



Azure Data Factory, Azure Logic Apps and Power BI for everyone!!!

Regular 60 minute session

Thu 7th April 06 PM

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- Speaker @ Events and Conferences



Your contacts

- Linkedin:
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- Slideshare:
[Home · alpaBuddhabhatti/PowerBI-UK-User Group Wiki \(github.com\)](#)
- GitHub:
[alpaBuddhabhatti/PowerBI-UK-User Group at ADF \(github.com\)](#)



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Agenda

1. Azure Data Factory (ADF) Overview

Demo – ADF Quick Tour !!!

2. Azure Logic Apps Overview

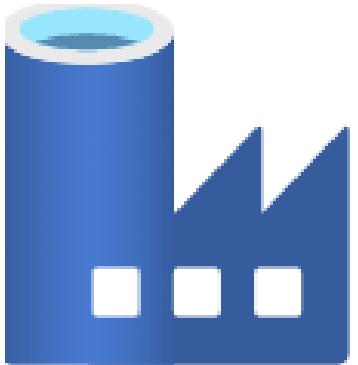
Demo – Azure Logic Apps Tour!!!

3. Power BI Overview

4. DEMO –

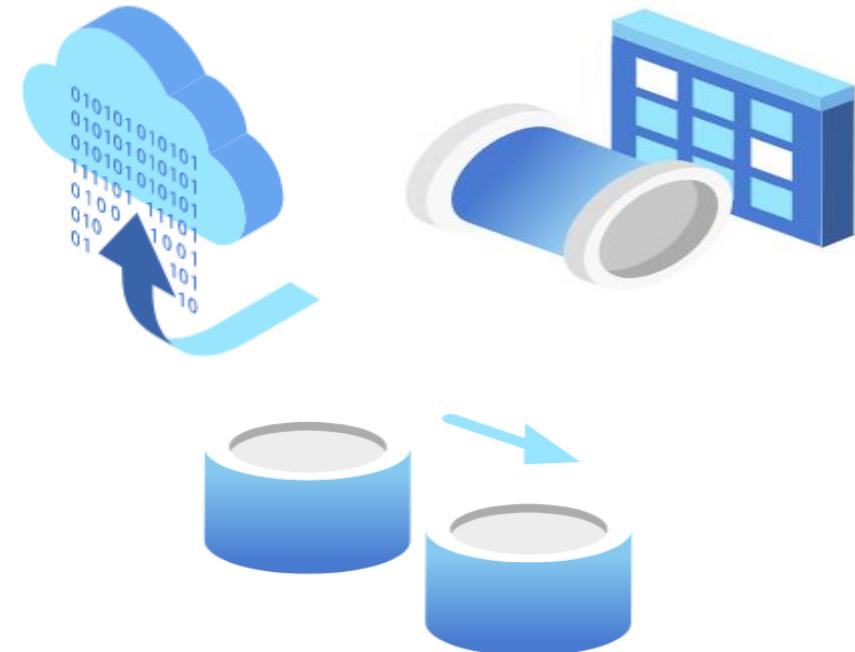
Refresh Power BI Dataset using Azure
Data Factory & Logic Apps

1. Azure Data Factory (ADF)



What is Azure Data Factory(ADF)?

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



What is Azure Data Factory(ADF)?

- ✓ Azure PaaS Service
- ✓ It is Serverless
- ✓ Only pay for what you have use
- ✓ Low-code and no-code Solutions
- ✓ Easily Integrate with other Azure Services



