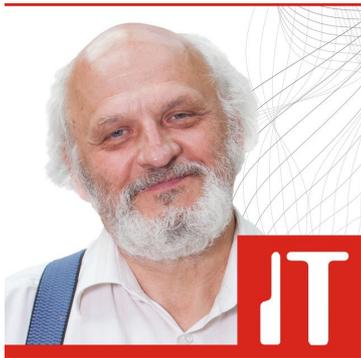


DP-300T00-A: Administering Relational Databases on Microsoft Azure



Kestus: 32 akadeemilist tundi

Vana-Lõuna 39/1, Tallinn

[Vaata kõiki toimumiskuupäevi](#)

The main purpose of this course is to provide 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.



This four-days course additionally will be of use to individuals who develop applications that deliver content from SQL-based relational databases.

Target audience:

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.

Job role: Database Administrator

Preparation for exam: DP-300

Features: none

After completing this course, students 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

Prerequisites to the course (recommended):

Successful Azure Database Administrators start this role with 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

At a minimum, you should know the information in the following online training before attending the course:

- [Introduction to Azure SQL](#)
- [Azure Fundamentals](#)
- [Azure Data Fundamentals](#)

Training Principles:

The training is held in Estonian!

Each learning module is supported by practical exercises with hands-on laboratories.

The prerequisite for issuing the certificate is full participation in training.

Length: 32 academic hours

Access to the standalone exercise environment Microsoft Labs Online (MLO) for an additional fee.

Choose the Microsoft exam that suits you and buy it through IT Training 10% cheaper.

Koolituse läbiviimise põhimõtted:

Koolitus toimub eesti keeles!

Koolituse osad on toetatud praktiliste harjutustega õpilaborites.

Tunnistuse väljastamise eelduseks on koolitusel osalemine terves mahus.

Maht: 32 akadeemilist tundi

Lisatasu eest ligipääs iseseisvale harjutuskeskkonnale Microsoft Labs Online (MLO).

Vali endale sobiv Microsofti eksam ja osta see läbi IT Koolituse 10% soodsamalt.

Continuing Education Curriculum Group: 0688 Information and Communication Technology Interdisciplinary curriculum group

The training topics and description:

Module 1: The Role of the Azure Database Administrator

This module explores the role of a database administrator in the world of Azure. It also provides some foundational information relevant to the overall content. This includes a review of the various SQL Server-based options (SQL Server in a VM, Managed Instances, and Azure SQL Database.) Students will learn why compatibility level is a crucial concept when working with SQL databases in Azure. Students are also introduced to other database platforms available on Azure in addition to those based on SQL Server, in particular PostgreSQL and MySQL

Module 2: Plan and Implement Data Platform Resources

This module introduces methods for deploying data platform resources in Azure. You will learn about options for both upgrading and migrating existing SQL databases to Azure. You will learn how to set up Azure resources to host SQL Server on a Virtual Machine, a Managed Instance, Azure SQL Database and either PostgreSQL or MySQL. You will learn how to determine which options are best based on specific requirements including the High Availability and Disaster Recovery (HADR) needs. They will learn to calculate resource requirements and create templates for their deployments.

Module 3: Implement a Secure Environment

This module explores the practices of securing your SQL Server Database as well as an Azure SQL database. This includes a review of the various SQL Server-based options as well as the various Azure options for securing Azure SQL Database as well as the databases with reside within Azure SQL Database. . Students will learn why security is crucial when working with databases. . Students are also introduced to other database platforms available on Azure in addition to those based on SQL Server, in particular, Azure Database for MariaDB/MySQL/PostgreSQL

Module 4: Monitor and Optimize Operational Resources

This module will teach you about resource optimization for your databases created using either IaaS or PaaS services. The module also covers monitoring server and hardware resources. It will familiarize you with the various tools available for monitoring performance and establishing a baseline. You will learn how to interpret performance metrics for the most critical resources. You will also learn how to troubleshoot database performance using Azure SQL Database Intelligent Insights.

Module 5: Optimize Query Performance

Query execution plans are potentially the most important aspect of database performance. Improving bad plans is certainly an area where a small amount of effort can bring huge improvements. While hardware issues can limit query performance, improving hardware usually yields performance improvements in the 10-20% range, at most. More commonly database administrators encounter queries that are not optimized, have stale or missing statistics, have missing indexes, or poor database design choices that lead to the database engine doing more work than is necessary to return results for a given query. Improving the plans can sometimes yield performance improvements in the 100-200% range or even more, meaning that after improving a plan with better indexes or statistics, a query could run twice or three times as fast! This module provides details on how to analyze individual query performance and determine where improvements can be made.

