



SQLSATURDAY

#1103 - Jacksonville, FL May 3rd, 2025

Microsoft Fabric and Azure Data Factory Revealed

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#SQLSatJax



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Monthly Meetings
3rd Wednesday of each month
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SQL Clinic

**Get your SQL questions
answered here by our SQL
experts during our breaks!**

(Across from Registration)

#SQLSatJax

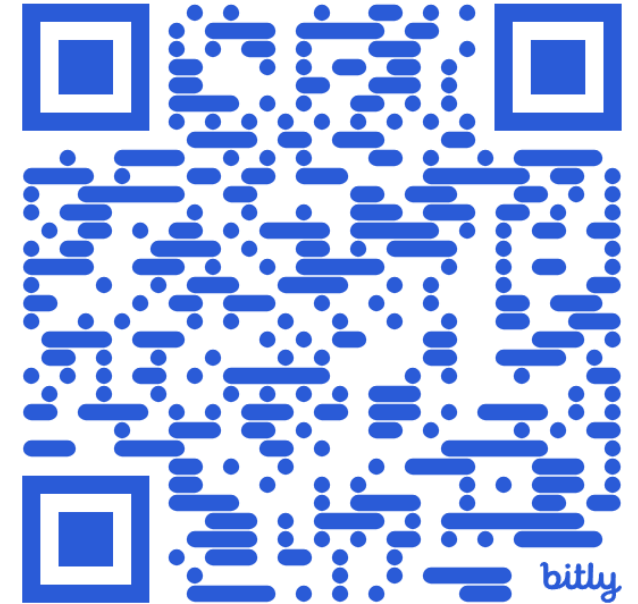


501 Legion Charitable Donation For Housing

Thank the 501 Legion for Supporting Our Event!

JSSUG Will Match Donations up to \$500

Donation Bucket on Registration Table



Our vision for Ft. Barnabas is to one day be a bastion of hope and stability in guiding veterans on their path to stability. Fort Barnabas will be constructed as a mixture of portable tiny homes, or "Barnabas Bungalows," and brick-and-mortar condo-style family homes. <https://operationbarnabas.com/get-involved/>

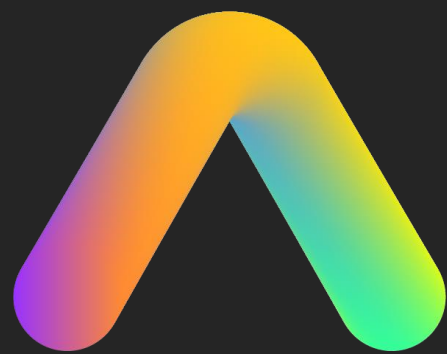
Session Evaluations

Your feedback is important to us!

Please fill out and hand to speaker after the session!

Event Evaluation

Fill out event evaluation card in your bag and visit all sponsors to be entered to win an Xbox Series X – (Must be present to win)



PASS

Data Community Summit

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passdatacommunitysummit.com

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- 25+ years with SQL Server
- Specializing in scalability, availability and performance
- App, Data & Solutions Arch



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Agenda

- Data Engineering Primer
- Intro to Data Factory (Azure & Fabric)
- Components – Defined & Compared
- Demo: Data Factory in Fabric
- Q & A

