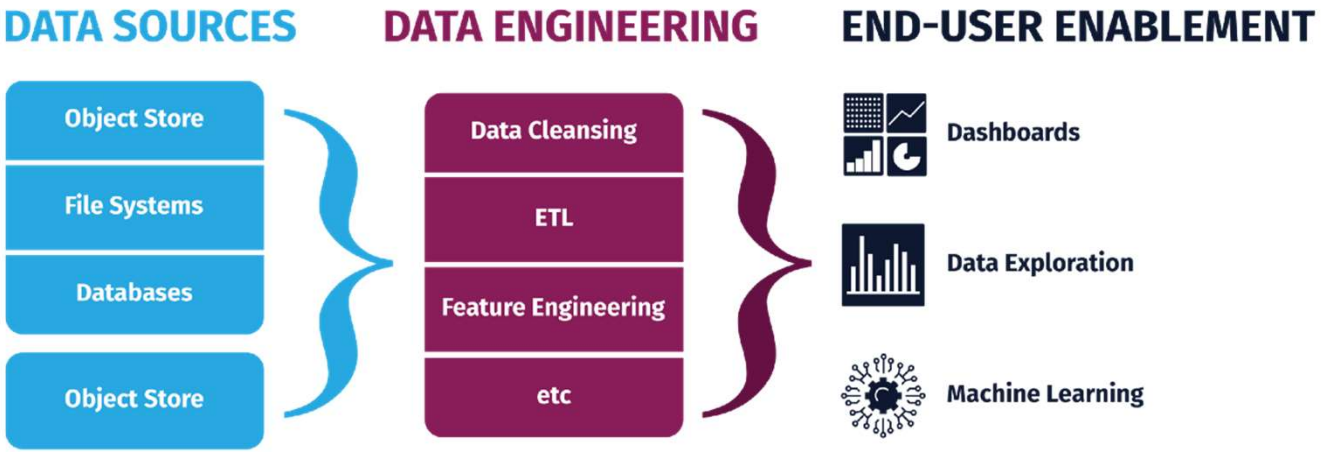
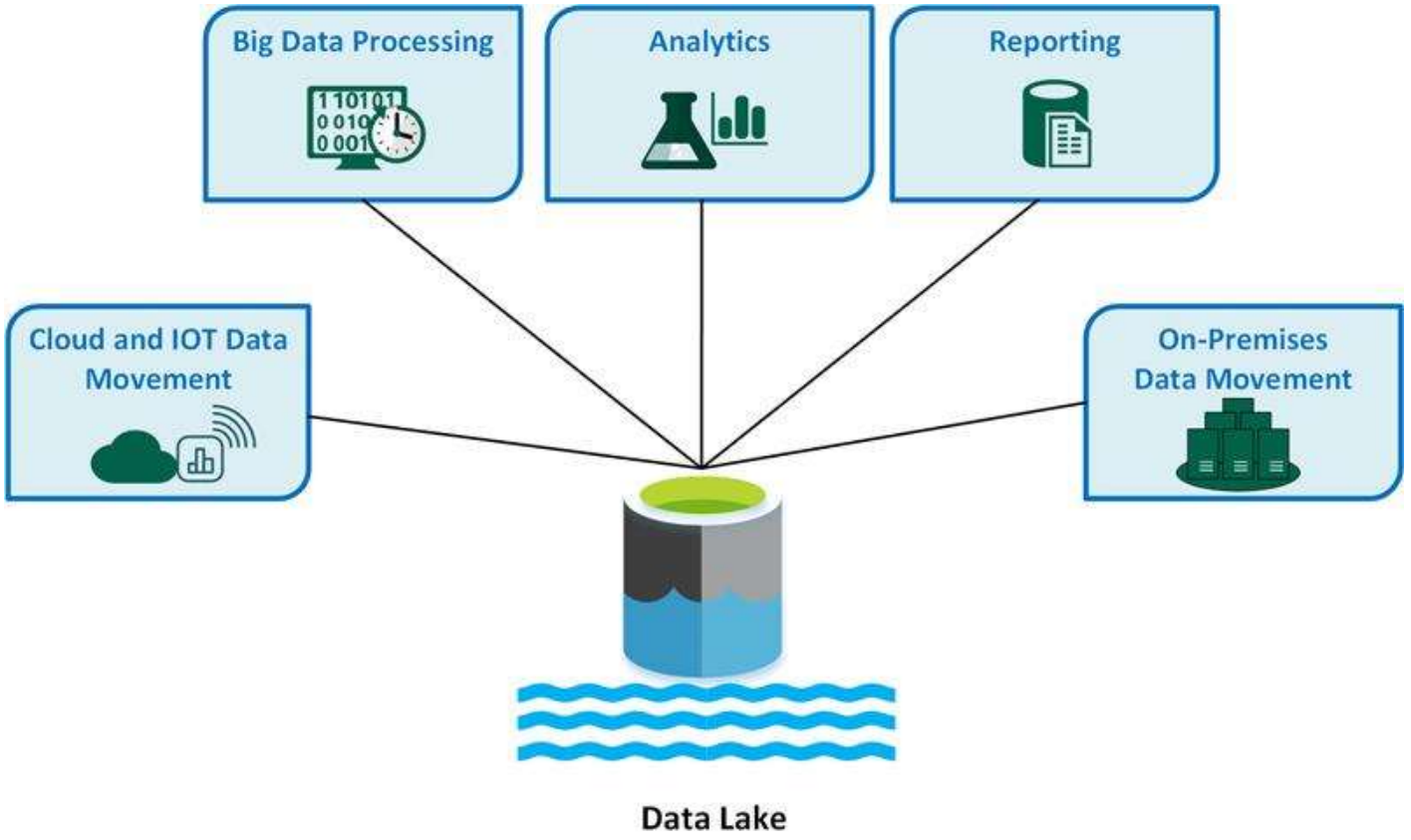
Azure Data Engineering



