Modern Data Platform Reference Architecture Load and Ingest Process Stream Datasets λ Lambda Architecture and Real-time Dashboards Stream **Hot Path** V=Velocity **Business User** Real Time IoT devices, sensors, gadgets Analytics **Event Hubs Stream Analytics** (loosely-typed) **Cold Path** History and ill) **Trend Analysis** Non-structured **Analytics Cognitive Services Power BI Premium** V=Variety Azun ML images, video, audio, free text (no structure) **Build and Score** ML models Semi-Structured **Azure Storage Data Factory Databricks** CosmosDB **Application** V=Volume Scheduled / eventcsv, logs, json, xml triggered data ingestion (loosely-typed) Integrate big data scenarios with Fast load traditional data data with warehouse Polybase Enterprise-grade semantic model **Relational Databases SQL Data Warehouse Power BI Premium Analytics** (strongly-typed, structured) **Store** Serve

Microsoft

Azure Data Platform End2End

Lab Architecture

Lab 1: Load Data into Azure SQL Data Warehouse using Azure Data Factory Pipelines

Lab 2: Transform Big Data using Azure Data Factory Mapping Data Flows

Lab 3: Explore Big Data with Azure Databricks

Lab 4: Add AI to your Big Data pipeline with Cognitive Services

