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Cloud Data Governance and Catalog – Databricks Notebook Case Study

Srinivasa Gopal - Principal Technologist, Customer Success

Sachin Jain - Principal Technologist, Customer Success

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Housekeeping Tips

- Today's Webinar is scheduled for 1 hour
- The session will include a webcast and then your questions will be answered live at the end of the presentation
- All dial-in participants will be muted to enable the speakers to present without interruption
- Questions can be submitted to "All Panelists" via the Q&A option and we will respond at the end of the presentation
- The webinar is being recorded and will be available on our INFASupport YouTube channel and Success Portal - where you can download the slide deck for the presentation. The link to the recording will be emailed as well.
- Please take time to complete the post-webinar survey and provide your feedback and suggestions for upcoming topics.

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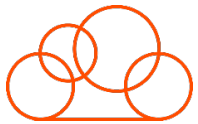
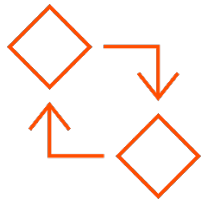
Feature Rich Success Portal



Bootstrap trial and POC Customers

Enriched Customer Onboarding experience



Product Learning Paths and Weekly Expert Sessions

Informatica Concierge

Tailored training and content recommendations

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More Information

Success Portal

https://success.informatica.com

Communities & Support

https://network.informatica.com

Documentation

https://docs.informatica.com

University

https://www.informatica.com/in/services-and-training/informatica-university.html

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Safe Harbor

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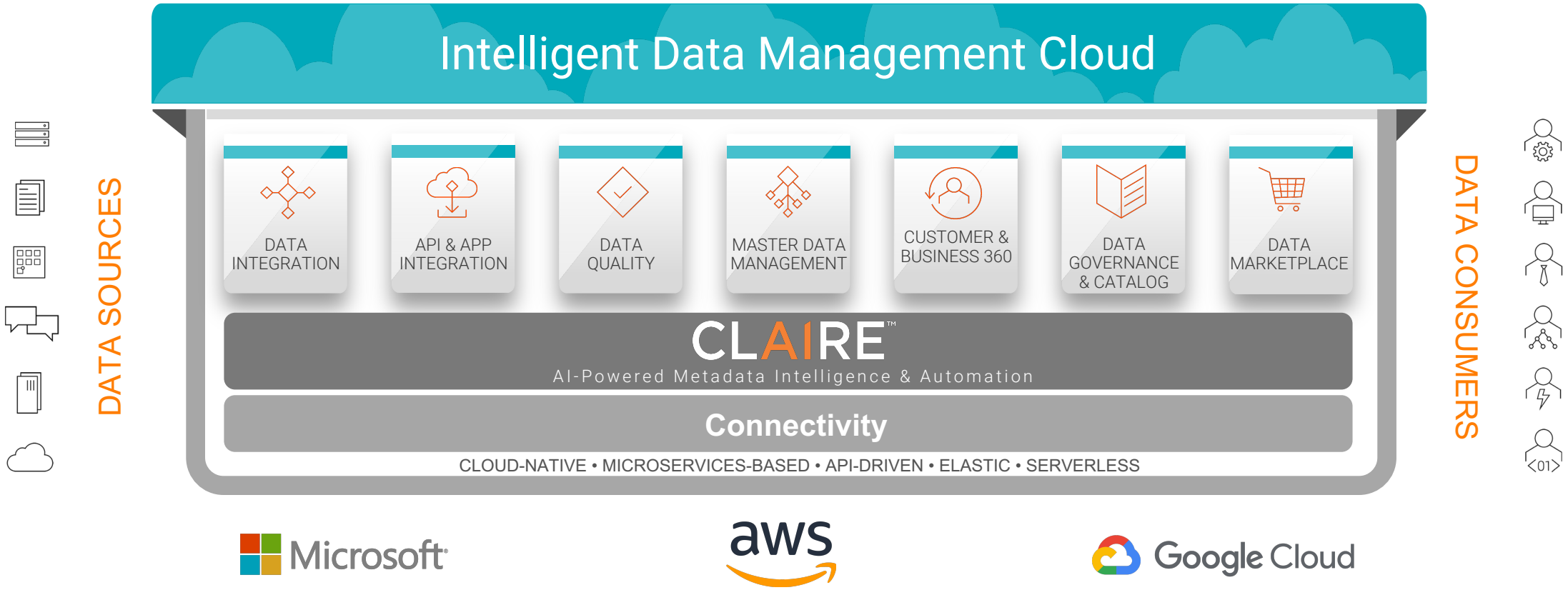
Agenda

1. Overview of CDGC
2. Databricks Architecture Patterns
3. Databricks Scanners
4. Databricks Metadata
5. Demo
6. Q&A

Overview of CDGC

Intelligent Data Management Cloud



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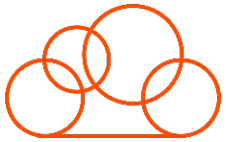
Intelligent Data Management Cloud

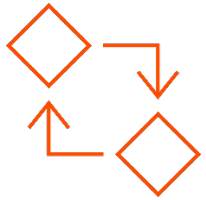
A SaaS solution that drives the success of your Cloud Data Lake and Data Warehouse implementation—provides data context, lowers privacy risks, builds trust and delivers insight



SaaS
Cloud Native

Data **Lineage**, Profiling, Discovery, Source Context

Glossary, **Business Context**, AI Models, DQ & Privacy Standards



Integrated with Cloud Catalogs, Integrated with CDQ

Business User, Navigation **Experience**

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Cloud Data Governance and Catalog

Core Solution Tenets

SERVERLESS

Serverless compute to work at any scale—there is no infrastructure to deploy or manage

MULTI-CLOUD

Works across all cloud ecosystems and on-premises data sources

INTEGRATED

Deep Integration with data management and data consumption tools

AI

Uses state of the art machine learning and intelligence to ensure end user productivity

OPEN & EXTENSIBLE

API-based access to metadata repository and functions

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Databricks Architecture Patterns