Azure Data Lake account

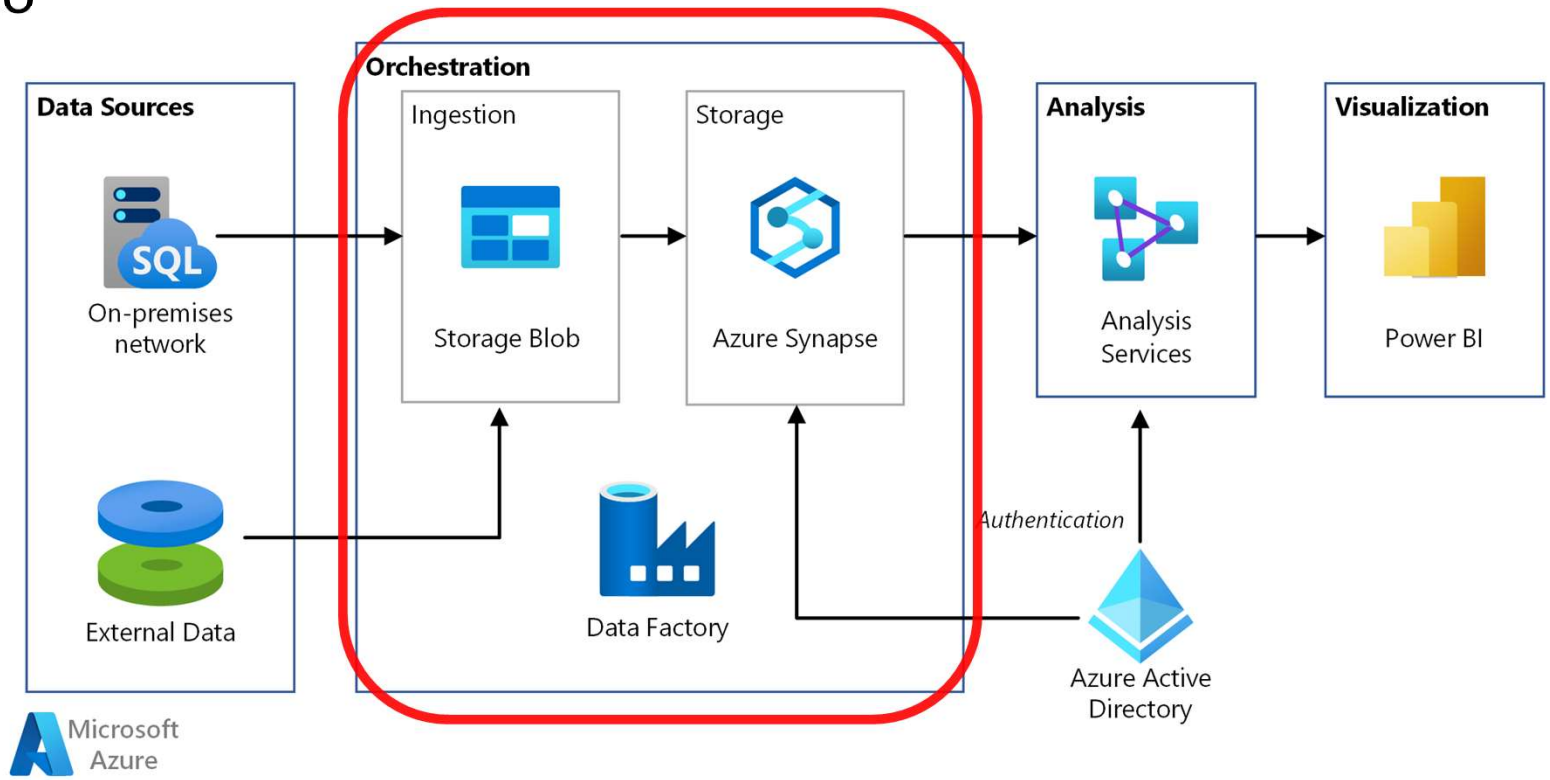


Azure Data Factory

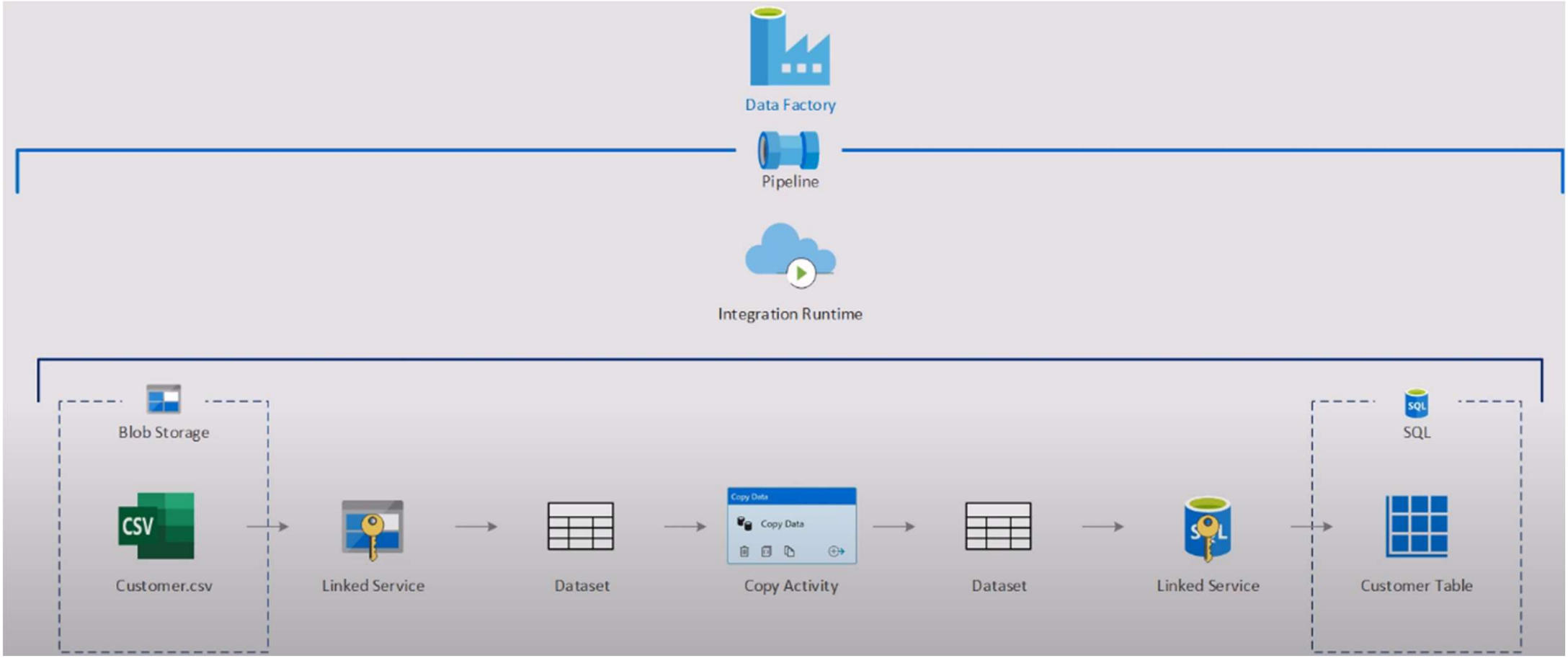
- Introduction
- Top level Concepts in Azure Data Factory
- Creating first data factory
- Pipelines and Activity
- Linked Services and Datasets
- Copy Data Activity - Copy Specific file Within ADLS
- Copy Data Activity – from ADL to SQL
- Implementation of Triger

