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KevOps for analytics solutions within the Microsoft Intelligent Data Platform

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Agenda

- Bio
- Intro to Azure DevOps
- Microsoft Intelligent Data Platform overview
- Native Git integration for various services
- Ways to perform CI/CD for various services
  - Database projects

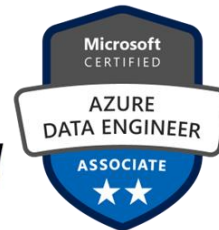- Yes, the session includes Microsoft Fabric

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Kevin Chant

- Data Engineering Manager in the Netherlands
- Worked in IT since Windows 95
- Experience in various sectors
- Various certifications, dual-category MVP

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2022

Microsoft CERTIFIED
AZURE DATA ENGINEER
ASSOCIATE

Microsoft CERTIFIED
DEVOPS ENGINEER
EXPERT

Azure DevOps

- Manages Application Lifecycle Management

- Collection of services

- Two main versions
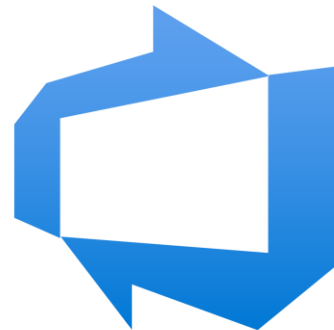
Microsoft Intelligent Data Platform

- Announced at Build 2022

- Collection of database, analytics and governance services

- Website demo

Analytics Services that contain native Git integration

- Azure Databricks

- Azure Synapse Analytics

- Microsoft Fabric (Azure DevOps only)

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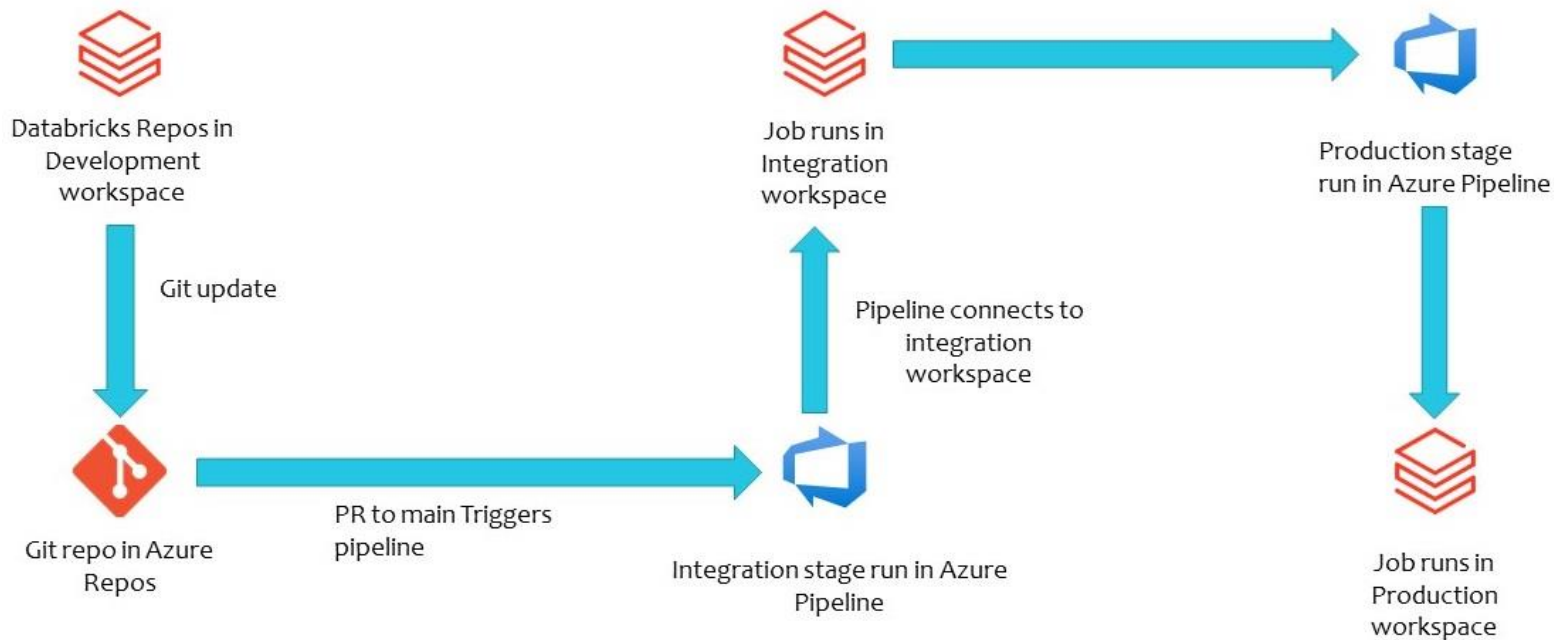Data Platform
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Performing CI/CD for Azure Databricks

- Two main methods:

- Copy repository across workspaces

- Create a whl file to be deployed

Copy repository method

Create a whl file method

Dev Databricks Repos using Dev cluster

Git request

Git repo in Azure DevOps

Triggers Build pipeline

Performs defined unit tests and if successful builds wheel

Unit Tests passed

Python Wheel file published in Azure Artifacts service.