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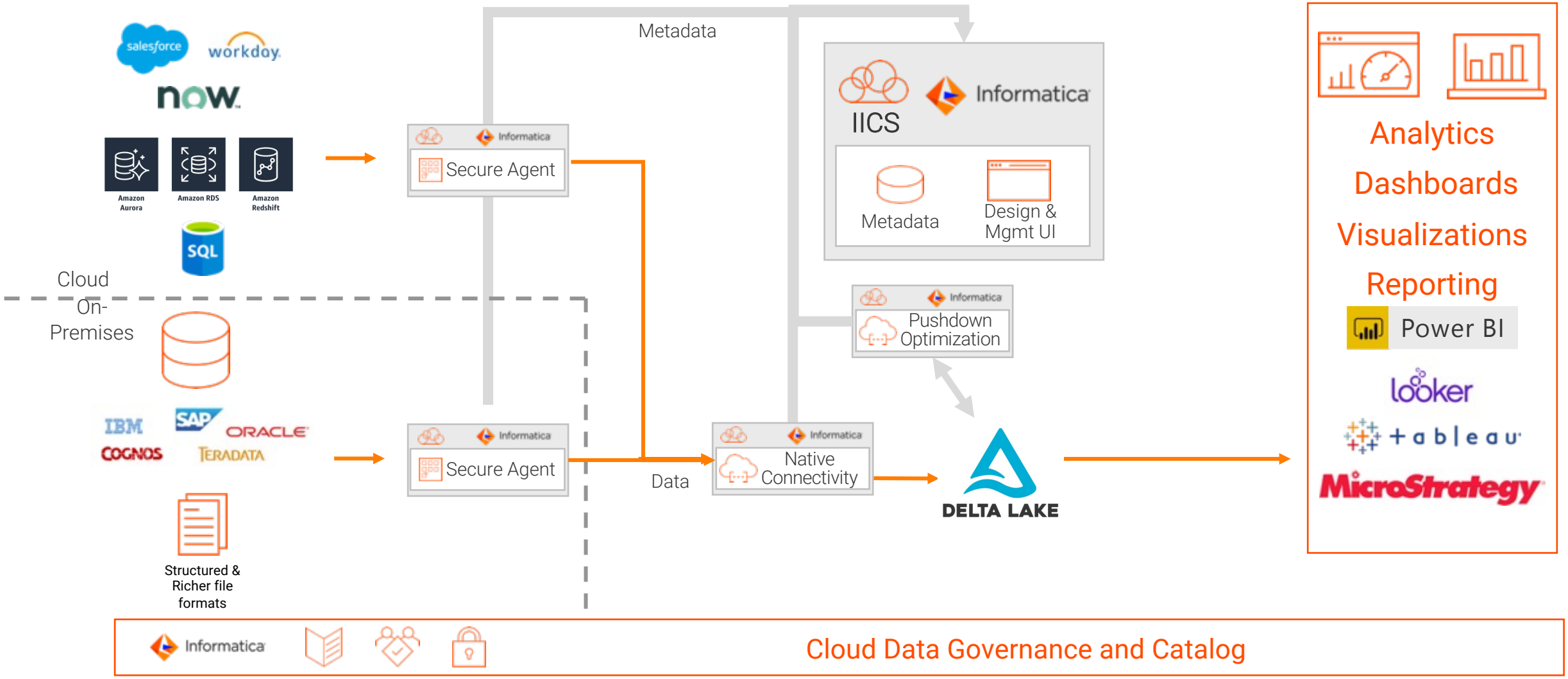
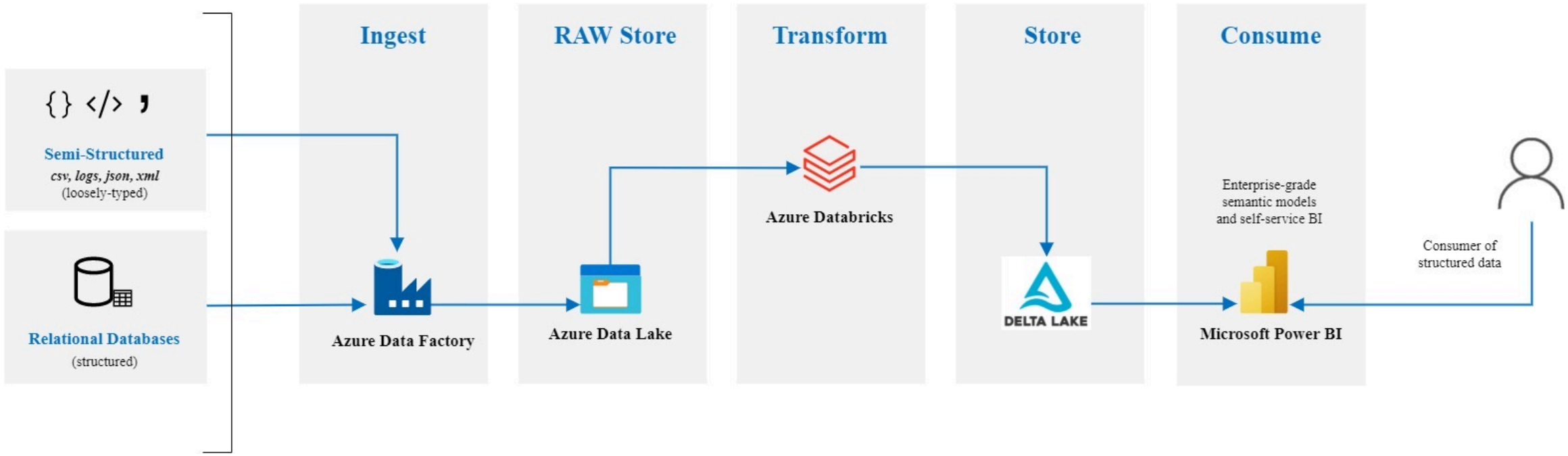
Databricks Delta Lake with IICS



