Sentiment Analysis using Azure Data Factory and Azure Cognitive service

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Alpa Buddhabhatti

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- Master in Computer Science
- 13 years experience
- Microsoft Certified Trainer (MCT)
- Microsoft Certified Azure Developer(AZ-204)
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Agenda

1. Azure Data Factory overview

2. Azure Cognitive service for Language Overview

3. Demo
Sentiment Analysis using Azure Data Factory & Cognitive Services

1. Azure Data Factory Overview

What is Azure Data Factory(ADF)?

A cloud-based data integration service that *orchestrates* and *automates* the *movement* and *transformation* of data.

- ✓Azure Platform as a Service (PaaS)
- ✓It is Serverless
- ✓Only pay for what you have use
- ✓Low-code and no-code Solutions

What are Key Components of ADF?

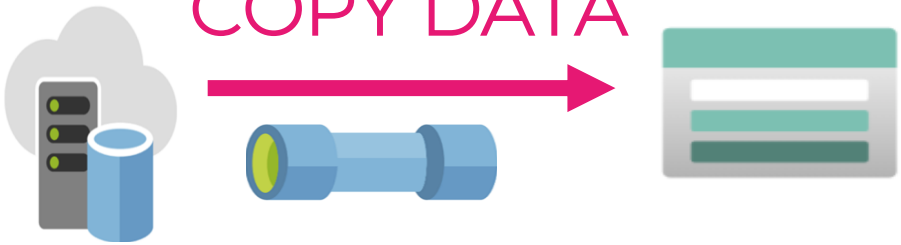
A cloud-based data integration service that *orchestrates* and *automates* the *movement* and *transformation* of data.

1. **Linked services**
2. **Datasets**
3. **Activities**
4. **Pipelines**
5. **Triggers**

What can you do in ADF?