Integration stage run in Azure Pipelines

Connects via Databricks token

Job runs in Integration workspace

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Performing CI/CD for Azure Synapse Analytics

- Git integration for workspace similar to ADF

- Excludes Analytics Pools (SQL & Spark)

- For SQL Pools can use Database Projects

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CI/CD using Database Projects

- SQL Family (Server, Azure DB, etc)

- Dedicated SQL Pools

- Serverless SQL Pools (with limitations)

- Microsoft Fabric Data Warehouse - Demo

CI/CD using DBUp

- SQL Family (Server, Azure DB, etc)

- Dedicated SQL Pools

- Serverless SQL Pools

Microsoft Fabric Git integration

- Allows synchronize supported items with a Git repository.

- Supports Azure DevOps repositories

- Requires Fabric or Power BI premium license

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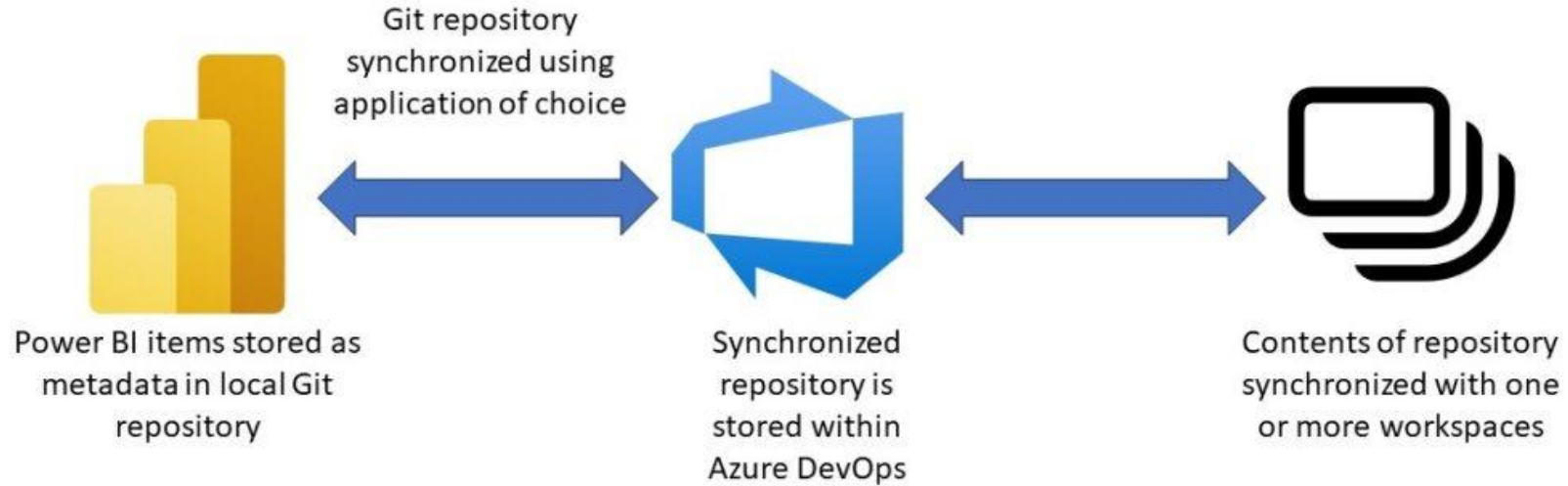Microsoft
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Working with Power BI Projects

- Power BI Projects in Preview

- Stores metadata in various files

- Can be used with Microsoft Fabric Git integration

- Multiple workspaces demo alert

Using Power BI projects and Microsoft Fabric Git integration together

Git repository synchronized using application of choice

Power BI items stored as metadata in local Git repository

Synchronized repository is stored within Azure DevOps

Contents of repository synchronized with one or more workspaces

Deployment pipelines

Power BI report in Dev workspace → Power BI report in Test workspace → Power BI report in Production

Questions

Feedback

https://sqlkonferenzeval.azurewebsites.net/227042630095293

Thank you

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Thank you very much for your attention.

Vielen Dank für Eure Aufmerksamkeit.