Azure Reference Architecture – Databricks



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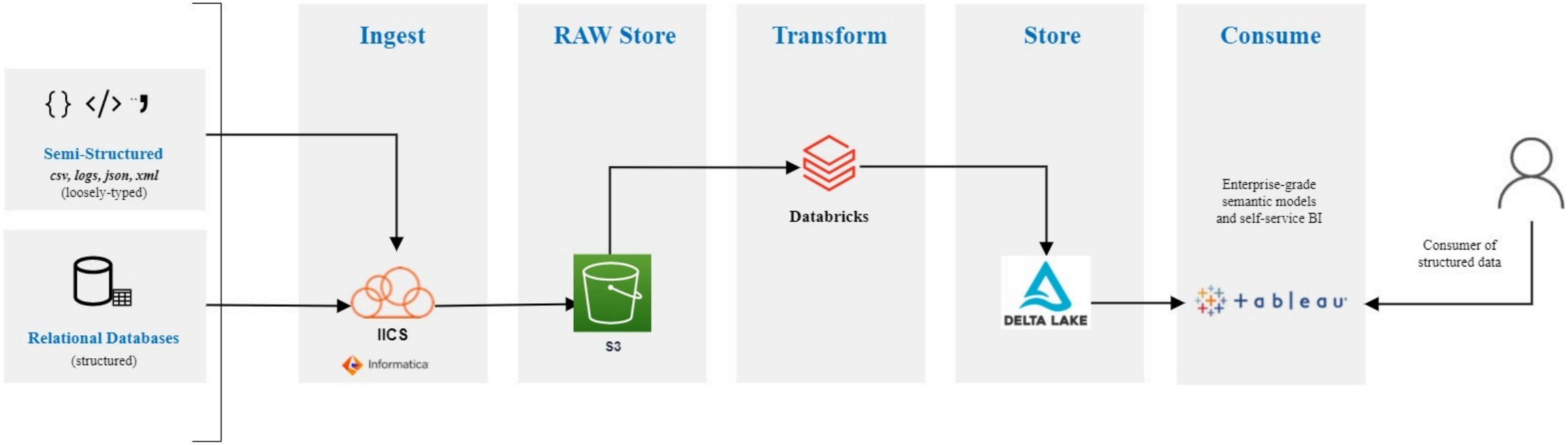
AWS Reference Architecture – Databricks



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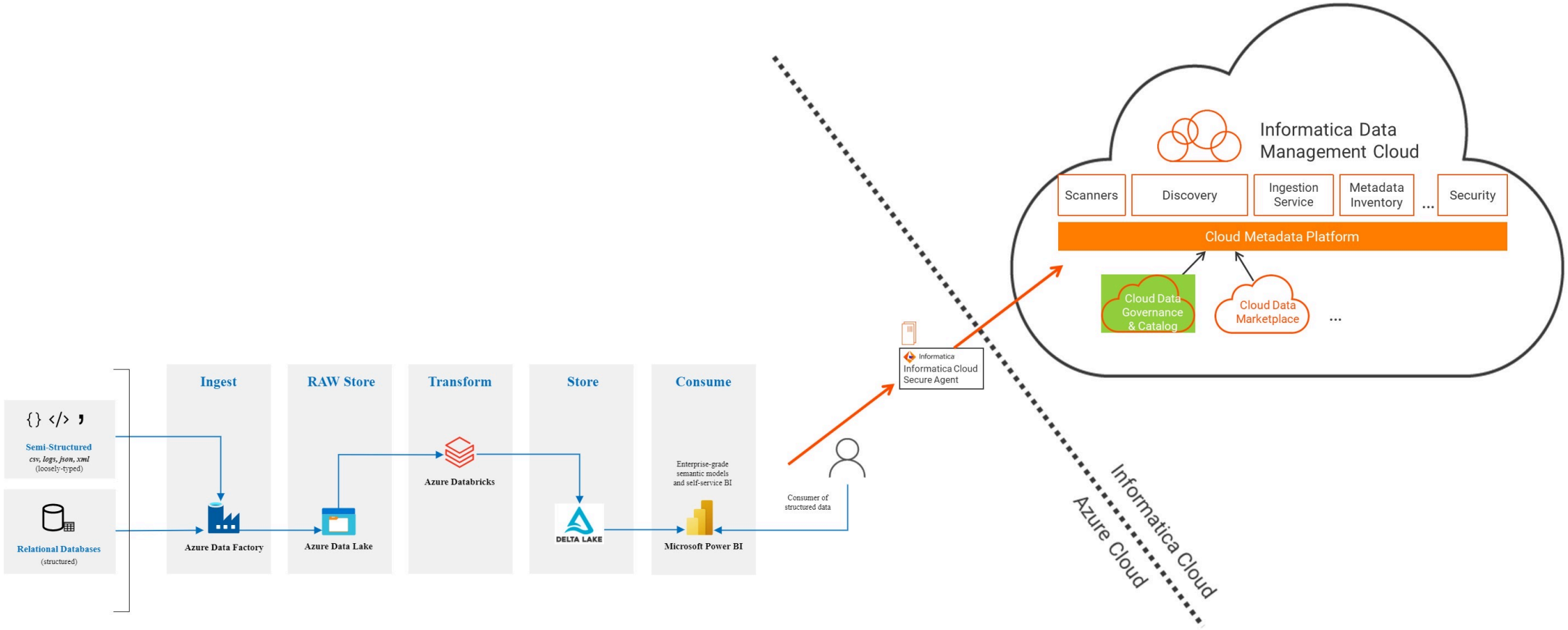
Databricks Delta Lake with CDGC