Data Movement

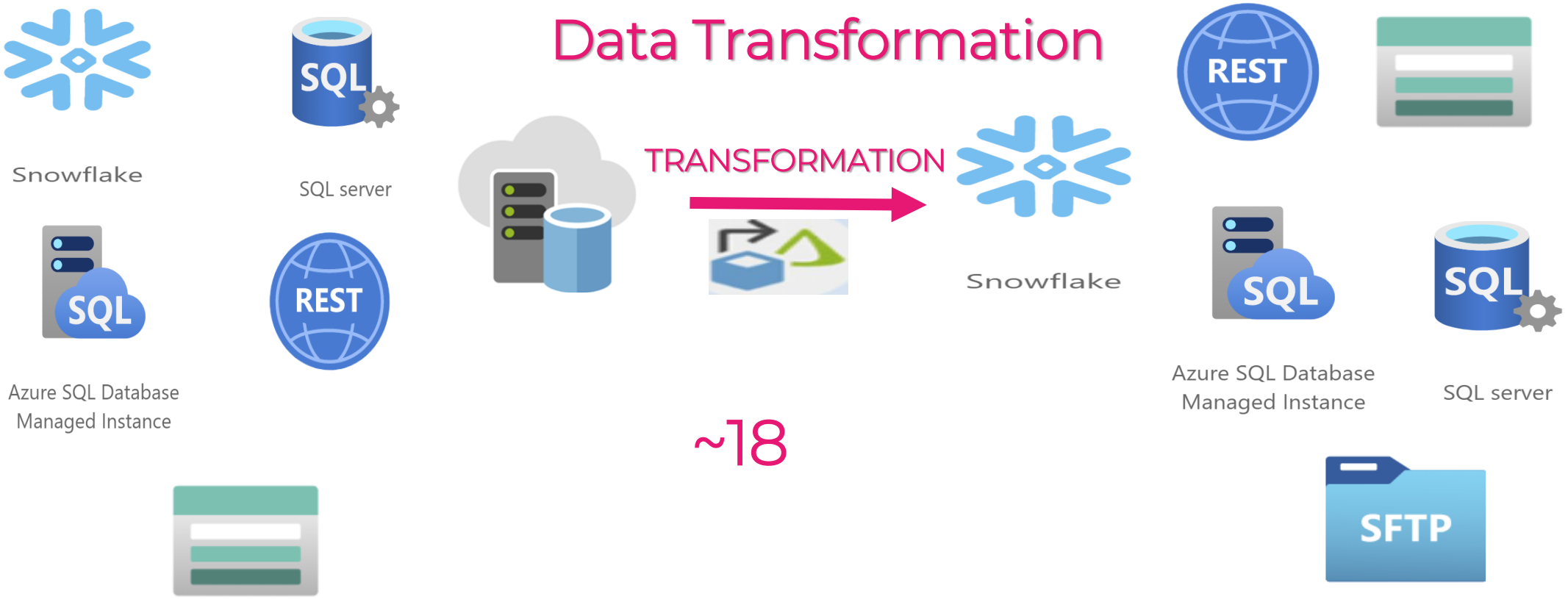
SQL server



~100

[Copy activity - Azure Data Factory & Azure Synapse | Microsoft Docs]

What can you do in ADF?



[Source transformation in mapping data flow - Azure Data Factory & Azure Synapse | Microsoft Docs]

What can you do in ADF?

- ✓Pipelines are JSON, ready for Source Control
- ✓Built in Git Integration
- ✓Monitor
- ✓Manage

What can you do in ADF?

Trigger pipeline

- ✓A Specific Time
- ✓File created or deleted from Blob Storage
- ✓Customer Activity such as

2. Azure Cognitive service for Language

Azure Cognitive Services Text Analytics

Azure Cognitive service - Language

- ✓Azure Cognitive service for Language
- ✓Text Analytics (Text, Documents)
- ✓Extract, Classify and Understand text within documents
- ✓Sentiment labels (such as "negative", "neutral" and "positive")
- ✓NLP - Natural Language processing technique
- ✓No code or Low code
- ✓Create an Azure Language resource
- ✓The REST API or the client library for C#, Java, JavaScript, and Python