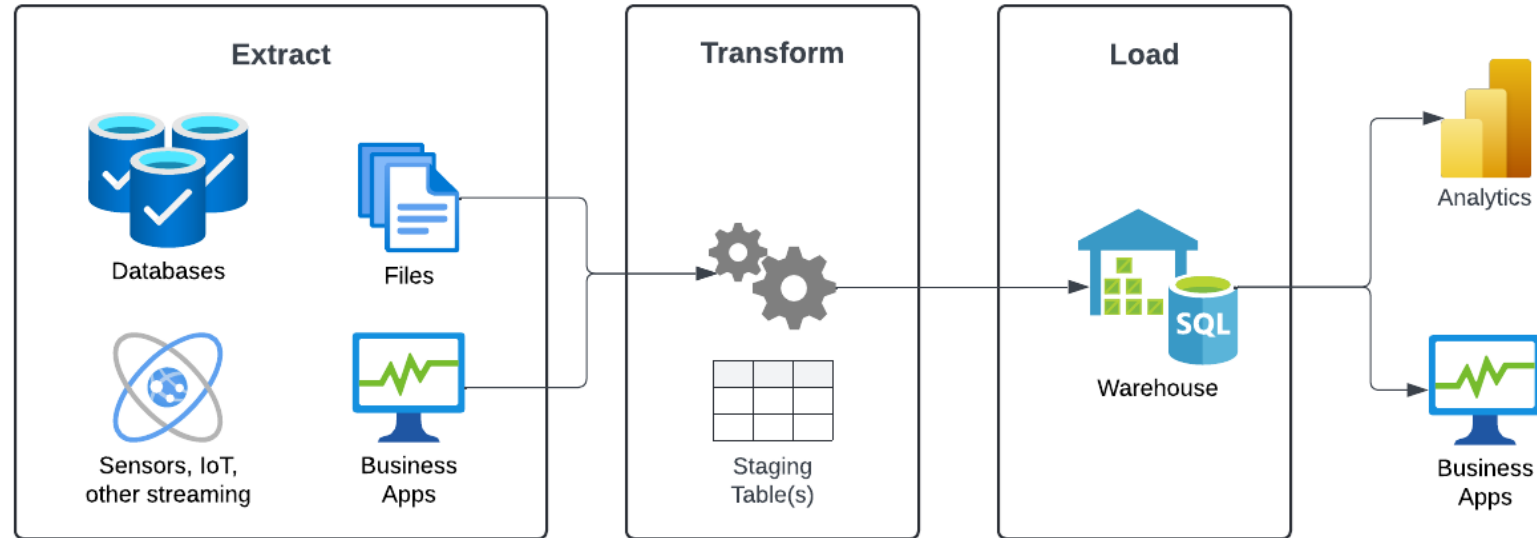
Data Engineering Primer

Data Engineering Terminology

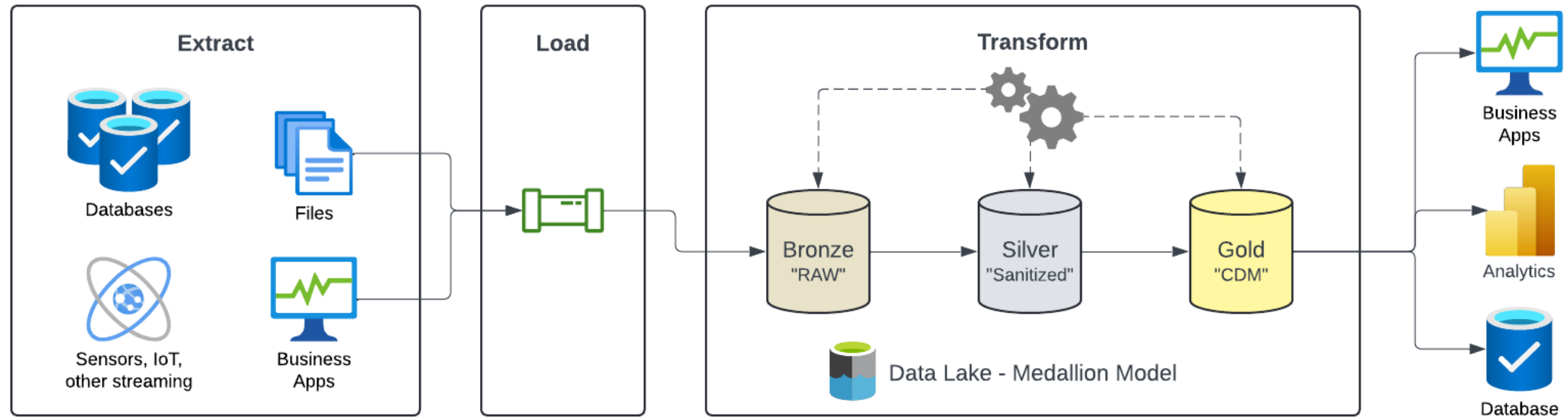
- Extract, Transform & Load (ETL)
- Extract, Load & Transform (ELT)
- Data Mapping & Wrangling
- Relational Databases
- Data Lake & Medallion Model

ETL vs ELT

ETL



ELT



Intro to Data Factory

What is Data Factory?

- Microsoft Data Platform offering
 - Runs in the Cloud but Hybrid with “on-prem” features
- Create pipelines to Copy and Transform your data
 - ETL (Extract Transform and Load)
 - ELT (Extract Load and Transform)
- Numerous integrations & connectivity options

Two Flavors

- Azure Data Factory (ADF) – Established
 - Platform as a Service (PaaS) offering
 - Additional integrations and configurability
- Data Factory in Fabric (“DFF”) – Recent
 - Software as a Service (SaaS) offering
 - Fabric service & interface with reduced learning curve

