



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

Your Feedback

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2. For every 10 feedback forms we receive we will donate a sapling to the National Trust <https://www.nationaltrust.org.uk/features/plant-a-tree> and we want to plant enough to fill an area the size of a football pitch
3. To Improve Session



QR Code

URL <https://sqlb.it/?6991>

Alpa Buddhahatti

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Your contacts

- LinkedIn:
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Your sites

- Slideshare:
[Home · alpaBuddhabhatti/SQLBits2020 Wiki \(github.com\)](#)
- GitHub:
[alpaBuddhabhatti/SQLBits2020 at ADF \(github.com\)](#)



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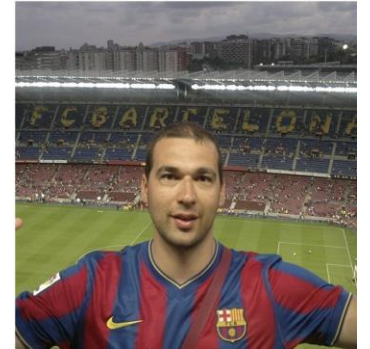
Microsoft Certified:
Azure Data Scientist
Associate
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Azure Developer
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Nikola Ilic

- I make music from the data!
- Independent consultant and trainer
- Barca fan



Your contacts



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<https://data-mozart.com>



PLURALSIGHT



Agenda

1. Azure Data Factory (ADF) Overview

Demo – ADF Quick Tour !!!

2. Azure Logic Apps Overview

Demo – Azure Logic Apps Tour!!!

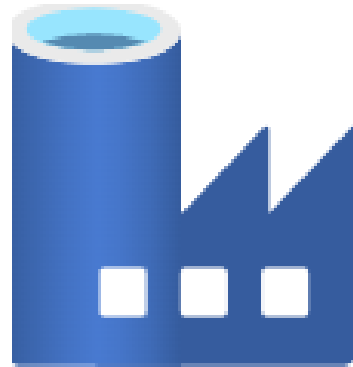
3. Power BI Overview

Demo – Power BI!!!

4. DEMO –

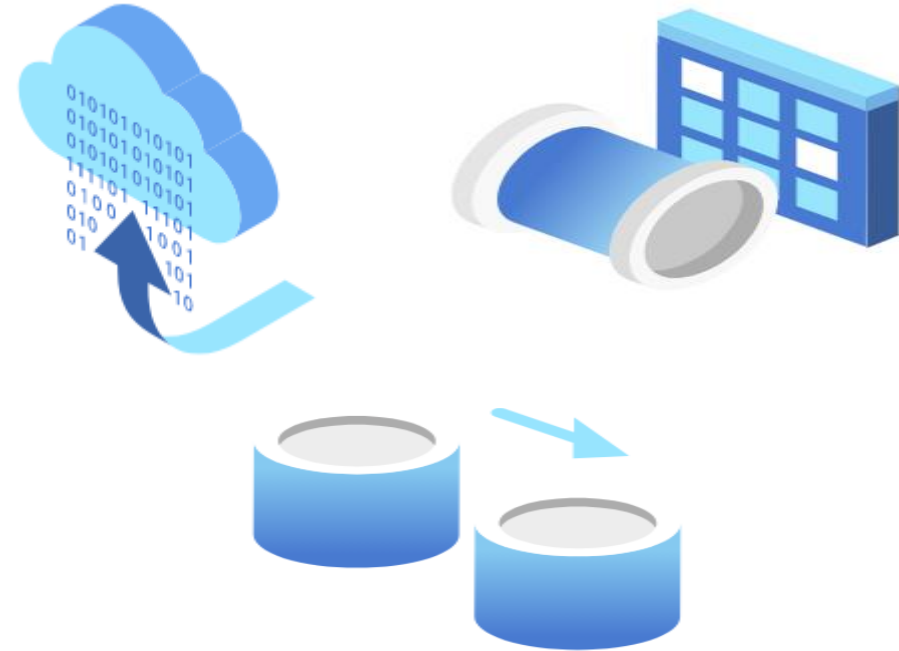
Refresh Power BI Dataset using Azure Data Factory & Logic Apps