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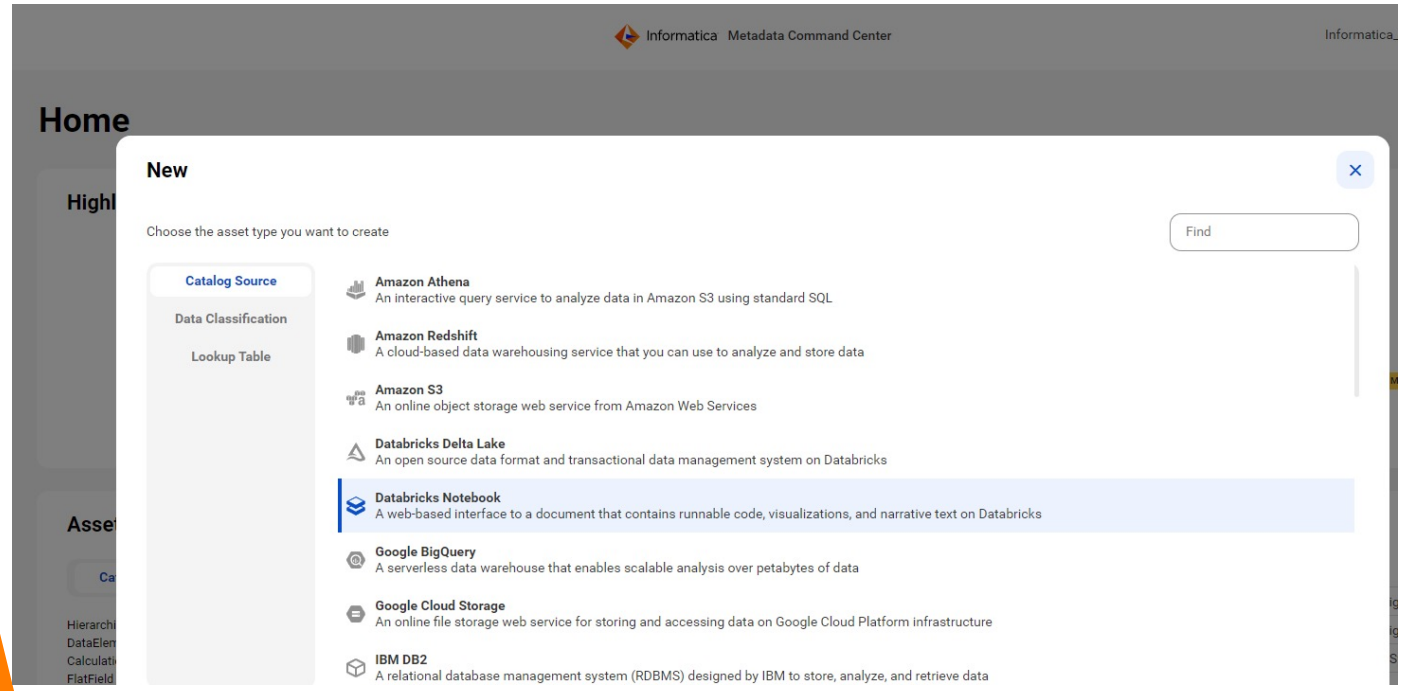
Databricks Scanners

Databricks Notebook Scanner

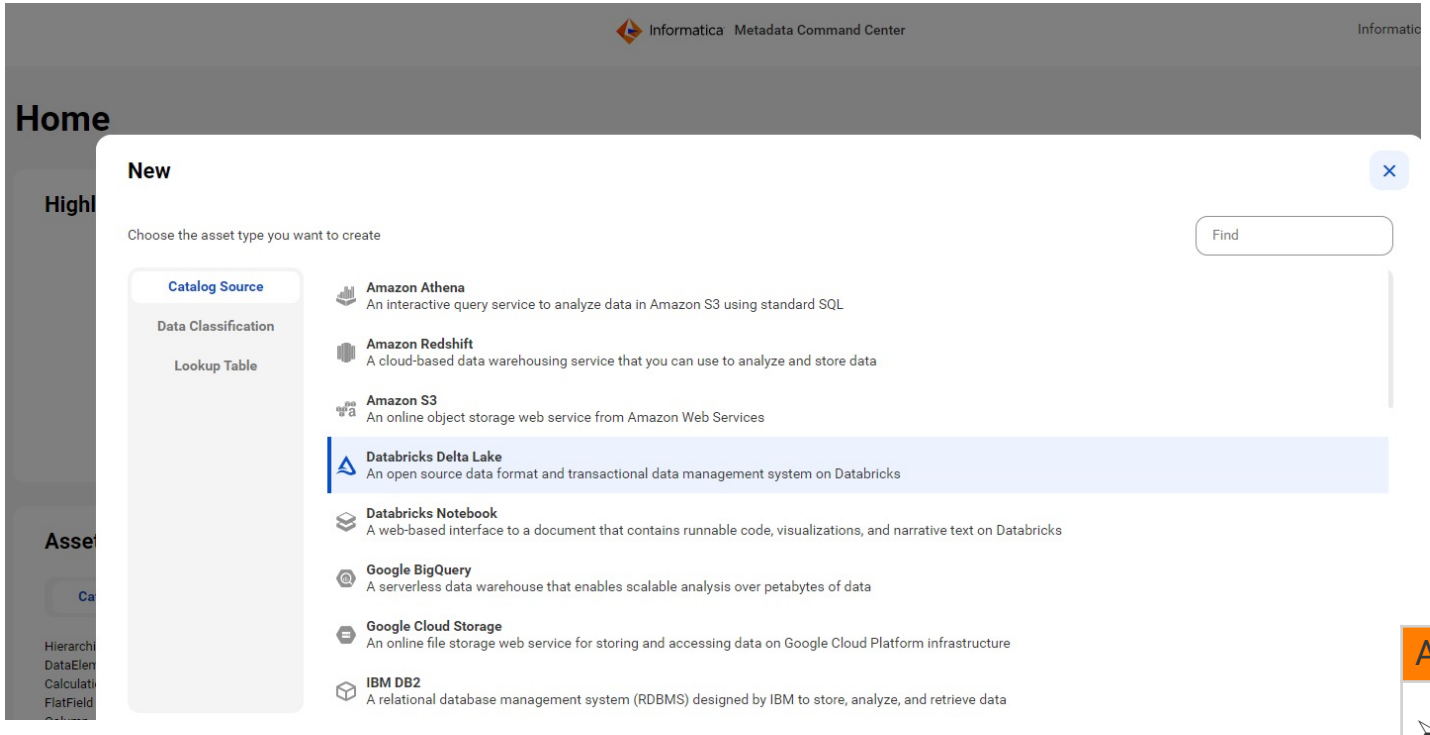


Databricks Notebook Scanner Config*

Asset	Attributes
Notebook	Notebook name object_type path language object_id
Folder	Folder name object_type path language object_id
Command	Command name Command Content