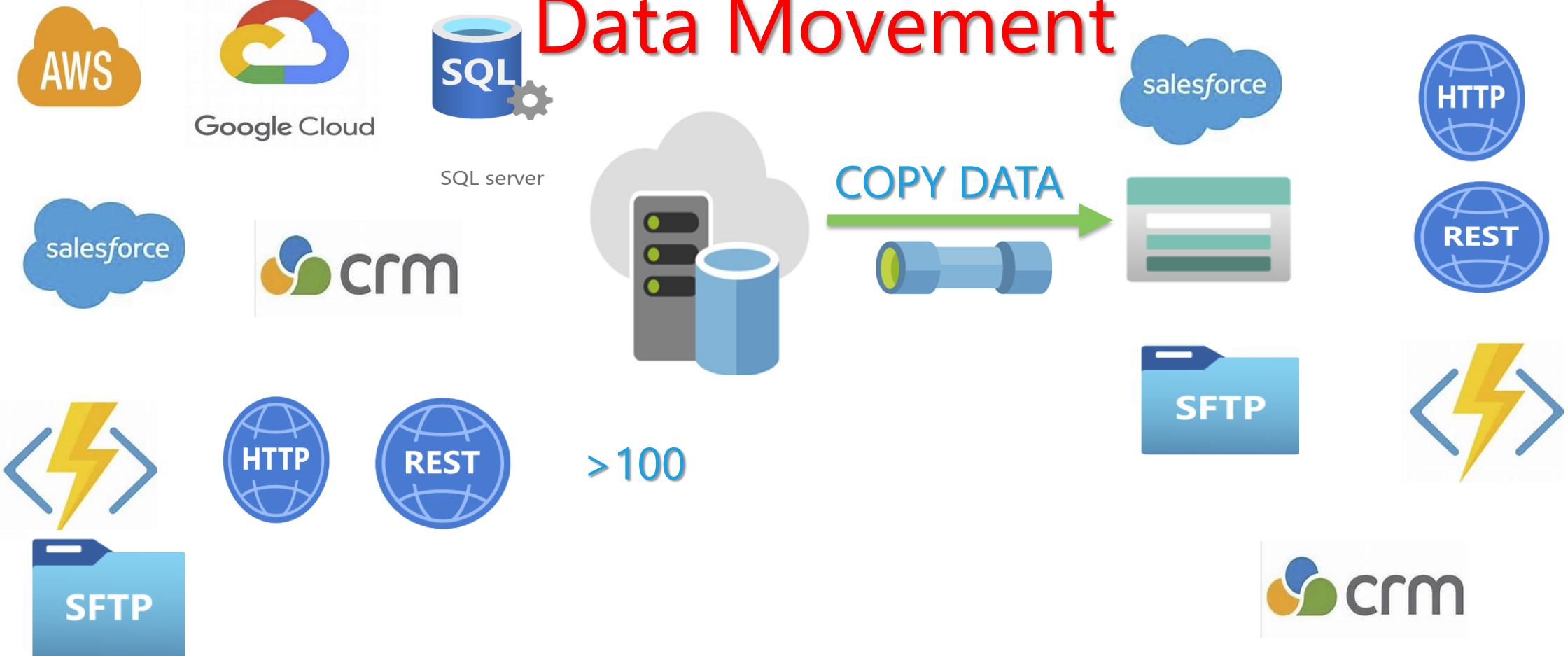
What are Key Components of ADF?

- 1 Linked services
- 2 Datasets
- 3 Activities
- 4 Pipelines
- 5 Triggers



What can you do in ADF?

