

CUSTOMER MANAGEMENT SYSTEM

Data Engineering Team



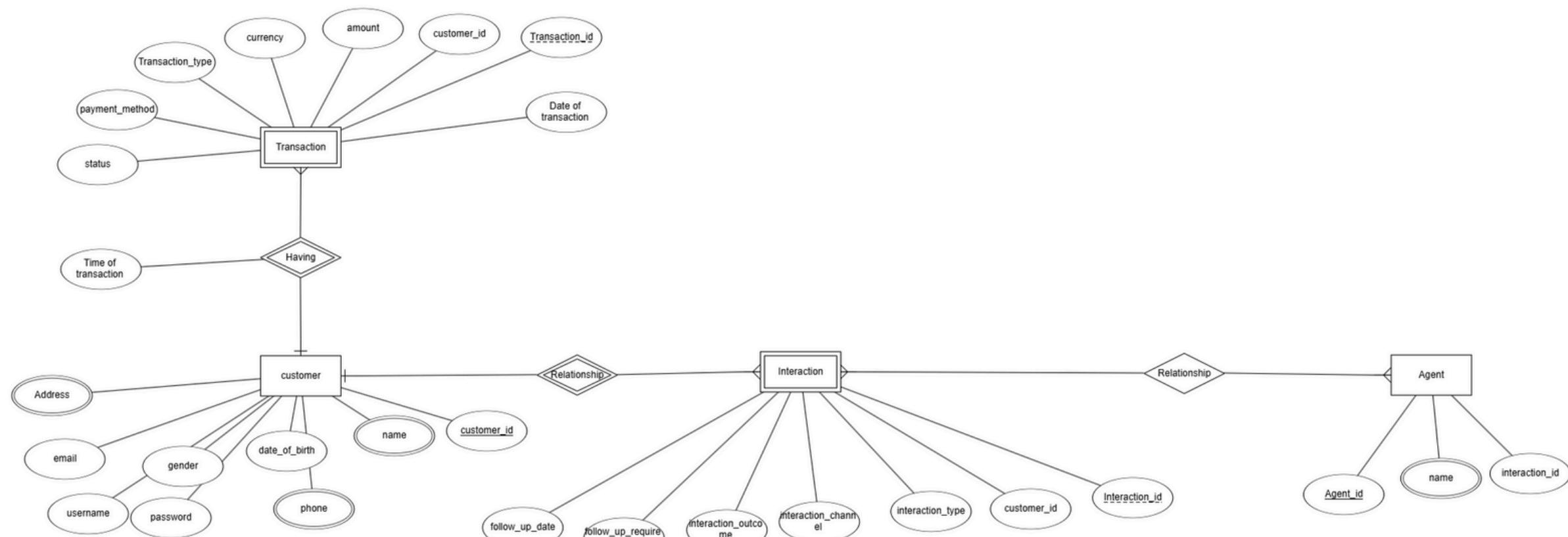
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Customer Management

ERD

Our project focuses on managing customer data, including their transactions and feedback, which are handled through interactions with agents. We also gather additional data for further analysis.