Data Factory Introduction

- A powerful Cloud ELT tool
- Allow developers to integrate disparate data sources
- Provides access to
  - On-premises
  - Cloud data



Top level Concepts in Azure Data Factory

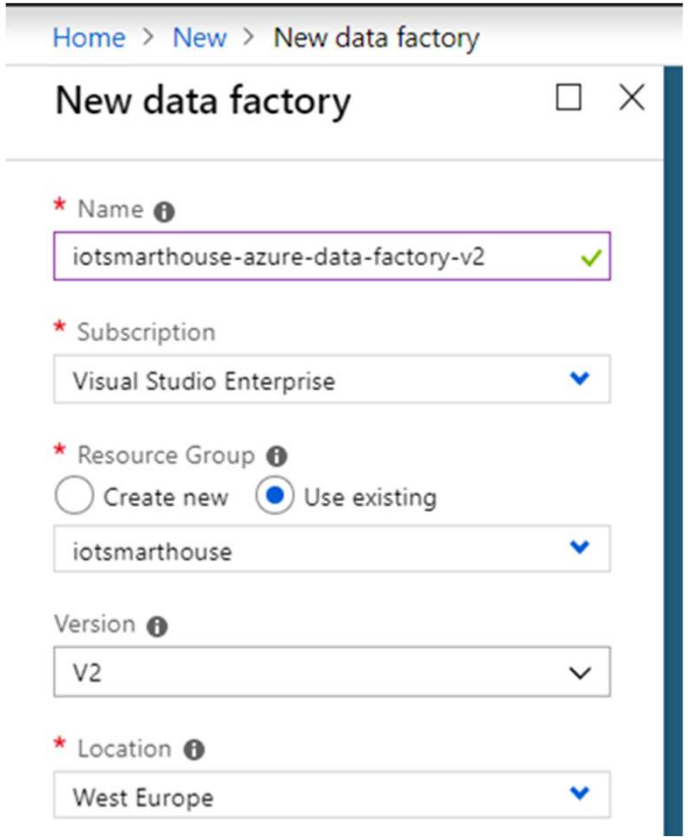


ADF allows you to..

Move data	• From on-premises and cloud sources to a centralized data store
Transform and integrate	• Big data processing and machine learning
Has visual interface.	
Invoke pipelines with	• Manual • Event • Scheduling

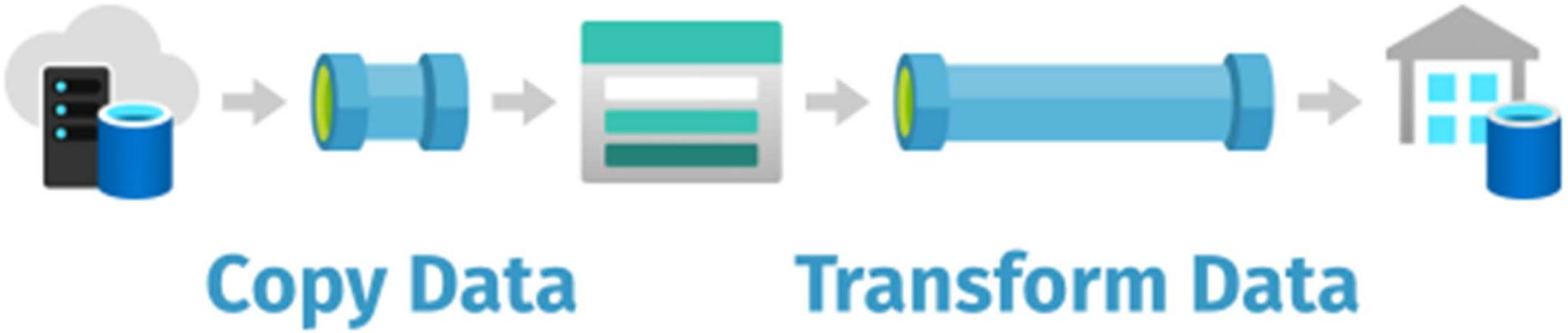
Demonstration: Create Azure Data Factory

- First, you do not install it, you create a service in Azure by:
  - New -> Analytics -> Data Factory
- Then, you need to set the
  - name,
  - select your subscription,
  - resource group,
  - version (1 or 2) and
  - location.