Module 6: Automation of Tasks

A common goal for database administrators in many environments is to automate as many of their repetitive tasks. This can be as simple as using scripting to automate a backup process, and as complex as building a fully automated alerting system. This module provides details of automating tasks to simplify the DBA's job. Methods include scheduling tasks for regular maintenance jobs, as well as multi-instance administration and configuration of notifications for task success or failure or non-completion.

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

Data must be available when the business needs it. That means the solutions hosting the data must be designed with availability and recoverability in mind. Suppose you work for a company that sells widgets both in stores and online. Your main application uses a highly transactional database for orders. What would happen if the server or platform hosting the transactional database had a problem that made it unavailable or inaccessible for some reason? What impact would it have on the business? If the right solution is put in place, the database would come online in a reasonable timeframe with minimal effort, thus allowing business to continue with little-to-no impact. This module and its associated lab cover configuring, testing, and managing a solution for high availability and disaster recovery (HADR) in Azure, for both Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS) deployments. This module will not only cover basic requirements, but also the various options available to achieve HADR.

More detailed information about the training/ Täpsemat infot koolituse kohta saad:

<https://docs.microsoft.com/en-us/learn/certifications/courses/dp-300t00>

The training price also includes:

- study materials;
- a trainer's consultation on the topics learned, by e-mail after the training;
- certificate.

As an added value, we offer:

- free parking;
- lunch;
- hot drinks with cookies;
- fresh fruits.

You can participate in the training also with the Unemployment Insurance Fund training card.

See you at the training!

AJAKAVA

Every day

09:15 - 09:30 ○ Gathering

The training takes place at Vana-Lõuna 39/1, Tallinn, IT Training premises. You can park in the Europark car park at Veerenni 36, EP63. Parking is free by registering at the IT Training on the first floor.

09:30 - 11:00 ○ I module

11:00 - 11:15 ○ **Coffee break**

11:15 - 12:45 ○ II module

12:45 - 13:30 ○ **Lunch**

13:30 - 15:00 ○ III module

15:00 - 15:15 ○ **Coffee break**

15:15 - 16:45 ○ IV module

LISAINFO

Osalemise tingimused

Registreerudes e-poe, e-kirja või telefoni teel, saadame Teile arve ja täpsema info osalemise kohta.

Üksteist päeva enne koolitust saadame Teile e-kirjaga meenutuse osalemise infoga.

Koolitusel osamine on nimeline, kuid saate osalejat tasuta muuta kuni koolituse alguseni.

Koolituse eest tasumine toimub arvel viidatud arveldusarvele. Arve saadetakse maksja aadressile e-postiga. Arve tuleb tasuda enne koolituse algust arvel märgitud maksetähtajaks.

Kui Te ei saa mingil põhjusel osaleda, palun andke sellest kindlasti teada e-posti aadressil info@koolitus.ee või telefonil 618 1727. Kui teatate koolitusel mitteosalemisest kuni 10 tööpäeva enne algust, pakume mõnd muud samaväärset koolitust või tagastame 100% tasutud koolituse maksumusest. Mitteosalemisest vähemalt 5 tööpäeva varem teatades, tagastame 50%. Muul juhul kuulub arve tasumisele. Raha tagastame ette antud summas juhul, kui pole tehtud koolituse korraldamisega seotud kulutusi (ostetud õppematerjale jms). Koolitusele mitteilmumisel, sellest mitteteatamisel või koolituse pooleljätmisel

õppetasu ei tagastata.

IT Koolitusel on õigus koolitusgrupi mitte täitumisel koolituse toimumine edasi lükata või koolitus ära jätta. Koolitusele registreerunud teavitatakse kursuse edasi lükkumisest või ära jätmisest telefoni või e-posti teel. Koolituse ära jäämisel korraldajatest tulenevatel põhjustel makstakse õppetasu tagasi. .

IT Koolitus on Eesti Töötukassa koolituskaardi koostööpartner. Tutvuge koolituskaardi infoga [SIIN](#). Täpsema info saamiseks võtke meiega ühendust telefonil 618 1727 või info@koolitus.ee.