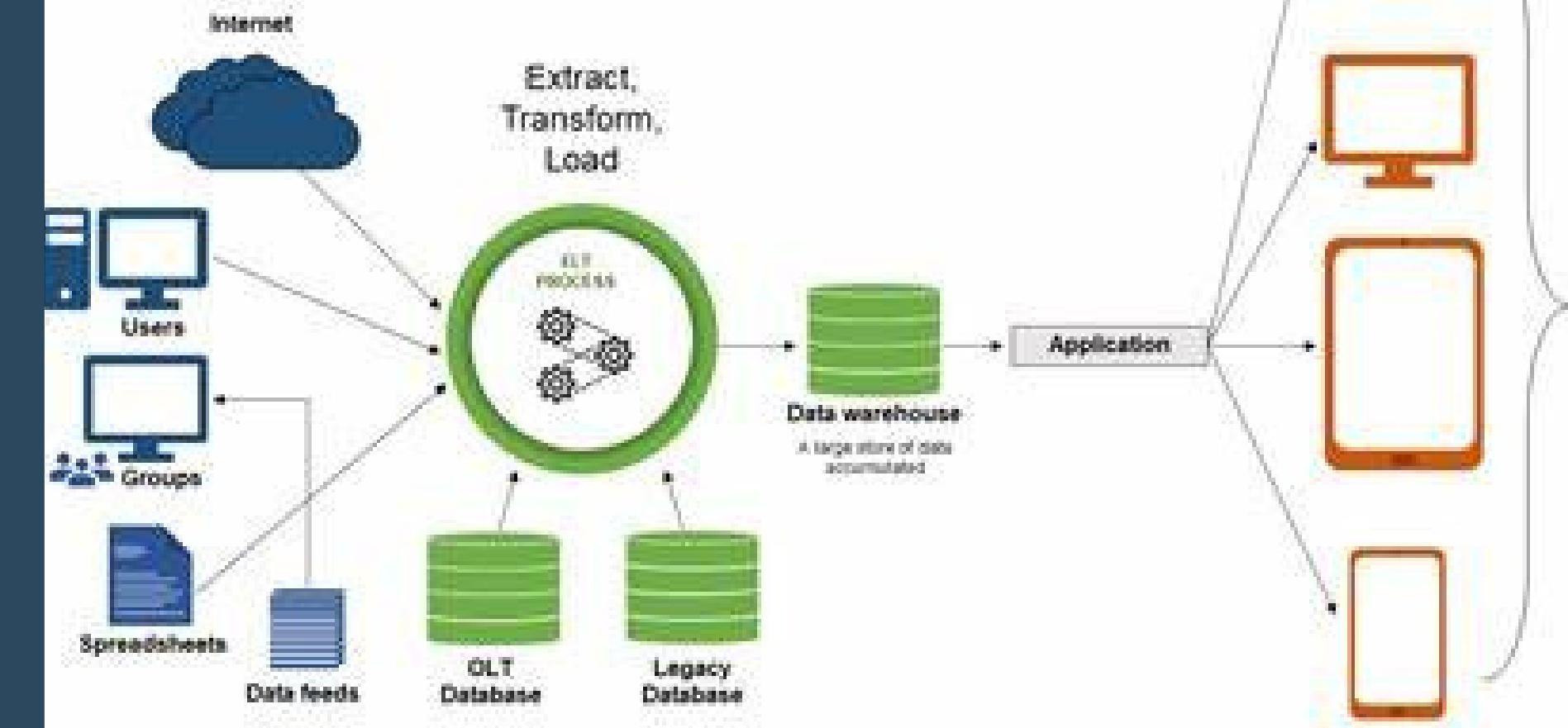


Datasets & Schema

Dataset

We Got our Dataset as a generative dataset from faker lib and random lib which gave us a big database to work on

Database powerpoint template



Schema

We applied the ERD and the mapping to the relational database

Problems

As we used generated datasets, we encountered some problems with database integration, such as the compatibility between the integrated data and the stored data in the schema.



Solution

01. **Data conversion**

we convetion the data
to be suitable to our
schema

02. **DWH Org**

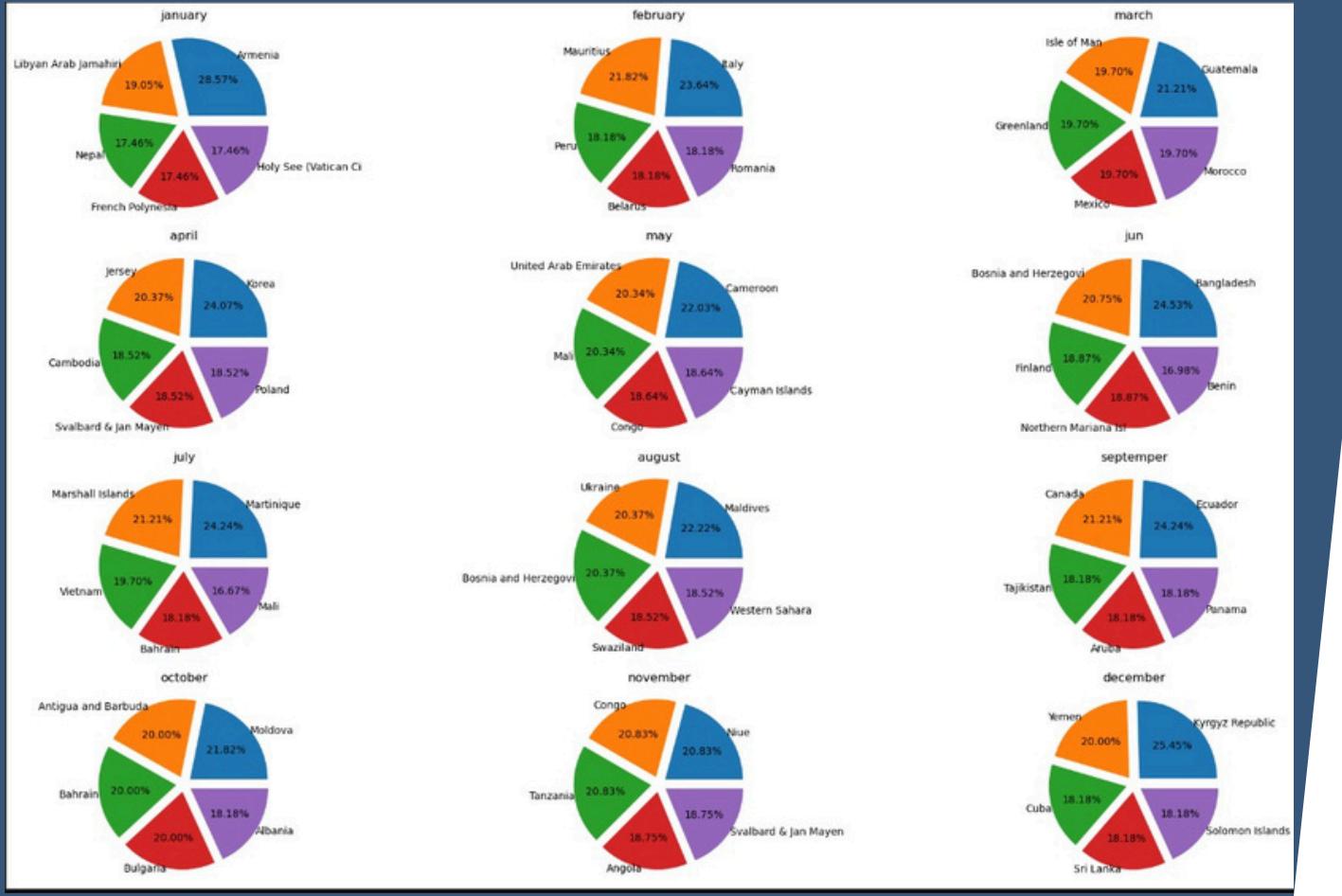
we organized the
schema as a DWH and
it helped us in Azure
pipelining