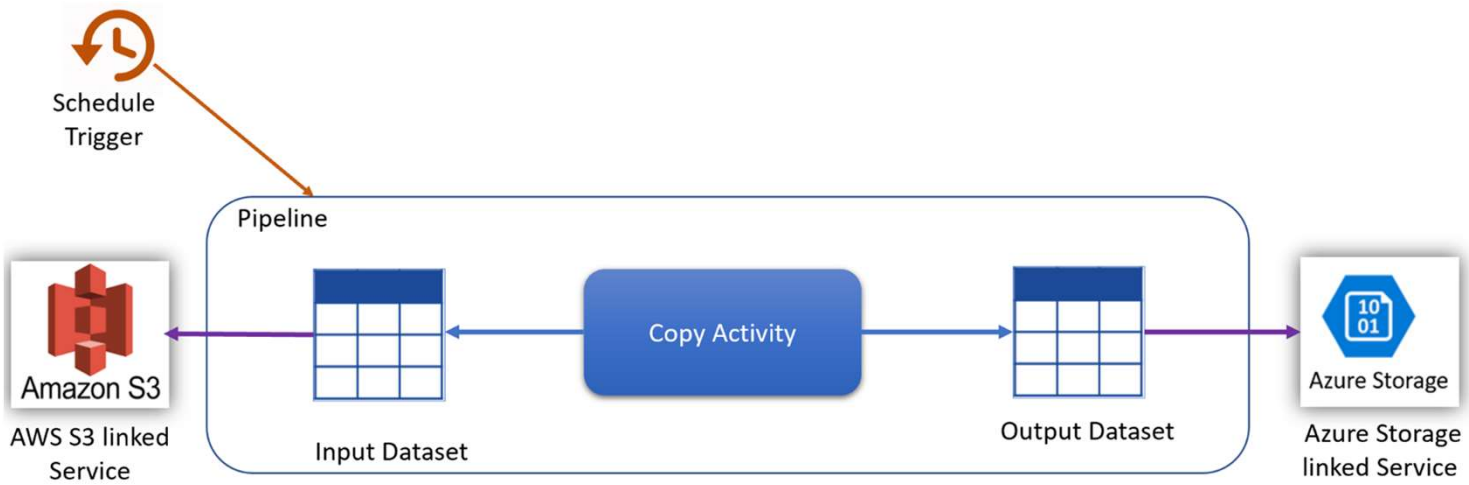
Pipeline

- Logical grouping of activities that performs a unit of work
- Together, the activities in a pipeline perform a task
- For example
  - A pipeline can contain a group of activities that ingests data from an Azure blob, and
  - Then runs a Hive query on an HDInsight cluster to partition the data.



