration: 4 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Certification: Microsoft Certified: Azure Database Administrator Associate —
Exam: DP-300: Administering Relational Databases on Microsoft Azure

Course Description

This course provides participants 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.

Target Audience

This course is intended for:

- Data Professionals managing data and databases who want to learn about administering the data platform technologies that are available on Microsoft Azure.
- 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

To attend this course, candidates must have:

- Professional experience in database management and technical knowledge of cloud technologies. Specifically:
 - Working with, maintaining, and developing with SQL Server
 - Experience with Azure, such as deploying and managing resources
- Completed the following courses or have the equivalent knowledge and skills:
 - [Introduction to Azure SQL](#) (Found on Microsoft Learn, their online training platform)
 - *AZ-900T00/T01: Microsoft Azure Fundamentals*
 - *DP-900T00: Microsoft Azure Data Fundamentals*



Course Objectives

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

- Plan, deploy and configure Azure SQL offerings.
- Monitor database performance and tune a database and queries for optimum performance.
- Plan and configure a High Availability Solution.

Course Topics

Module 1: The Role of the Azure Database Administrator

- Azure Data Platform Roles
- Azure Database Platforms and Options
- SQL Server Compatibility Levels
- Azure Preview Features

Module 2: Plan and Implement Data Platform Resources

- Deploying SQL Server using IaaS
- Deploying SQL Server using PaaS
- Deploying Open-Source Database Solutions on Azure

Module 3: Implement a Secure Environment

- Configure Database Authentication
- Configure Database Authorization
- Implement Security for Data at Rest
- Implement Security for Data in Transit
- Implement Compliance Controls for Sensitive Data

Module 4: Monitor and Optimize Operational Resources

- Baselines and Performance Monitoring
- Major Causes of Performance Issues
- Configuring Resources for Optimal Performance
- User Database Configuration
- Performance-Related Maintenance Tasks

Module 5: Optimize Query Performance

- Understanding SQL Server Query Plans
- Explore Performance-based Database Design
- Evaluate Performance Improvements

Module 6: Automation of Tasks

- Setting up Automatic Deployment
- Defining Scheduled Tasks
- Configuring Extended Events
- Managing Azure PaaS resources Using Automated Methods

Module 7: Plan and Implement a High Availability and Disaster Recovery (HADR) Environment

- High Availability and Disaster Recovery Strategies
- IaaS Platform and Database Tools for HADR
- PaaS Platform and Database Tools for HADR
- Database Backup and Recovery

LABS INCLUDED