Intro to Microsoft Fabric



Microsoft Fabric



Data
Factory



Data
Engineering



Data
Warehouse



Data
Science



Real-Time
Intelligence



Power BI



Partner &
Industry
workloads



Copilot in Fabric



OneLake



Microsoft Purview



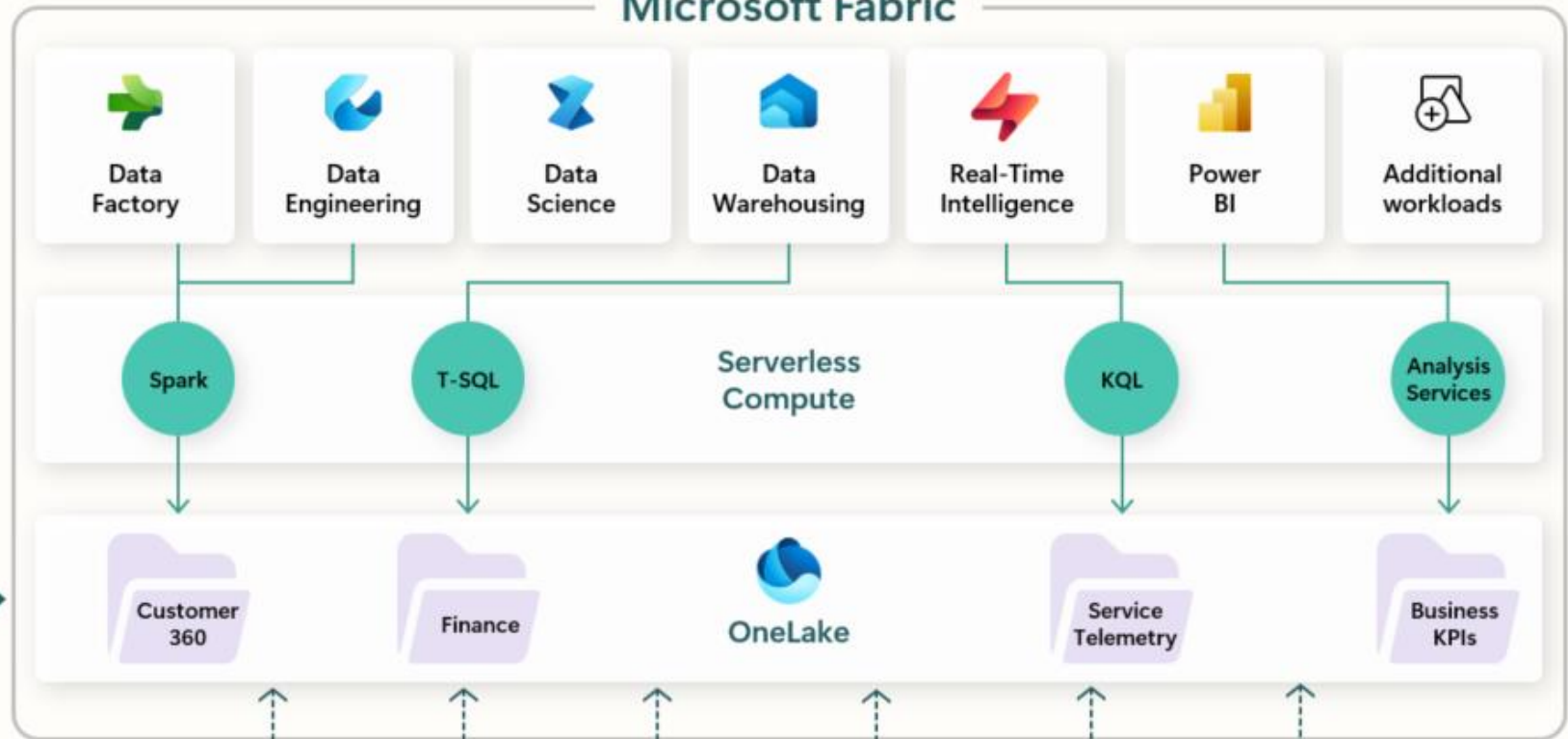
Fabric compute engines

Microsoft Fabric

Mirroring



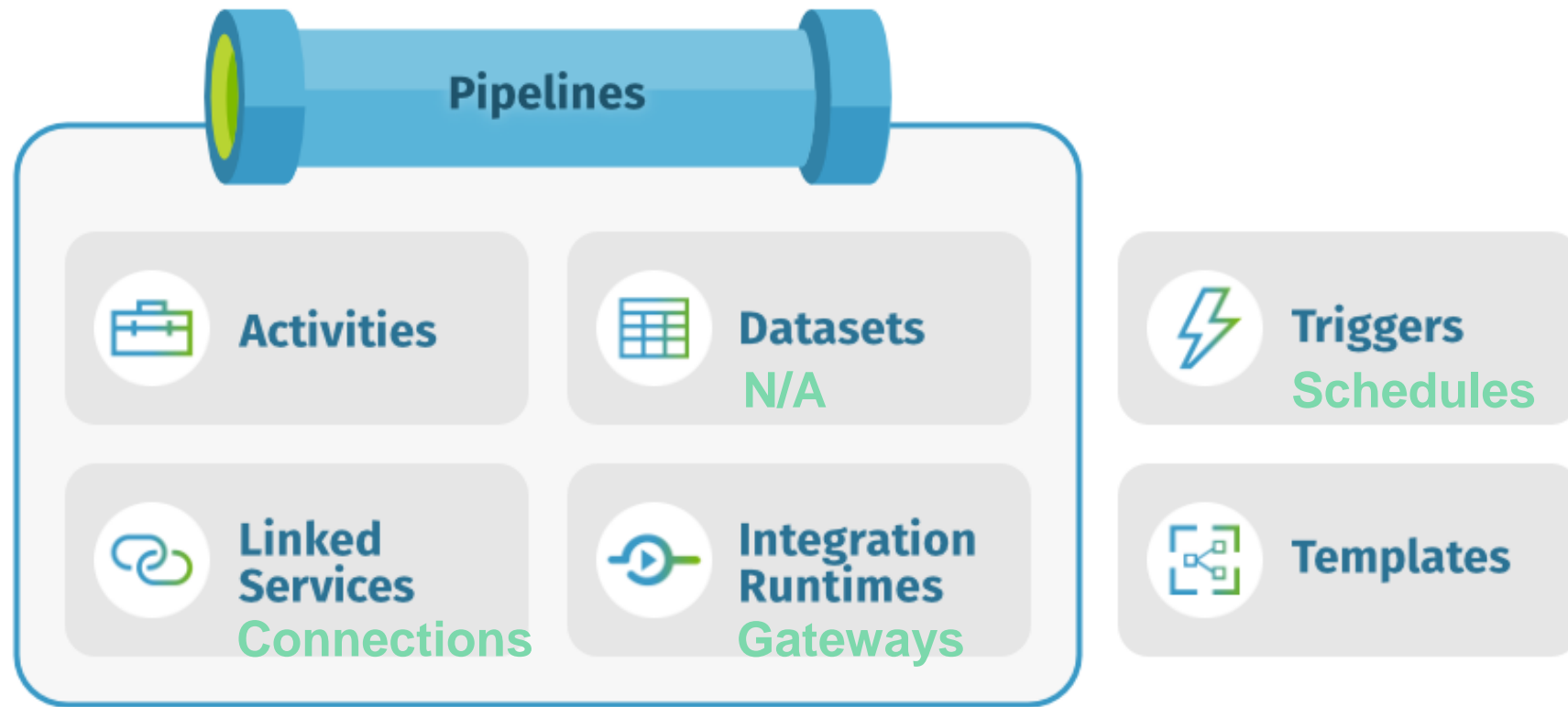
Add or manage data from your cloud data warehouses and databases



Shortcuts

Data Factory Components

Components of Data Factory



Credit: cathrinewilhelmsen.net

Components of Data Factory

- Data Factory * Fabric Equivalent
- Pipeline | Data pipeline
- Activities
- Mapping Dataflow | Dataflow Gen2
- Datasets | (N/A)

Components of Data Factory

- Templates * Fabric Equivalent
- Linked Service | Connections
- Triggers | Schedules
- Self-Hosted Integration Runtimes |
On-premises Data Gateway

Components – “Data Factory”

- Environmental Boundary | Per Workspace
- Container to hold all other components
- Deploy per environment (Dev, QA, Prod) | Per Workspace
- Security (IAM) Boundary
- Integrates with Git and Azure DevOps
- Deployable as ARM template | Deployment Pipelines

Components – Pipelines

- Definition of executable ETL/ELT workflow
- Similar to an SSIS package
- Canvas designer interface
- Collection of units of work (Activities)
- Create new or from a Template

Components – Linked Services / Connections

- Data source / destination connection objects
- ADF: 110 supported connectors
- DFF: 40 supported connectors (13 source only)

Ref: <https://learn.microsoft.com/en-us/fabric/data-factory/connector-parity>

as of 5/2/2025

Components – Integration Runtimes

- Infrastructure to run Activities on
- Three types:
 - Azure Hosted | Fabric Capacities
 - Self-Hosted | On-premises + Virtual network Gateways
 - Azure-SSIS (ADF only)

Components – Triggers / Schedules

- Define when to execute your Pipelines
- Use a recurring schedule, interval or event based
- Specific Day & Time, or manually (UI or API)
- Tumbling Windows (ADF only)
- Storage Event Triggers – ADLS Gen2 & General Purpose v2
- Event Grid (ADF only)

Components – Templates

- Created from your own Pipeline
- Samples available from Microsoft

DEMO:

Data Factory in Fabric

Session evaluation

Your feedback is important to us

Please fill out your session evaluation and hand to speaker!

Thank you

Presentation Landing Page & Resources:

[Liktorius.com/go/SQLSAT1103](https://liktorius.com/go/SQLSAT1103)

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