



COURSE: Migrating SQL Server Datawarehouse to Azure

You have a Datawarehouse and a BI solution in place. You probably have some doubts about how it will scale or if it is aligned with modern trends. Then this workshop is for you!

A modern data warehouse lets you bring together all your data at any scale easily, and allows you to get insights through analytical dashboards, operational reports, or advanced analytics for all your users. The cloud, of course, provides all of that and more but with a complex mixture of services, that you need to carefully select. You need to plan your costs, your data movement, modeling engine, data storage and most importantly - how are you going to consume that data in an optimal way. Choosing the right service for the right task is crucial if you want scalable, performant and easy to maintain platform. In this workshop you will get an architectural overview of the Azure BI Data Platform stack with focus on industry patterns, strategies to migrate existing DWH and BI solutions, including SSIS, SSAS, SSRS to an environment, where only the sky is the limit. You will understand what's behind the buzzwords like Data Lake, Azure Analysis Services, Azure Data Bricks, Azure Data Factory and BLOB storage, and you will get familiar with them. You will get all the help you need and the knowledge to select the right data architecture or data pipeline for your scenario, and then select the Azure services and technologies that best fit your requirements.

Summary

Duration: 5 days/40 hours

Level: 300*

Delivery method: In class

Language: English/Bulgarian

* The difficulty level is consistent with the widely accepted scale of technical difficulty of training on Microsoft Corp

TRAINING OVERVIEW:

This migration training is focusing on describing the Azure services that participate in the modern Datawarehouse deployment first (such as Azure Data Flow, Azure SQL DB, Azure DWH, Azure Analysis Services). It also covers extension of the traditional DWH with big-data scenarios and potential services and how they integrate with the traditional flow.

During the hands-on part of the workshop we take an on-premise deployment of SQL Server Integration Services, SQL Server Database and SQL Server Analysis Services, that is pre-prepared by Inspir-IT, and migrate it to Azure, discussing the different options and deciding what is the best approach out of all available ones.

AFTER THE TRAINING ATTENDEES WILL BE ABLE TO:

- Describe and distinguish different scenarios for implementing Modern Datawarehouse by using services, such as: Azure Blob Storage, Azure Data Lake, Azure Data Flow, Azure SQL DB, Azure SQL DWH, Azure Analysis Services, Stream analytics and Azure Data Bricks/Azure ML
- Create Azure Data Flow solutions for automation of ETL, including migration AS-IS existing SSIS packages
- Describe and implement different migration strategies for on-premises SQL DWH databases to Azure (both to SQL DB and SQL DWH)
- Plan and Implement migration of existing models to Azure Analysis Services

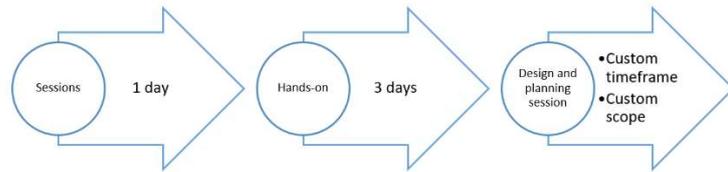


Course overview

Day 1: Educate session

Day 2–4: Hands-on days

Day 5: Design and planning session



The Design and planning stage is an extension of the service, where the knowledge from the first stages are applied on fictitious customer's Datawarehouse. During the 5th day, an architecture example will be reviewed, and a complete migration scenario will be high-level designed and scoped. The Design day includes series of scoping and planning sessions. This day will give attendees extremely useful knowledge of how to approach a migration to the cloud which they can apply in their existing Datawarehouse environments.

Audience

Datawarehouse specialists, data experts, BI developers and all others who deal with data and are responsible for creating, managing and maintaining your company's Datawarehouse solution.

Out of scope for the standard delivery (Education and Hands-on stages)

This service is not covering the following:

- Customer's databases, SSIS packages or any other artefacts

Prerequisites

SQL Master Academy will provide pre-staged virtual machines and data to be used for the delivery. Customer must have:

- Azure subscription

Workshop agenda

Day 1: Educate session:

Module 1: Overview of Azure data platform related services – service description, pricing, purpose of the service, typical tasks to solve and typical architectures it participates in

Module 2: Architectural overview of an Azure data platform solution

1. Building blocks
2. SLAs – per service and calculating the total solution SLA
3. BCP/DR – per service
4. Scalability | Typical solution and design patterns

Day 2 – 4: Hands-on days

Data Ingestion

- ADF | Blob storage | Azure Data Lake | Data gateway | (ITP) Live Data | (ITP) Azure Functions/Logic Apps/Azure Automation

Data Prepare/Train and Store

- Azure data bricks | Azure ML | Cortana Intelligence Suite | Azure SQL DB | Azure DWH

Model and Serve

- Azure AS (only Tabular) | PowerBI/PBI Premium/Embedded

Summary and final overview