* Currently supports extract metadata from Notebook command types - Python and SQL. Not - Scala, R

Databricks Delta Lake Scanner



[Databricks Delta Table Scanner Config]

Asset	Attributes
➢ Database ➢ Schema ➢ Table ➢ Column ➢ View ➢ View Column	Name Type Description Path

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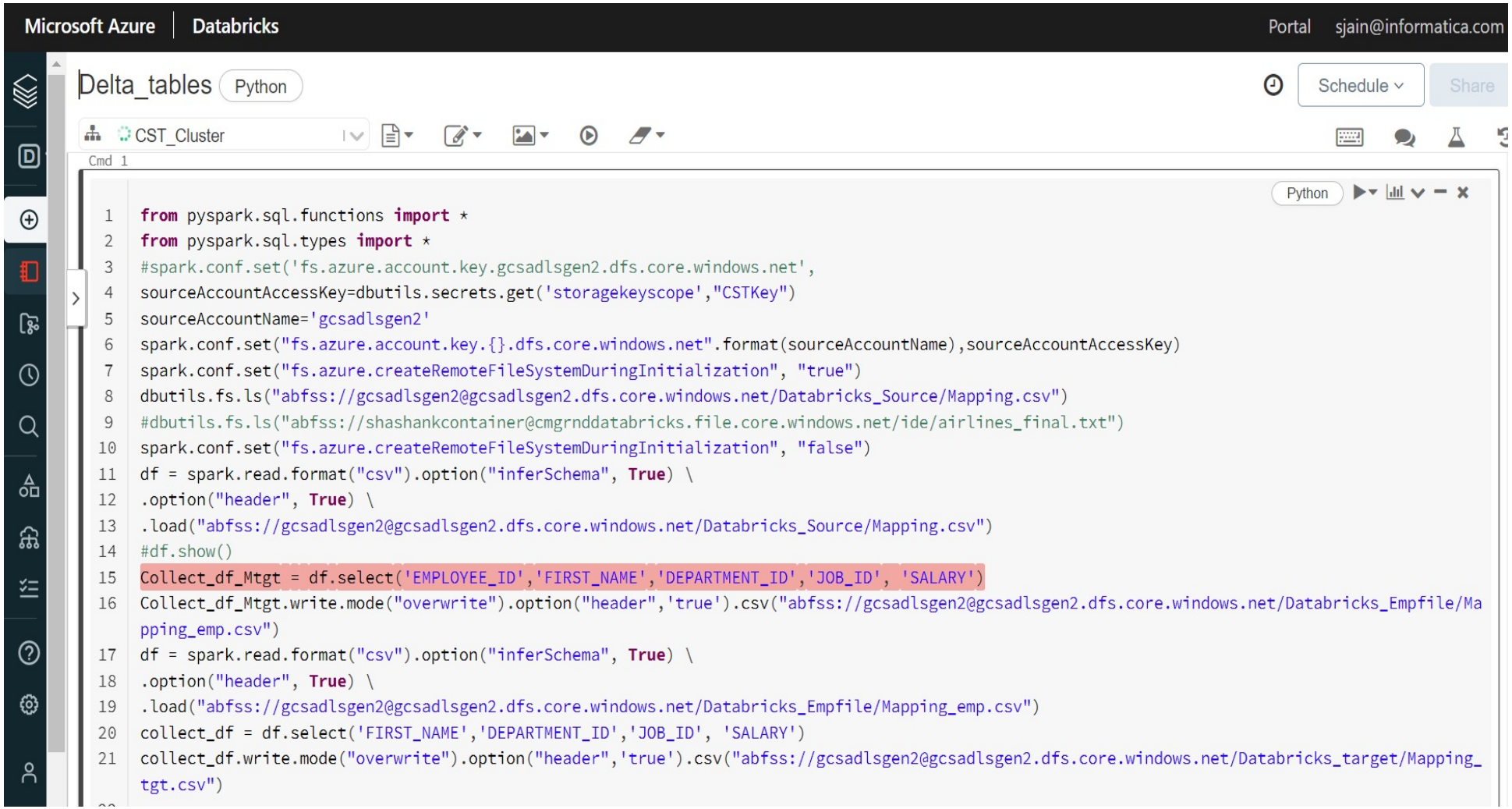
Databricks Metadata

