



# Workshop: Master Azure Synapse for Data Management and Transformation

## Description and Value Proposition:

In this workshop, we will guide you step by step through the key tools and services of Azure Synapse to manage, transform, and analyze data at scale. You will learn how to integrate key services such as Azure Data Lake, Azure Data Factory, and Azure Key Vault within a secure and efficient environment. Additionally, we will explore the installation and configuration of SQL Server 2019 and how to apply advanced activities in Azure Data Factory.

This workshop is designed to equip you with the necessary skills to execute robust and scalable data projects on the Azure cloud.



Explore the functionalities of the Azure Portal and familiarize yourself with the interface for efficiently managing and monitoring resources.



Learn how to use Azure Storage and Azure Data Lake to store large volumes of unstructured and semi-structured data, ensuring scalability and optimal performance.



Discover how to deploy and manage cloud databases with Azure Database, leveraging high availability, security, and advanced processing capabilities.

## Main Workshop Topics

### Download and Install SQL Server 2019 and SSDT 2019

You'll learn how to download and install SQL Server 2019 and SQL Server Data Tools (SSDT) 2019, essential for developing and managing local and cloud-based database solutions.

### Azure Key Vault

Explore how to manage and protect secrets, keys, and certificates using Azure Key Vault, ensuring security when managing sensitive credentials.

### Azure Data Factory (ADF)

Dive into the capabilities of Azure Data Factory, Microsoft's data integration tool. You'll learn to create pipelines, move and transform data at scale, and automate data workflows.

#### • Move and Transform Activities

Discover how to configure activities to move and transform data within Azure Data Factory, optimizing workflows.

#### • Data Flow en Azure Data Factory

Learn how to design and execute Data Flows, allowing you to transform data in real-time without the need for code.

#### • Azure Key Vault con Azure Data Factory

Learn how to integrate Azure Key Vault to protect credentials used in your Data Factory pipelines.

#### • General Activities

Explore key activities like data copying, event handling, and script execution in Azure Data Factory.

#### • Iteration and Conditionals

Learn how to incorporate control structures like iterations and conditionals into your pipelines to create more dynamic and adaptable workflows.

### Power Query

Discover Power Query, a powerful data transformation tool that allows users to create ETL solutions with a visual interface, both within and outside of Azure Synapse.

### Triggers

Learn how to automate workflows in Azure Data Factory using triggers that execute pipelines based on events or predefined schedules.

### Integration Runtime en Azure Data Factory

Dive into the concept of Integration Runtime, the engine that runs data movement and transformation activities in Azure Data Factory.

## Live demo

Participate in a live demo where you'll see how to configure and use the main services of Azure Synapse:

- Creating and managing a Data Lake.
- Configuring pipelines in Azure Data Factory.
- Securing credentials with Azure Key Vault.
- Real-time data movements with Data Flow.

#### Duration:

2 hours

#### Format:

Virtual

#### Target Audience:

Database administrators, data architects, data analysts, and cloud development teams.