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



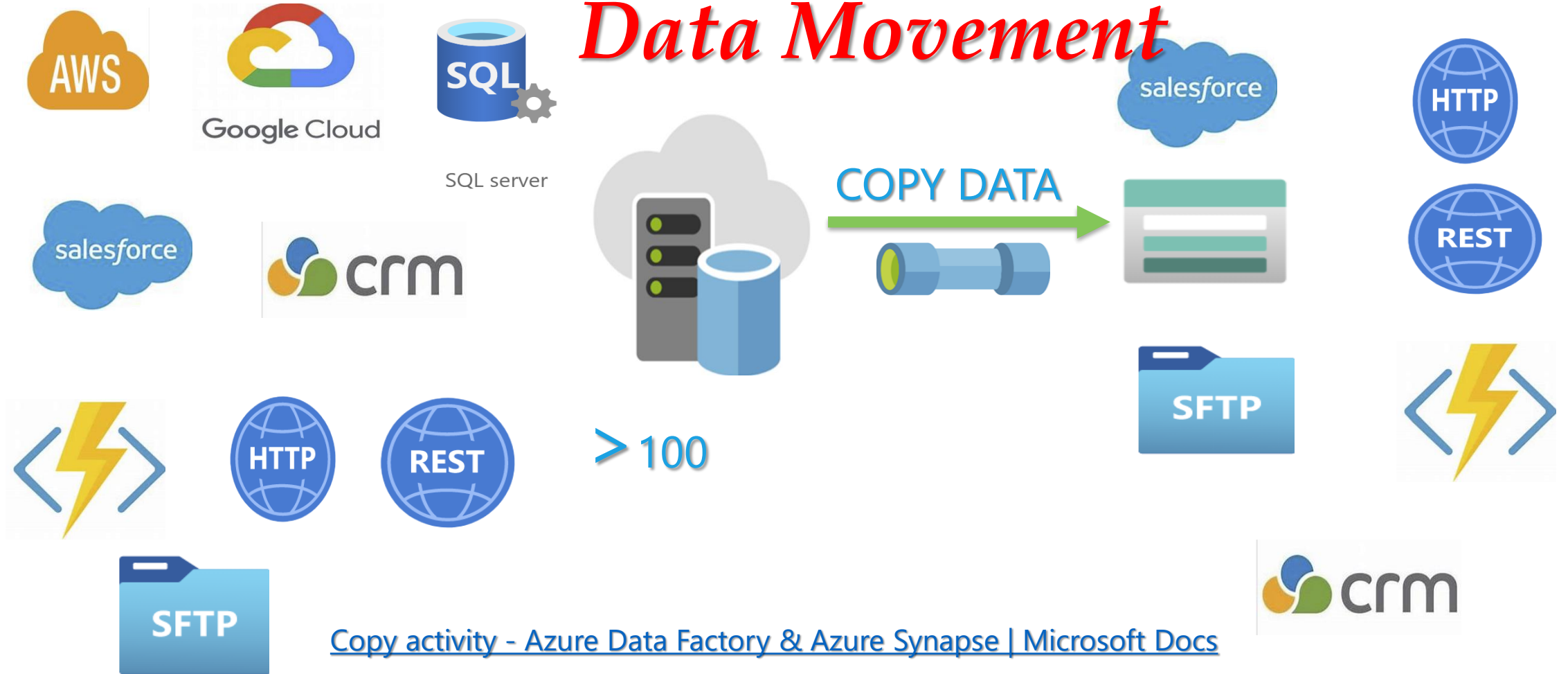
What are Key Components of ADF?

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



What can you do in ADF?

Data Movement



What can you do in ADF?



Snowflake



SQL server

Data Transformation



Azure SQL Database
Managed Instance



TRANSFORMATION



Snowflake



~12



SQL server



Azure SQL Database
Managed Instance

[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



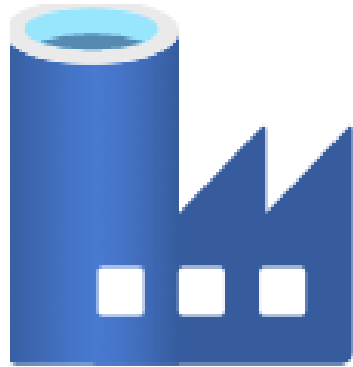
What can you do in ADF?

Trigger pipeline

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



DEMO



Lets have a Quick ADF Tour!!!

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

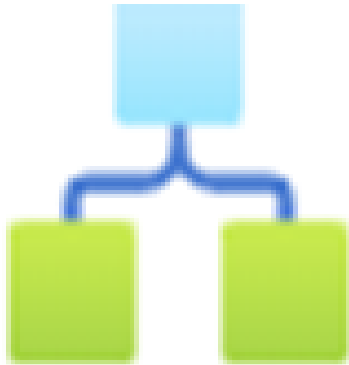
What is Azure Logic Apps?

- ✓ 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!!

3. Power BI Overview



What is Power BI?

- ✓ Collection of software services, apps, and connectors
- ✓ Desktop vs Service
- ✓ Data can be in
 - Excel spreadsheets
 - Cloud
 - On-premises
- ✓ Connect to data sources
- ✓ Model the data
- ✓ Enhance model with DAX
- ✓ 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, generate new columns, 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

DEMO



Let's have a Quick Power BI Tour!!!