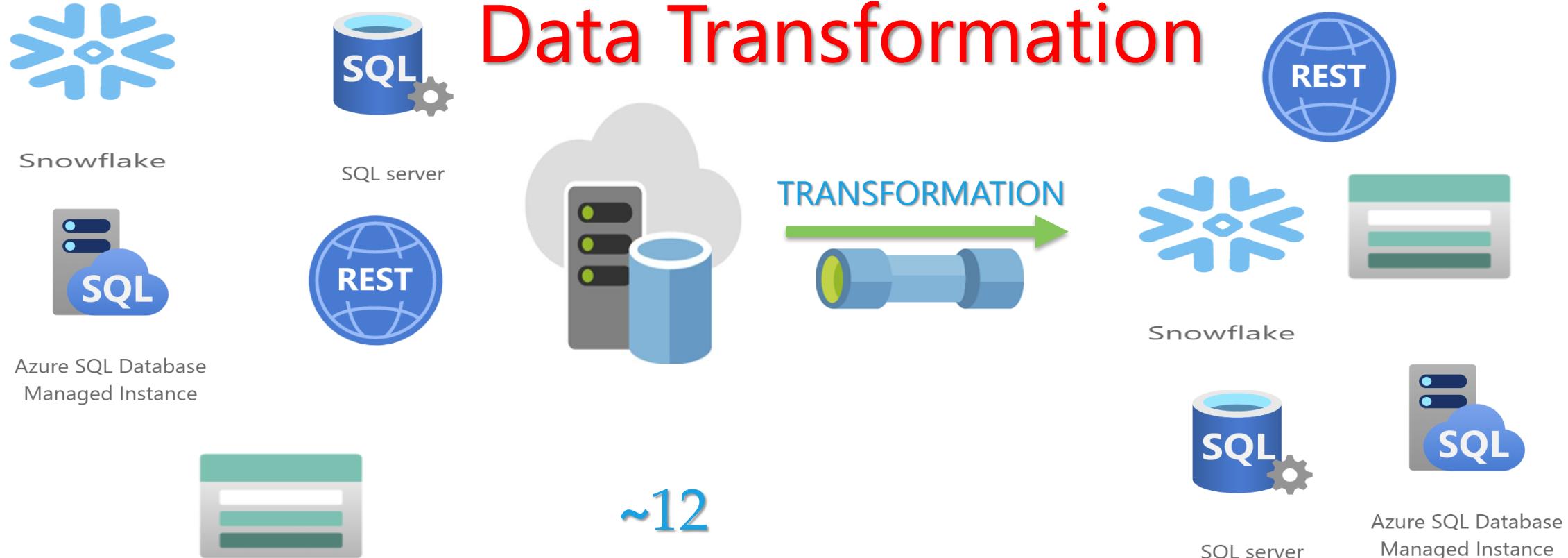
Data Movement



[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
- ✓ Git Integration built in
- ✓ Monitor
- ✓ Manage

{ JSON }

 Azure DevOps Git

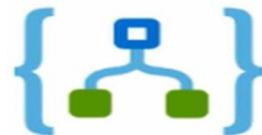
 GitHub



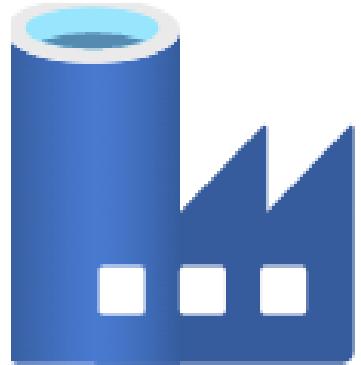
What can you do in ADF?

Trigger pipeline

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



DEMO



Lets have a Quick ADF Tour!!!

[PowerBI-UK-User Group/Azure Data Factory.docx at main · alpaBuddhabhatti/PowerBI-UK-User Group \(github.com\)](#)

2. Azure Logic Apps Overview



What is Azure Logic Apps?

It is a cloud-based platform for creating and running automated workflows that integrate your apps, data, services, and systems



Few example:

- ✓ Schedule and send email notifications
- ✓ Move uploaded files from an SFTP or FTP server to Azure Storage

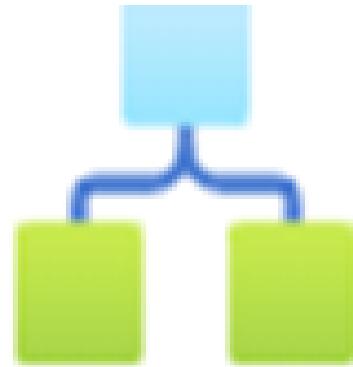
What is Azure Logic Apps?

- ✓ It provides a cloud based serverless engine (Hosting, Scaling, Managing, Monitoring, and Maintaining solution)
- ✓ Pay for what it has used for
- ✓ No code or Low code Solution
- ✓ 200+ connectors for expansion
- ✓ Create your Custom connectors

<https://docs.microsoft.com/en-us/azure/logic-apps/quickstart-create-first-logic-app-workflow>



DEMO



Azure Logic Apps Quick Tour!!