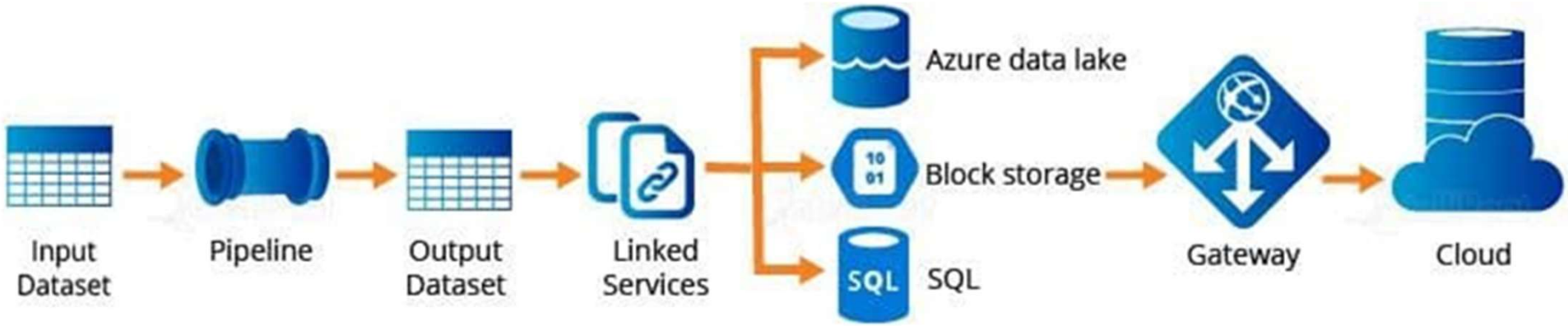
Activity

- Represent a processing step in a pipeline
- Example: Use a copy activity to copy data from one data store to another data store
- Data Factory supports three types of activities
  - Data movement
  - Data transformation
  - Control activities



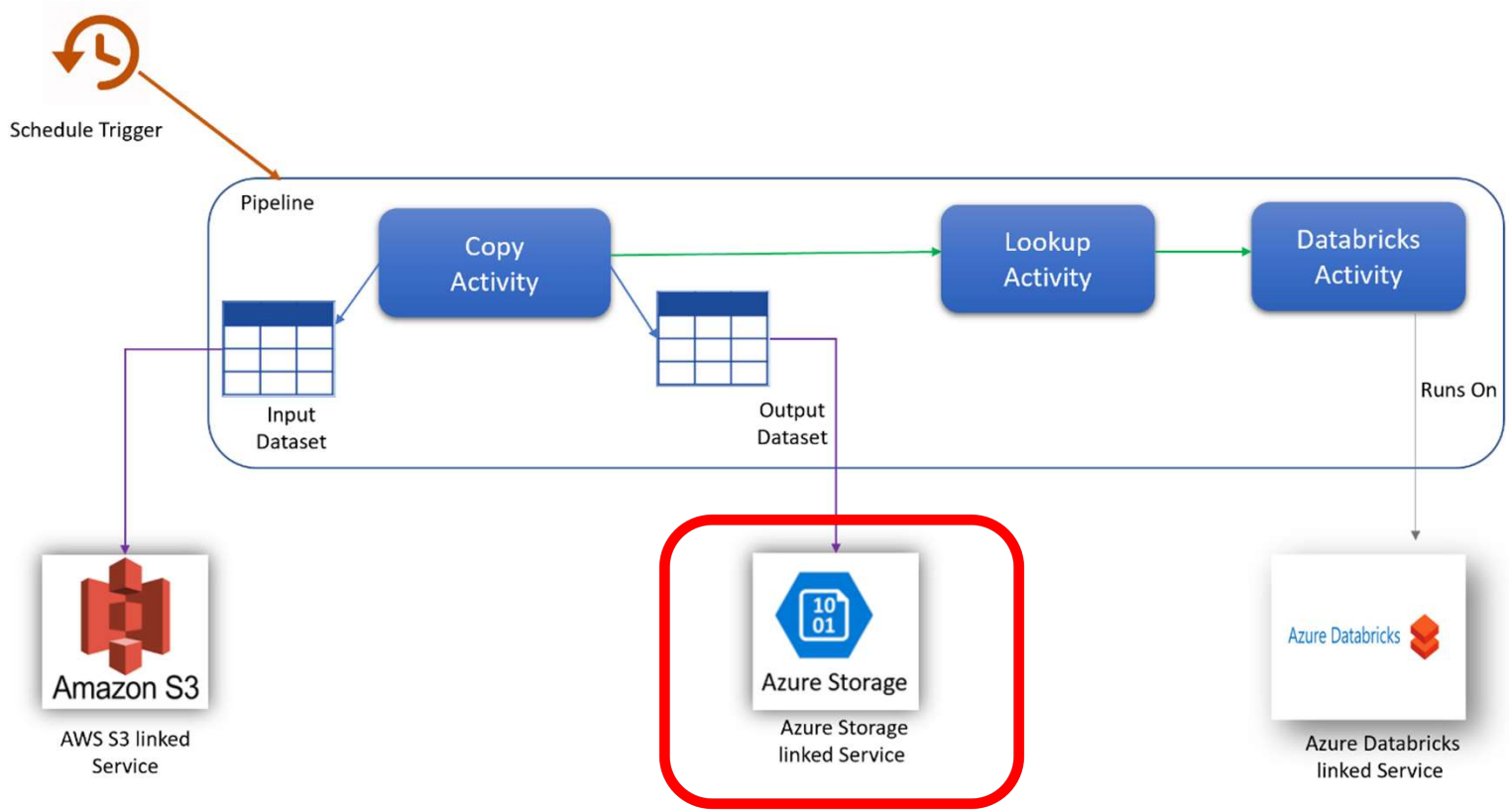
Datasets

- Represent data structures within the data stores
- It simply point to or reference the data you want to use in your activities as inputs or outputs.



