datasciencedojo
data science for everyone

MICROSOFT FABRIC: CRASH COURSE

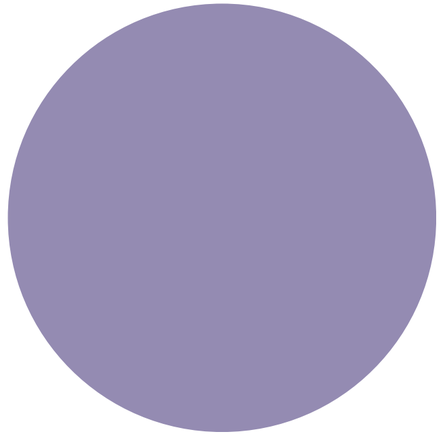
A Comprehensive Crash Course on Unified Data Analytics

About Me

I’m a Computer Engineering graduate and a passionate data scientist. My journey has been fueled by a strong foundation in data analysis, visualization, and tools like Microsoft Fabric, which I utilize to derive impactful insights.

In my current role, I have:

- Collaborated on client projects to develop scalable ETL pipelines using Microsoft Fabric.
- Delivered data-driven solutions for various clients through Power BI.
- Authored articles on Power BI and Microsoft Fabric to share insights and practical applications.



Associate Data Scientist

Data Science Dojo

datasciencedojo
data science for everyone

Agenda

- Introduction to Microsoft Fabric
- Discuss Key Components of Microsoft Fabric
- How Microsoft Fabric is different?
- Hands-On Tutorial with Microsoft Fabric
- Q&A and Resource Sharing

datasciencedojo
data science for everyone

What is Microsoft Fabric?

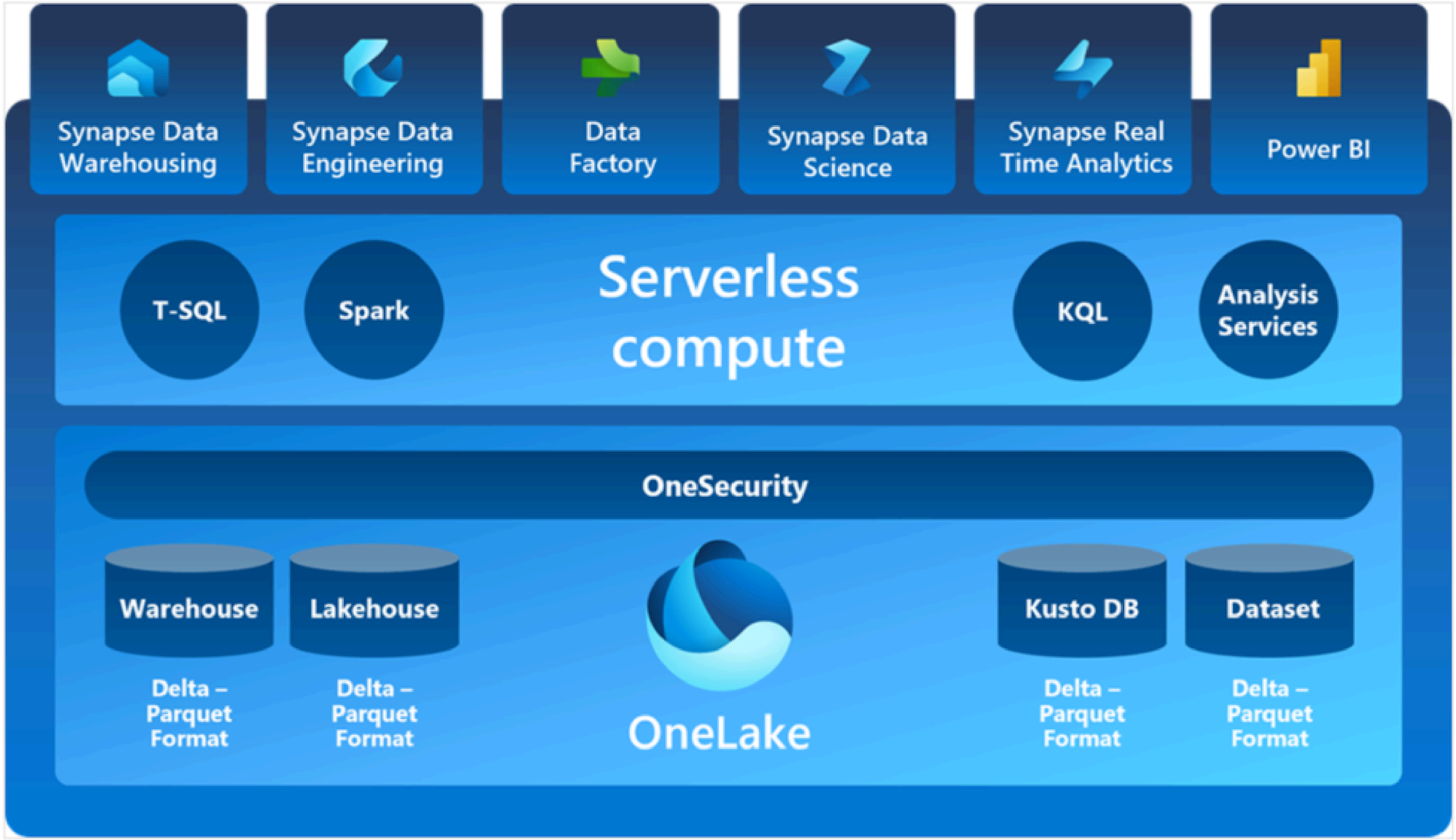
Microsoft Fabric is an end-to-end analytics and data platform designed for enterprises that require a unified solution. It encompasses data movement, processing, ingestion, transformation, real-time event routing, and report building.