[PowerBI-UK-User Group/Azure Logic Apps.docx at main · alpaBuddhabhatti/PowerBI-UK-User Group \(github.com\)](#)

3. Power BI Overview



What is Power BI?

- ✓ Collection of software services, apps, and connectors
- ✓ Data can be in
 - Excel spreadsheets
 - Cloud
 - On-premises
- ✓ Connect to data sources
- ✓ Model the data
- ✓ Visualize
- ✓ Share and collaborate

[What is Power BI? - Power BI | Microsoft Docs](#)



Power BI Components

1

Power BI Desktop

- ✓ Windows Application
- ✓ Report authoring tool
- ✓ Create reports (connect to data, apply data transformations, create a data model)

2

Power BI Service

- ✓ Dashboards and Apps
- ✓ Sharing and collaboration
- ✓ Dataflows

3

Power BI mobile apps

- ✓ Consume reports via mobile apps on iOS, Android, or Windows mobile devices

4.DEMO

A Power BI imported dataset would be refreshed after populating data in Azure SQL Table



Problem Statements

- ✓ Power BI Desktop Imported Dataset
- ✓ Frequency of refreshing dataset more than 48 times per day

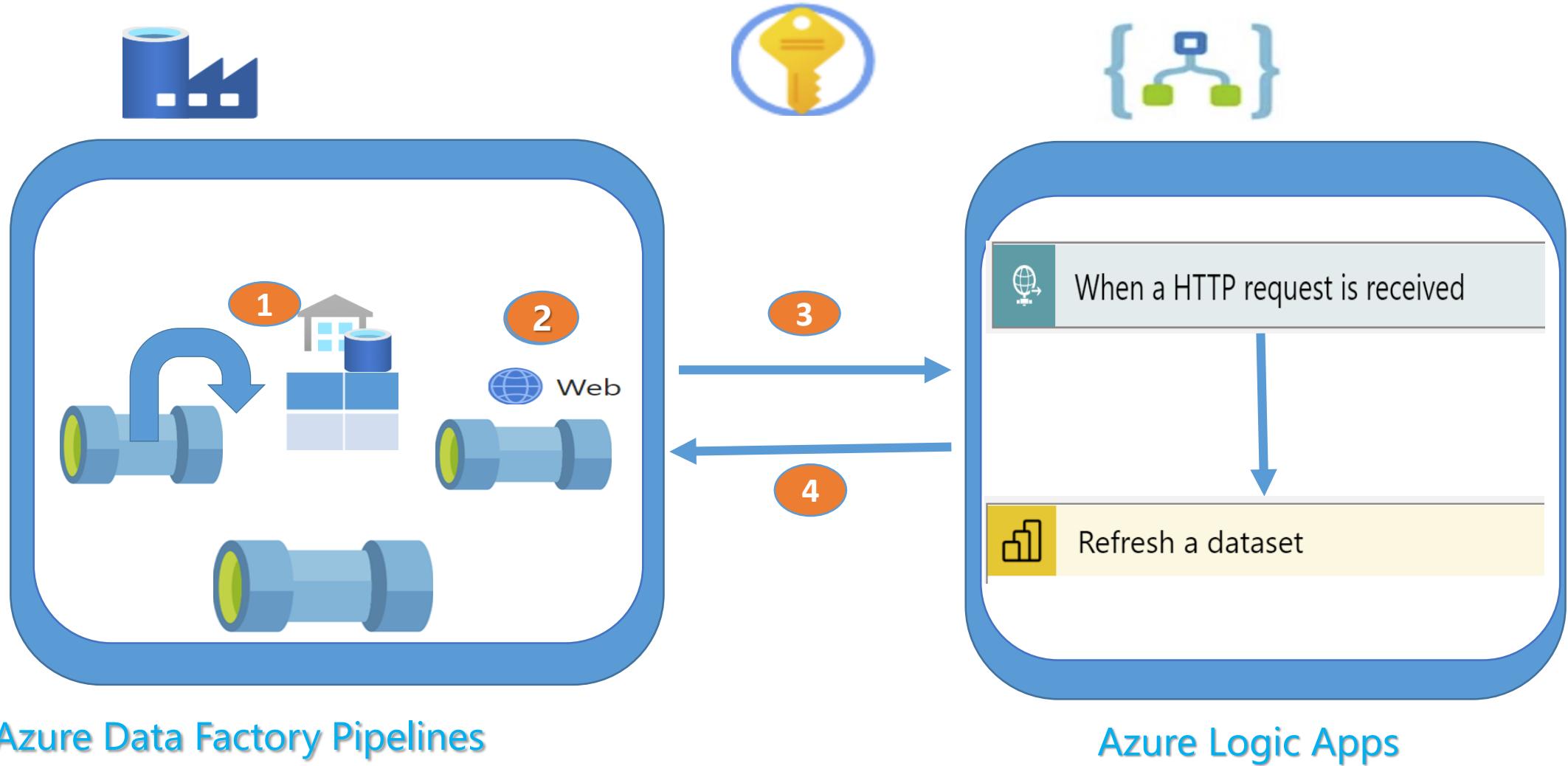
OR

- ✓ Power BI Dataset should only updated when your Source data changed or Data warehouse populated

OR

- ✓ Refresh your dataset as part of Orchestration
- ✓ Azure Data Factory Pipelines Or Logic Apps

High Level Solution Design



Resources

Scenarios :

Refreshing Power BI Imported Dataset as soon as data arrived in Azure SQL table.

Following Azure resources needed per environment

- ✓ Azure Resource group
- ✓ Azure Data factory
- ✓ Azure Logic Apps
- ✓ Azure SQL Server
- ✓ Azure Key Vault
- ✓ Power BI Dataset
- ✓ Power BI server

5. Tools

Tools

1. Azure Data Factory

Azure Subscription