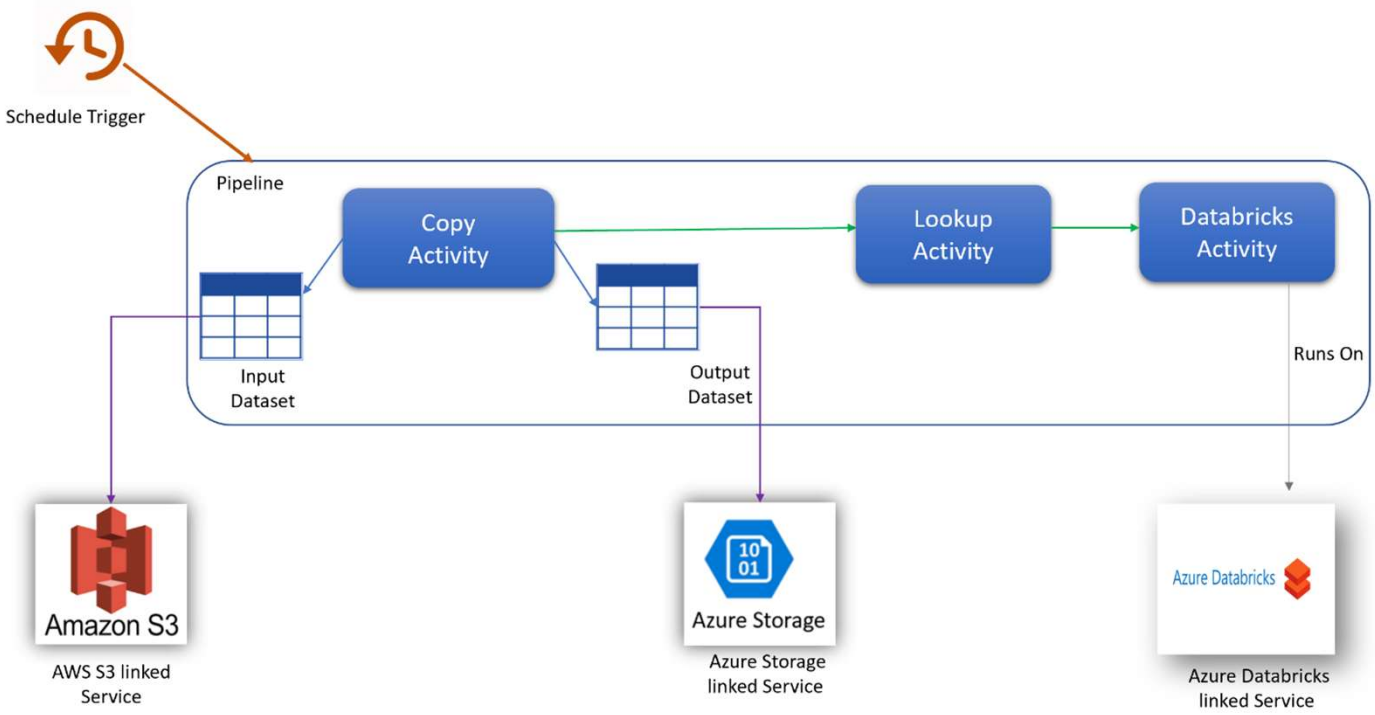
Linked services

- Are much like connection strings, which define the connection information
- It’s needed for Data Factory to connect to external resources



Triggers

- Triggers represent the unit of processing that determines when a pipeline execution needs to be kicked off
- There are different types of triggers for different types of events.



Copy Data Activity - Copy Specific file Within ADLS

- Demonstration: 20 minutes

Copy Data Activity – from ADL to SQL

- Demonstration: 20 minutes

Implementation of Triger

- Demonstration: 10 minutes

Thanks