Building a Simple Data Pipeline with Azure





Introduction

- Objective: Move data from a local SQL Server (AdventureWorksLT2019) to Azure Blob Storage using Azure Data Factory (ADF) and create a table in Azure SQL Database.
- Focus: Business-specific example with a video demo.





Business Scenario

- Context: Retail company migrating customer data to the cloud for scalability and accessibility.
- Objective: Efficiently transfer the Customer table to enable advanced analytics and reporting.





Solution Overview

- Local SQL Server: Source database with the Customer table.
- Azure Blob Storage: Intermediate storage for data transfer.
- Azure Data Factory (ADF): Orchestrates data movement using a Self-hosted Integration Runtime (IR).



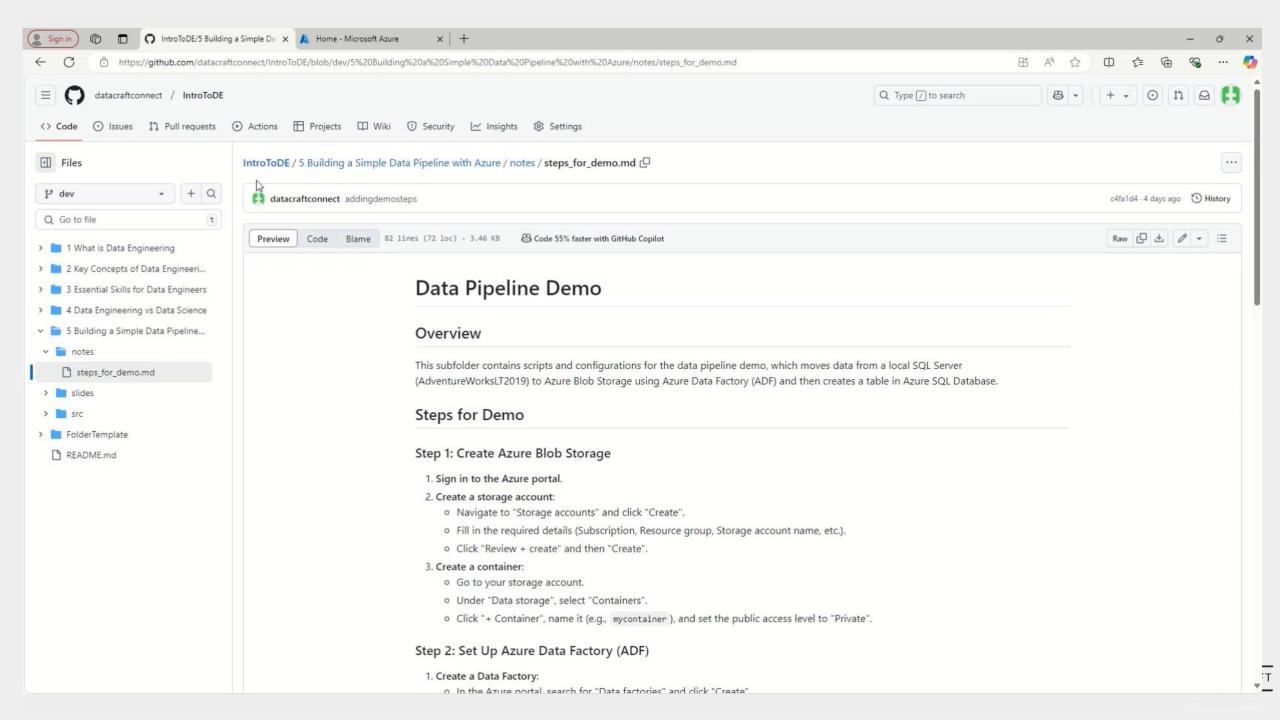


Prerequisites for the Demo

- MS SQL 2019 Developer Edition.
- AdventureWorksLT2017.bak.
- Azure Account







Key Steps

Set Up Azure Blob Storage:

Create a storage account and container.

Configure Azure Data Factory:

Create a Data Factory instance.

Install Self-hosted IR on the local machine.

Create Linked Services:

Connect to local SQL Server and Azure Blob Storage in ADF.

• Build and Run Pipeline:

Design a pipeline to copy data from SQL Server to Blob Storage



Business Benefits

- Scalability: Scale data storage and processing in the cloud.
- Accessibility: Enable remote data access for global teams.
- Advanced Analytics: Utilize Azure's analytics tools for better insights.
- Cost Efficiency: Reduce on-premises infrastructure costs.





Conclusion

• Demonstrated building a data pipeline using ADF, to migrate data from on premise database server to Azure Blob Storage.