With Fabric, you don't need to assemble different services from multiple vendors. Instead, it offers a seamlessly integrated, user-friendly platform that simplifies your analytics requirements.

datasciencedojo
data science for everyone

Components of Microsoft Fabric

datasciencedojo
data science for everyone

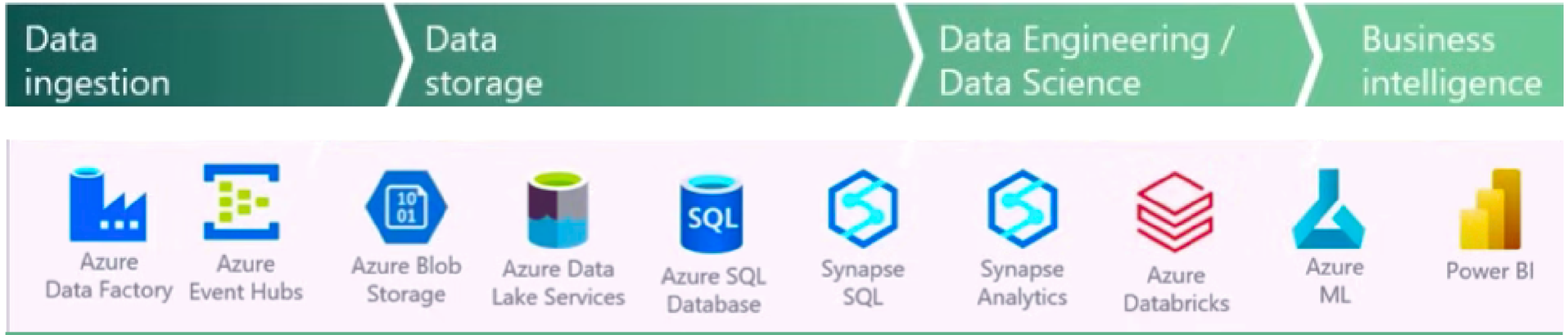


Example Workflow

Through an example workflow, let’s compare how Microsoft Fabric differentiates itself from other Azure tools for this scenario.

datasciencedojo
data science for everyone

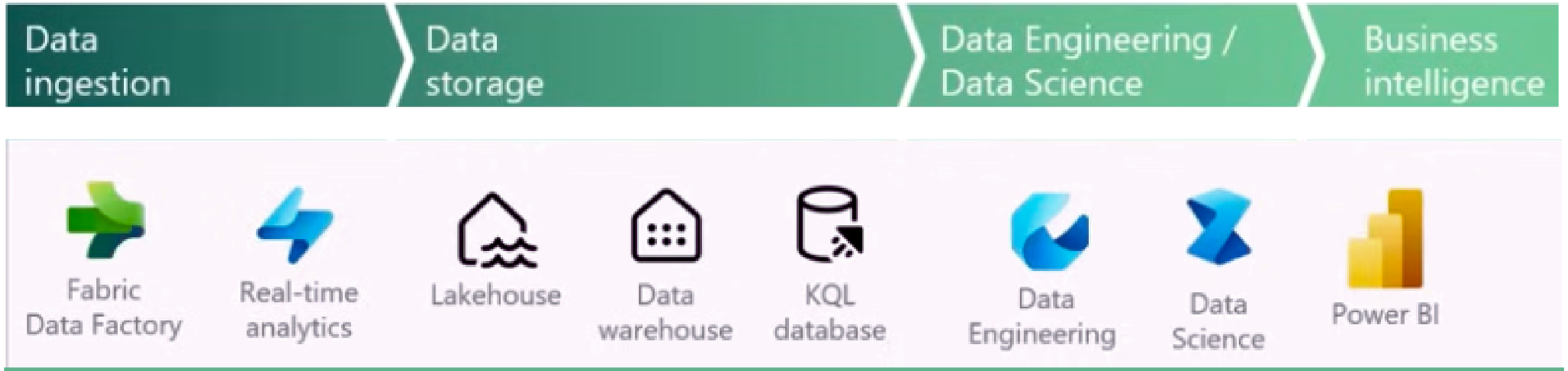
Existing Tools



Data Silos	Requires significant effort to integrate disparate datasets
Data Copies	Often require duplicating data for processing or sharing between tools
User Interface	Varying interfaces for different tool
Security & Governance	Security policies vary across tools, requiring manual alignment

datasciencedojo
data science for everyone

How Microsoft Fabric is different?