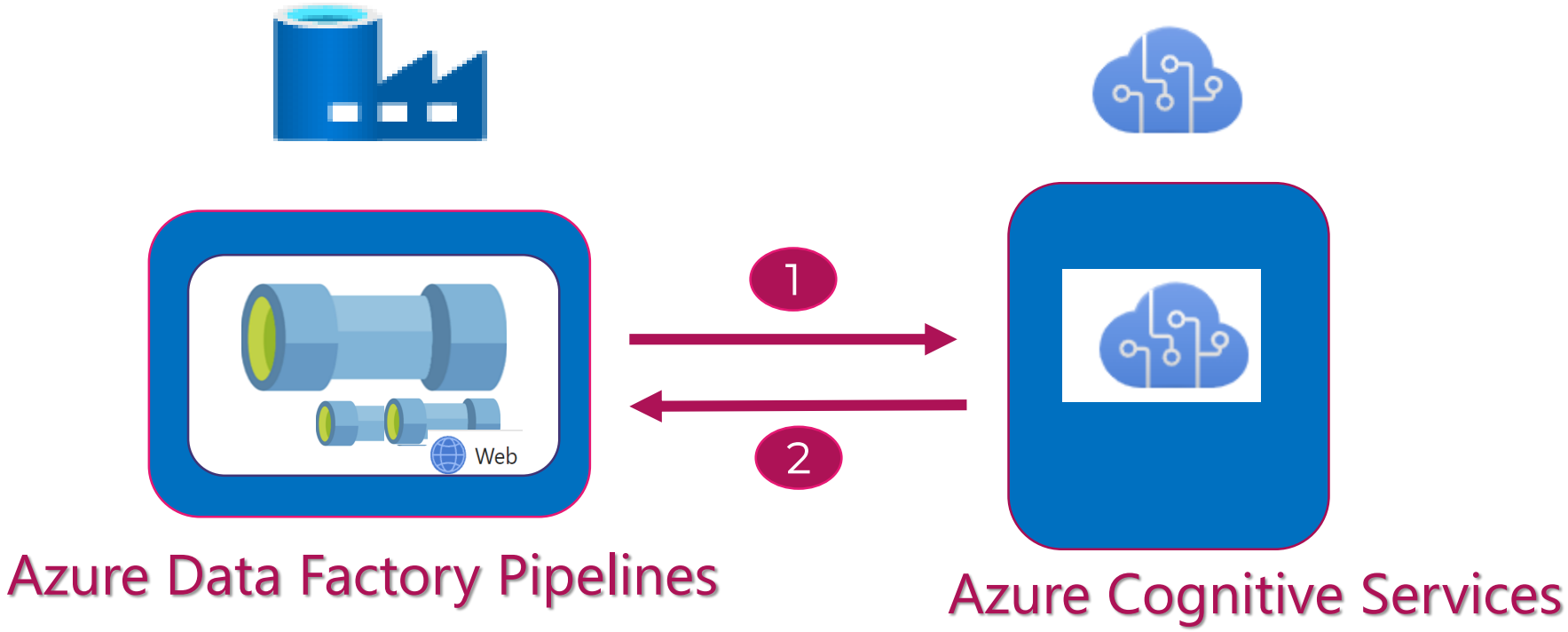
2. Azure Cognitive service for Language

Azure Cognitive Services Text Analytics

3. DEMO
Sentiment Analysis using ADF using Cognitive Services

Azure Cognitive Services Text Analytics

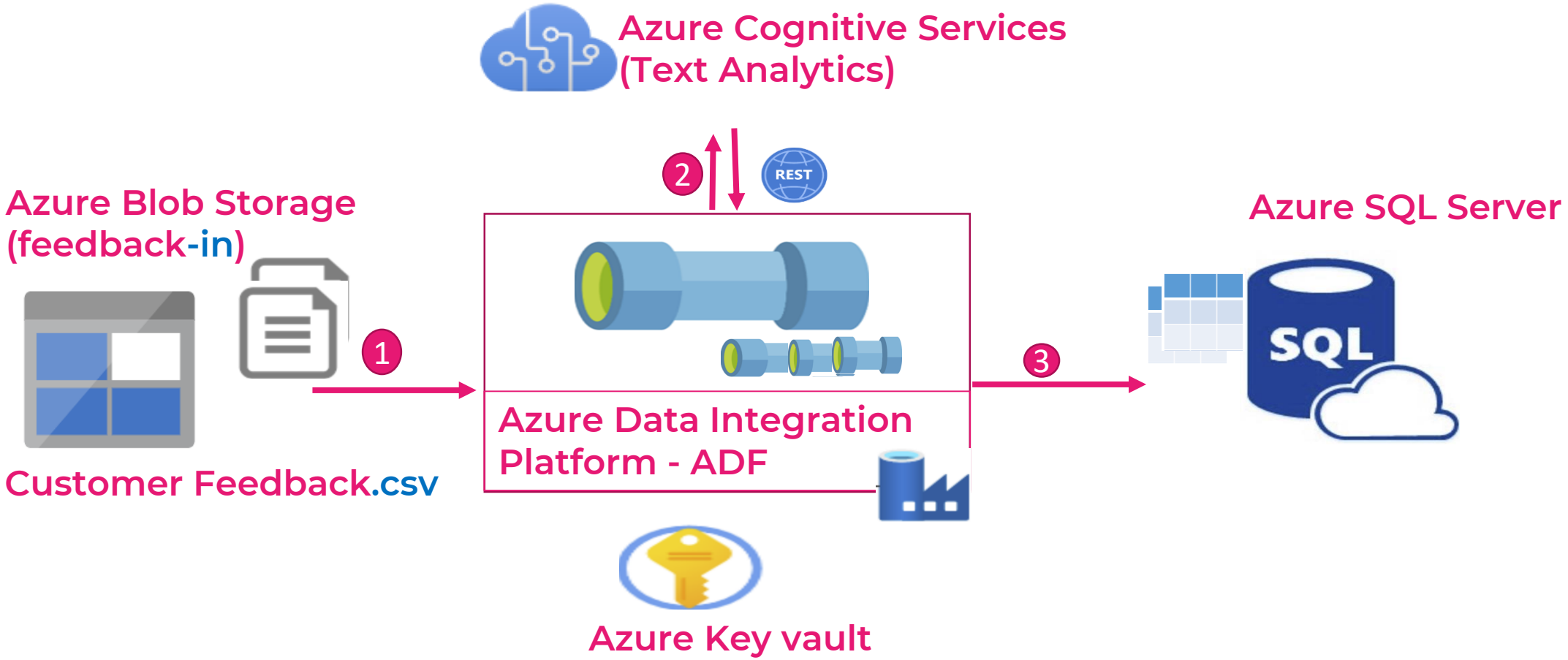
How Azure Cognitive Service integrate with ADF?