Databricks Notebook



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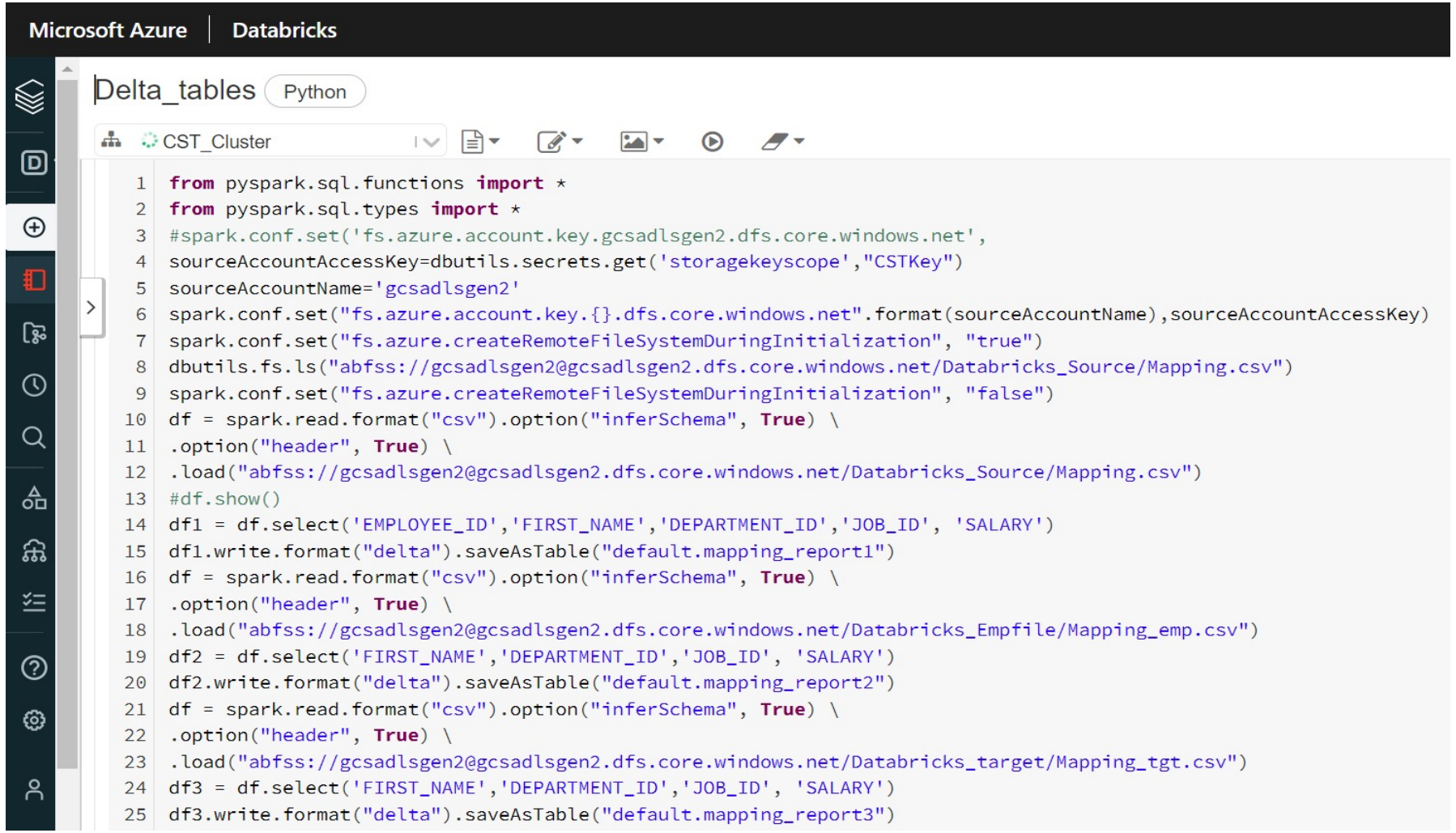
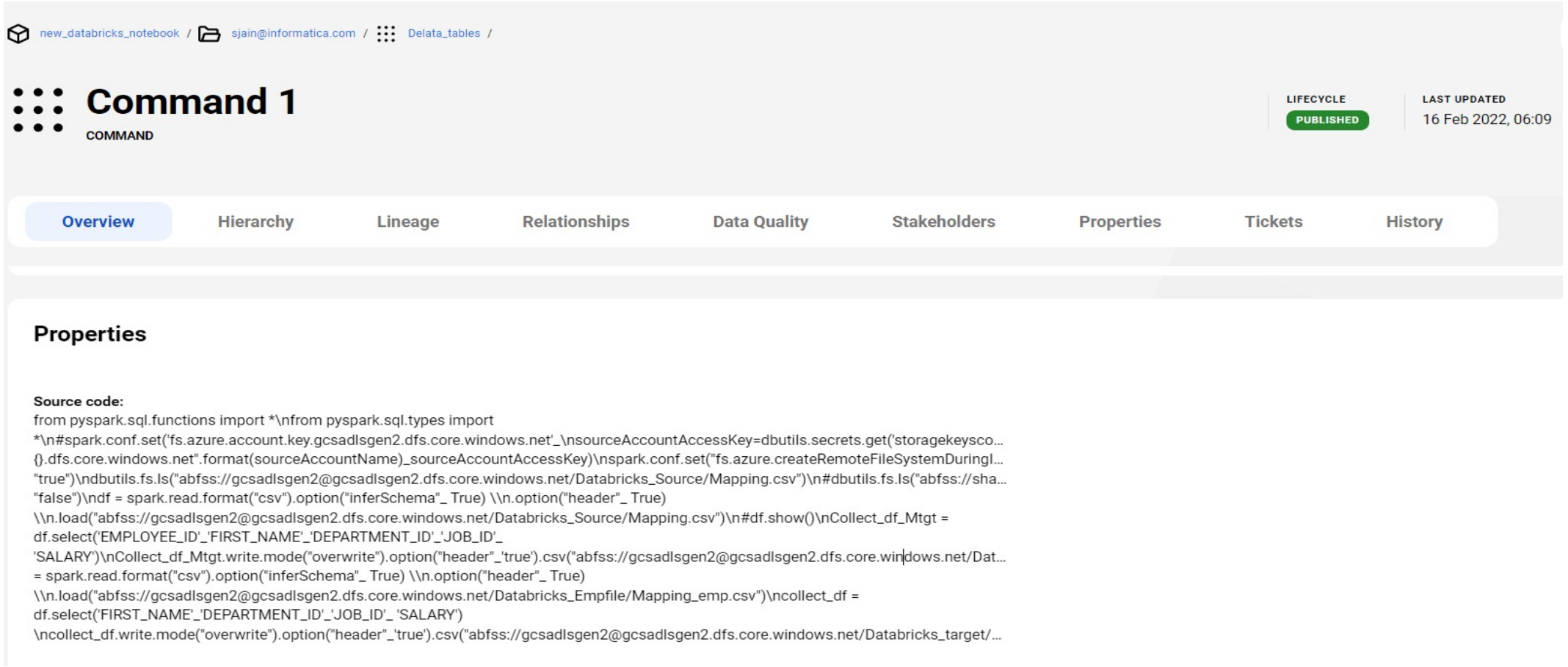
Databricks Notebook




```python
from pyspark.sql.functions import *
from pyspark.sql.types import *
#spark.conf.set('fs.azure.account.key.gcsadlsgen2.dfs.core.windows.net',
sourceAccountAccessKey=dbutils.secrets.get('storagekeyscope',"CSTKey")
sourceAccountName='gcsadlsgen2'
spark.conf.set("fs.azure.account.key.{}.dfs.core.windows.net".format(sourceAccountName),sourceAccountAccessKey)
spark.conf.set("fs.azure.createRemoteFileSystemDuringInitialization", "true")
dbutils.fs.ls("abfss://gcsadlsgen2@gcsadlsgen2.dfs.core.windows.net/Databricks_Source/Mapping.csv")
spark.conf.set("fs.azure.createRemoteFileSystemDuringInitialization", "false")
df = spark.read.format("csv").option("inferSchema", True) \
.option("header", True) \
.load("abfss://gcsadlsgen2@gcsadlsgen2.dfs.core.windows.net/Databricks_Source/Mapping.csv")
#df.show()
df1 = df.select('EMPLOYEE_ID','FIRST_NAME','DEPARTMENT_ID','JOB_ID', 'SALARY')
df1.write.format("delta").saveAsTable("default.mapping_report1")
df = spark.read.format("csv").option("inferSchema", True) \
.option("header", True) \
.load("abfss://gcsadlsgen2@gcsadlsgen2.dfs.core.windows.net/Databricks_Empfile/Mapping_emp.csv")
df2 = df.select('FIRST_NAME','DEPARTMENT_ID','JOB_ID', 'SALARY')
df2.write.format("delta").saveAsTable("default.mapping_report2")
df = spark.read.format("csv").option("inferSchema", True) \
.option("header", True) \
.load("abfss://gcsadlsgen2@gcsadlsgen2.dfs.core.windows.net/Databricks_target/Mapping_tgt.csv")
df3 = df.select('FIRST_NAME','DEPARTMENT_ID','JOB_ID', 'SALARY')
df3.write.format("delta").saveAsTable("default.mapping_report3")
```