4.DEMO

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



Problem Statements

- ✓ Azure Data Factory Pipelines Or Logic Apps
- ✓ Power BI Desktop Imported Dataset
- ✓ Frequency of refreshing dataset more than 48 times per day

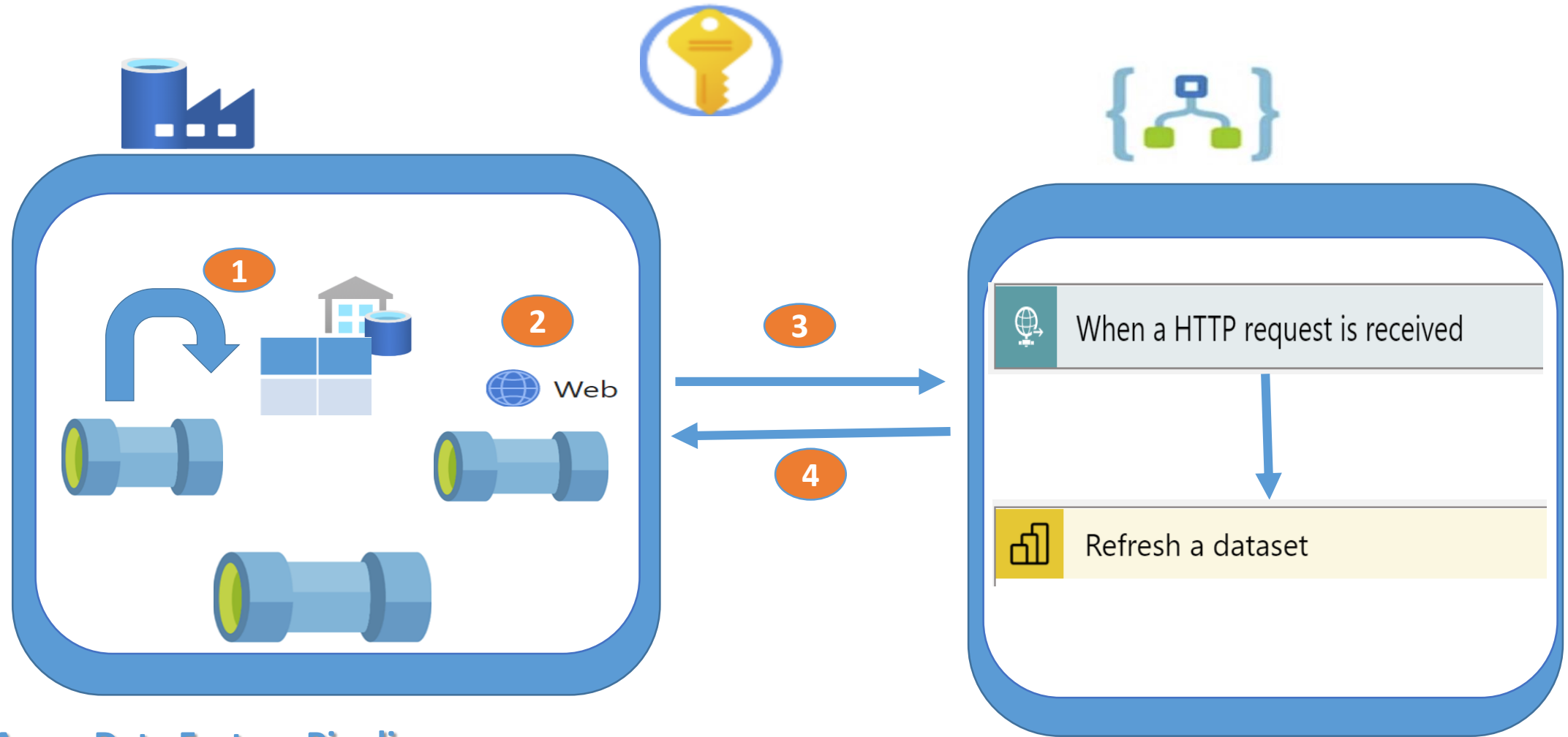
OR

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

OR

- ✓ Refresh your dataset as part of Orchestration

High Level Solution Design



Azure Data Factory Pipelines

Azure Logic Apps

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 and work flow
- ✓ ETL or ELT

2. Azure Logic Apps

- ✓ It is Azure Integration Services.(Apps, Data, Systems , service etc.)
- ✓ Azure Platform – as Service (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

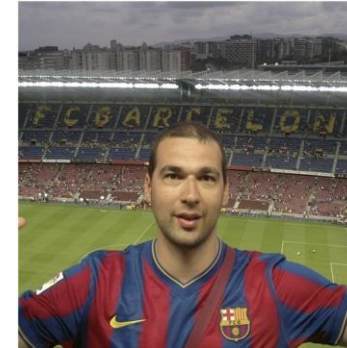
Thank you !!!



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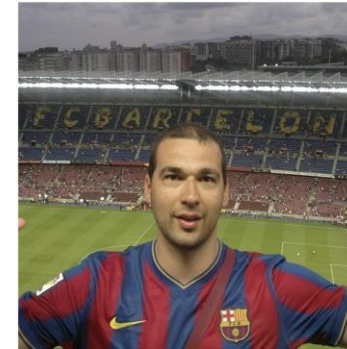
Questions !!!



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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/>