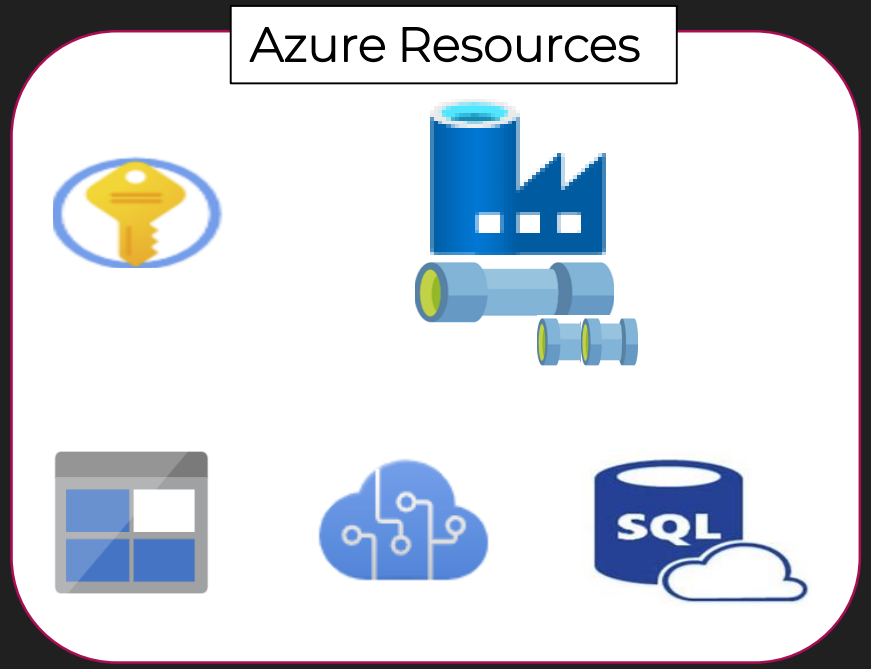
Problem Statement

- ✓Existence - ADF, Azure SQL Server and Azure Blob Storage
- ✓Sentiment Analysis
- ✓Without Data Science Expert
- ✓No Code Low Code
- ✓ASAP

Solution


Azure Cognitive Services
(Text Analytics)
2
REST
Azure Blob Storage
(feedback-in)
1
Azure Data Integration
Platform - ADF
3
Azure SQL Server
SQL
Customer Feedback.csv
Azure Key vault

Azure Resources



Key Takeaway

Azure Data Factory

- ✓ Data Movements
- ✓ Data Transformation
- ✓ Orchestration
- ✓ Automation
- ✓ Easy to Build Data Integration solution
- ✓ Serverless and Azure PaaS
- ✓ Easy to integrate

Azure Cognitive Services

- ✓ It summarized big documents and provide sentiments
- ✓ Understand common topics and trends
- ✓ A wide range of languages
- ✓ A Gain deeper understanding about your customer sentiments

DEMO

- ✓ Read Feedbacks from Blob storage
- ✓ Apply sentiment analysis on each feedback
- ✓ Apply transformation and store data to Azure SQL Table
- ✓ Store result to Azure SQL Server

Thank you

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