Databricks Notebook – Overview



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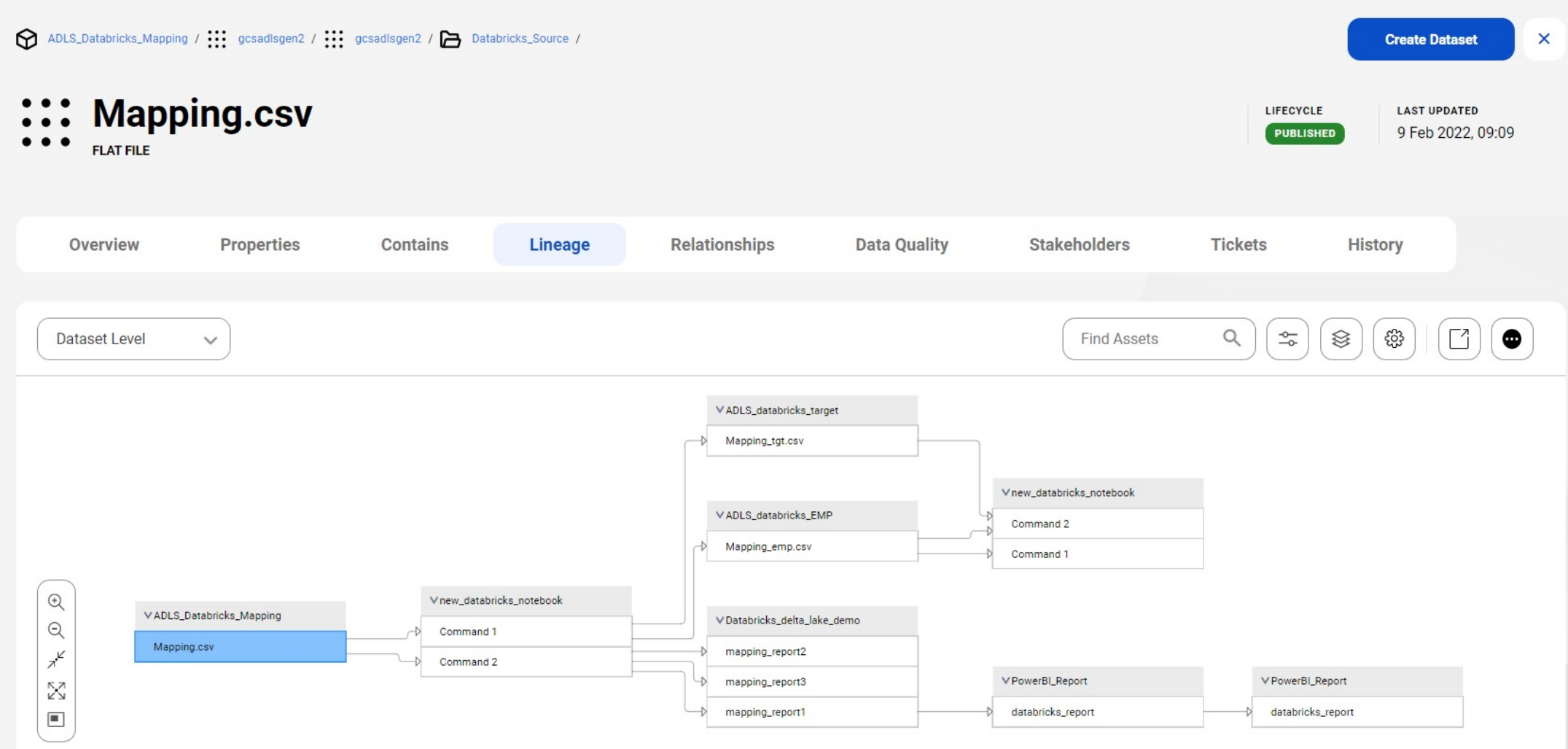
Databricks Notebook scan