Data Silos	OneLake
Data Copies	One copy of data
User Interface	Unified user experience
Security & Governance	Single Security/Governance Model

datasciencedojo
data science for everyone

Hands-on Exercise

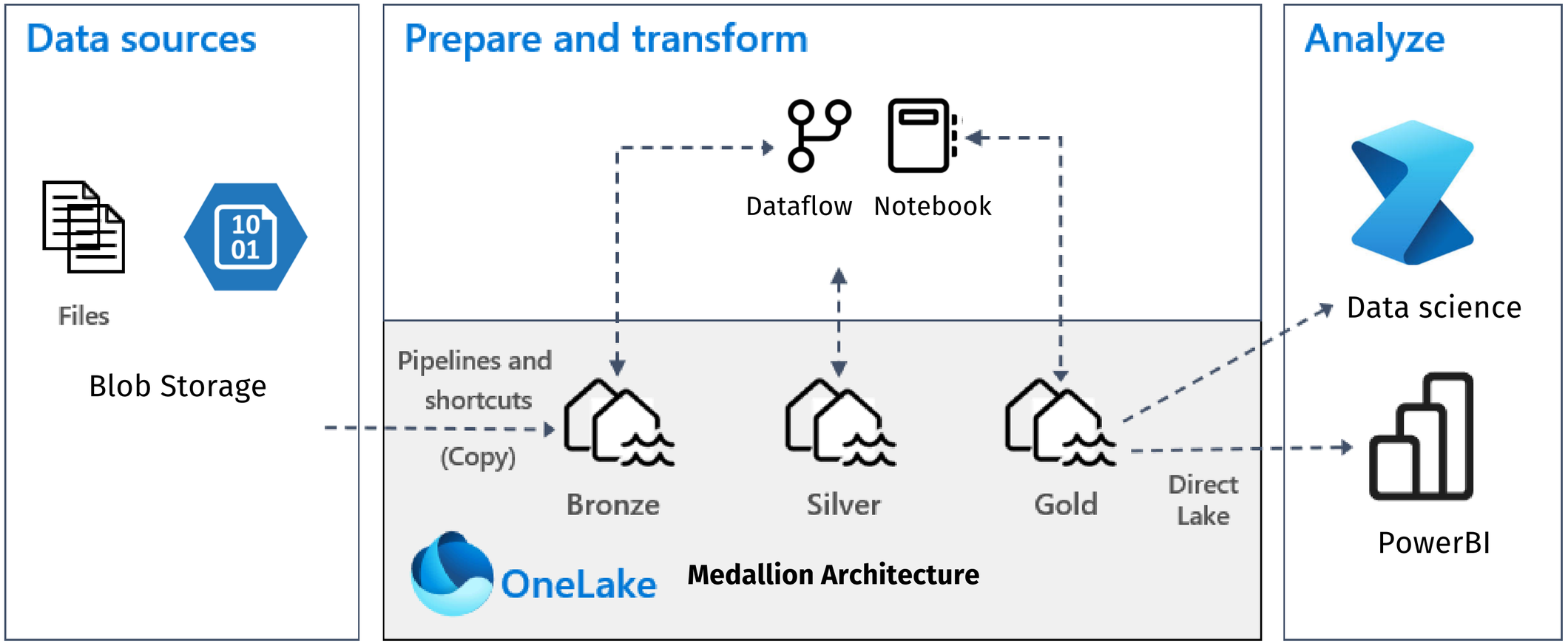
In this exercise, we will predict whether bank customers will churn. This tutorial requires Data ingestion, Data Cleaning, Data Visualization, and Machine learning models.

Here is the flow of exercise:

- Copy data from Blob Storage to the Lakehouse
- Perform transformations on data using DataflowGen2 and store the transformed data in the Lakehouse
- Create a Notebook to further transform data and store it the Lakehouse.
- Utilize the transformed data to create a PowerBI business analytics report.
- Using the same transformed data, perform further required steps to create a predictive ML model.

datasciencedojo
data science for everyone

Architecture



datasciencedojo
data science for everyone

Live Demonstration

datasciencedojo
data science for everyone

Q & A Session

datasciencedojo
data science for everyone

Thank you!