- ✓ [Create your Azure free account today | Microsoft Azure](#)

2. Power BI Desktop

- ✓ powerbi.microsoft.com
- ✓ [Windows OS Power BI Service](#)

3. Power BI Service

- ✓ App.powerbi.com
- ✓ [Available with a free license](#)
- ✓ [Pro license only required for some more advanced scenarios](#)

Conclusion

1. Azure Data Factory

- ✓ Cloud based Data Integration Service
- ✓ Azure Platform as Services (PaaS)
- ✓ Serverless
- ✓ No code, Low code Solution
- ✓ Operationalized, Parameterized and Orchestra pipelines
- ✓ ETL or ELT

2. Azure Logic Apps

- ✓ It is Azure Integration Services.(Apps, Data, Systems, service etc.)
- ✓ Azure Platform as Services (PaaS)
- ✓ Serverless Engine
- ✓ No code, Low code Solution
- ✓ Automated Workflow

Conclusion

3. Power BI Overview

- ✓ Collection of software services, apps, and connectors
- ✓ Build Model
- ✓ Visualized
- ✓ Share

4. Refresh Power BI dataset

Power BI Imported dataset has been refreshed just after populating Azure SQL Table during ADF pipelines

Thank you !!!



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Questions !!!



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Useful links

<https://www.mssqltips.com/sqlservertip/5976/refresh-power-bi-dataset-from-azure-data-factory-part-1/>

<https://www.mssqltips.com/sqlservertip/5979/refresh-power-bi-dataset-using-azure-logic-apps-part-2/#:~:text=Debug%20the%20ADF%20pipeline%20to%20trigger%20the%20Logic,on%20the%20ellipsis%20to%20go%20to%20its%20settings.>

<https://www.moderndata.ai/2019/05/powerbi-dataset-refresh-using-adf/>

<https://www.moderndata.ai/2019/05/powerbi-dataset-refresh-using-adf/>

<https://datasavvy.me/2020/07/09/refreshing-a-power-bi-dataset-in-azure-data-factory/>