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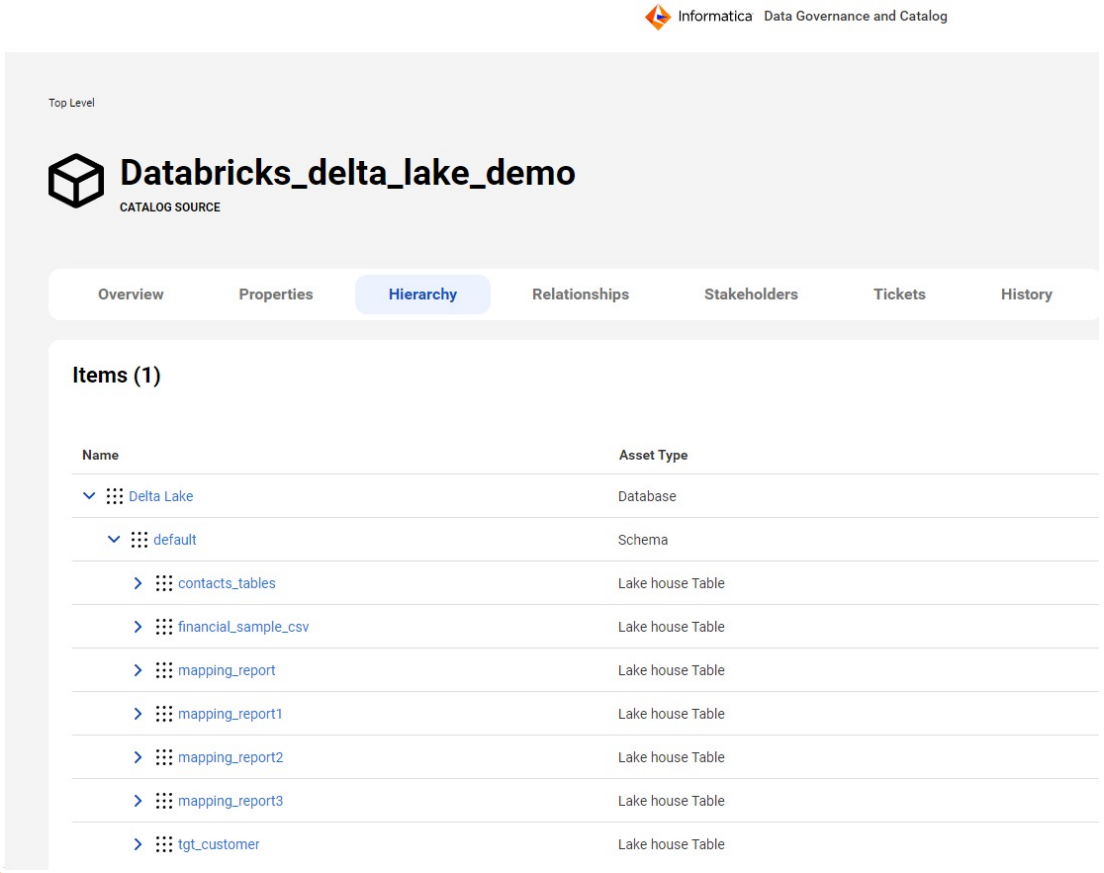
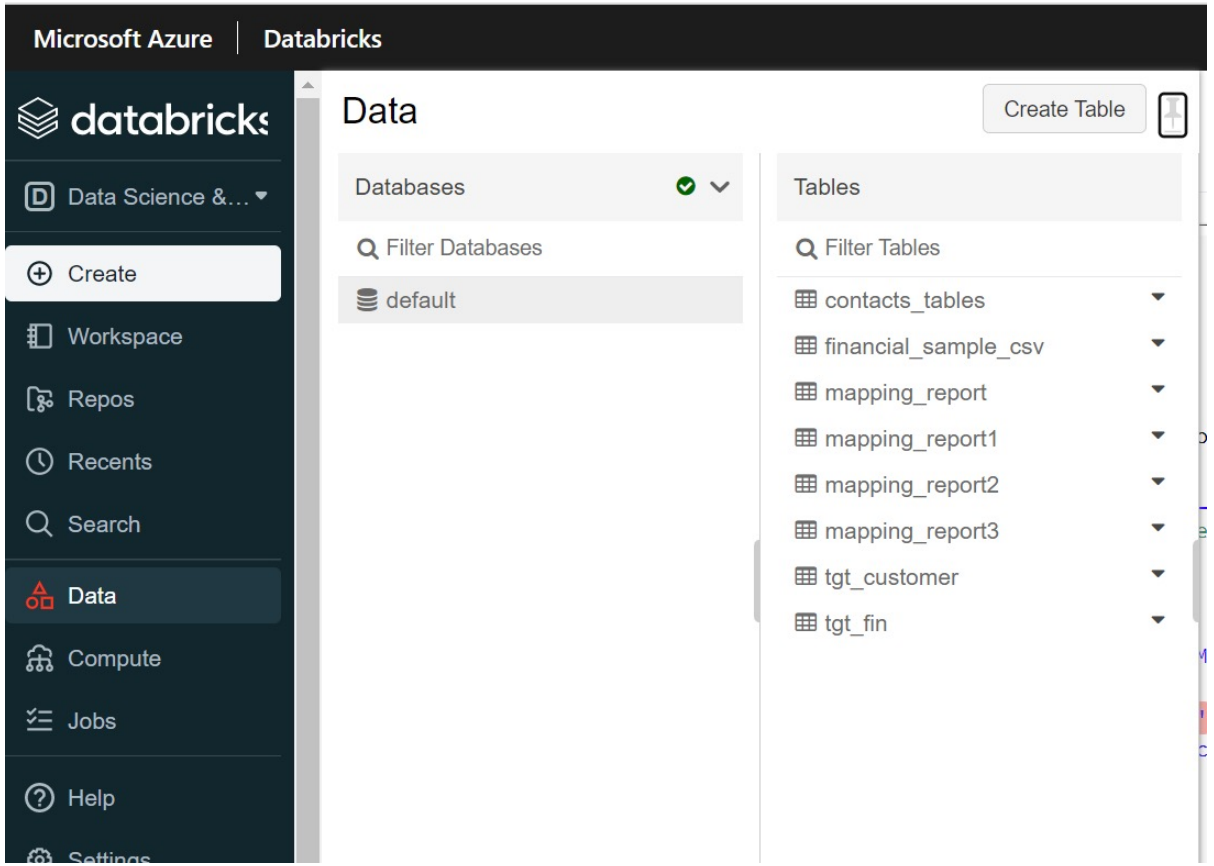
Delta Tables Scan





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DEMO

CDGC – Databricks CASE STUDY

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References

- Cloud Data Governance and Catalog: Click Here
- Introduction and Getting Started: Click Here
- Governance: Bulk Upload Business Metadata
- Metadata Command Center:
  - Catalog Scanner Configuration
  - Creating Catalog Source
  - Configure Runtime Environments