03. **RE integration**

we Re integrated the
Data and mirge it in a
new database with a
succseful backup to
recover data if needed



visualization



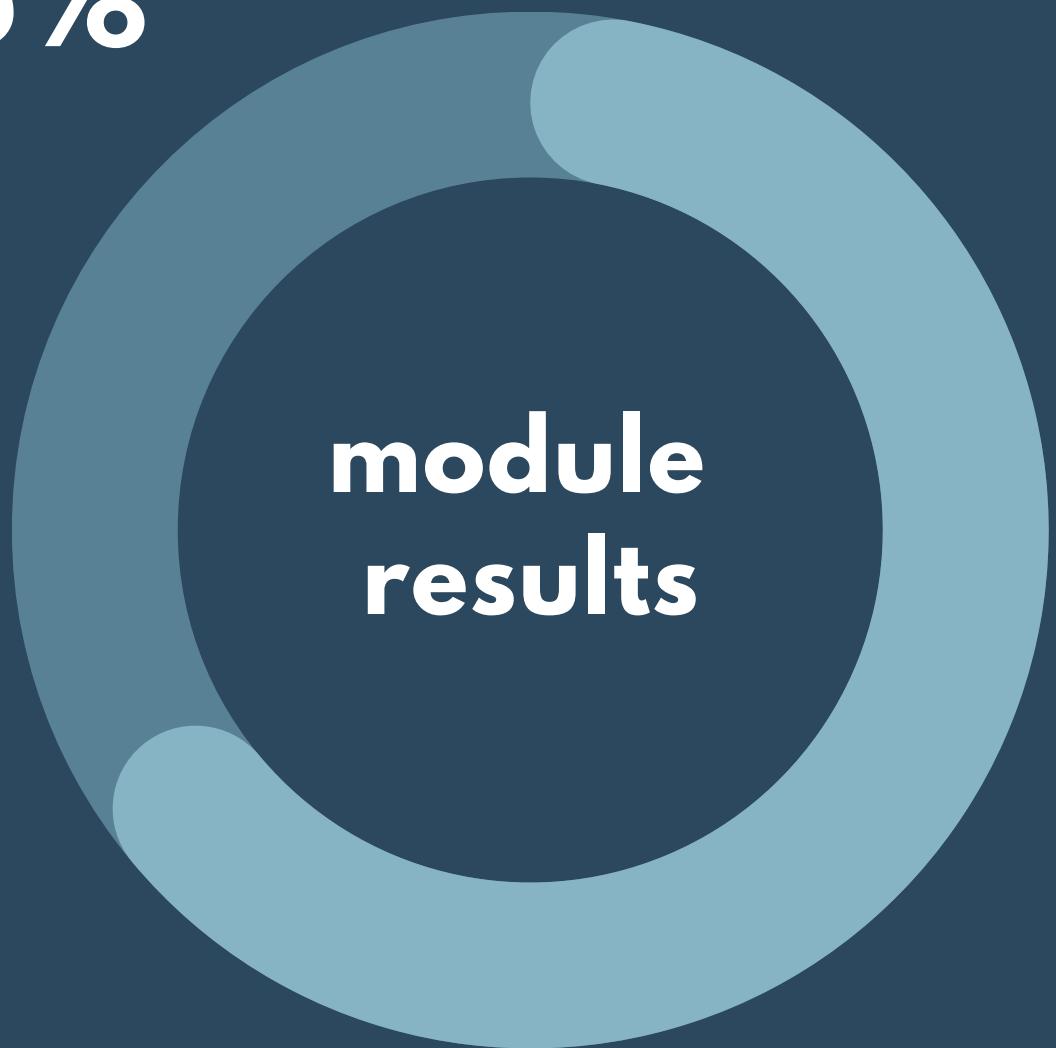
we analysed and visualized variance parameters with different tools such as ssms , python and Azure each tool had it's main object SSMS(sql):show us the information that we need in select statement python : charts and translation the code into graphs Azure: graphing the clouded data in Azure

ML module

we made a ML module to predict some information about customer and it's Transaction built in the huge data we generated

such as
Customer Churn Prediction: Predict which customers are likely to stop making purchases or leave the service.
(classification)

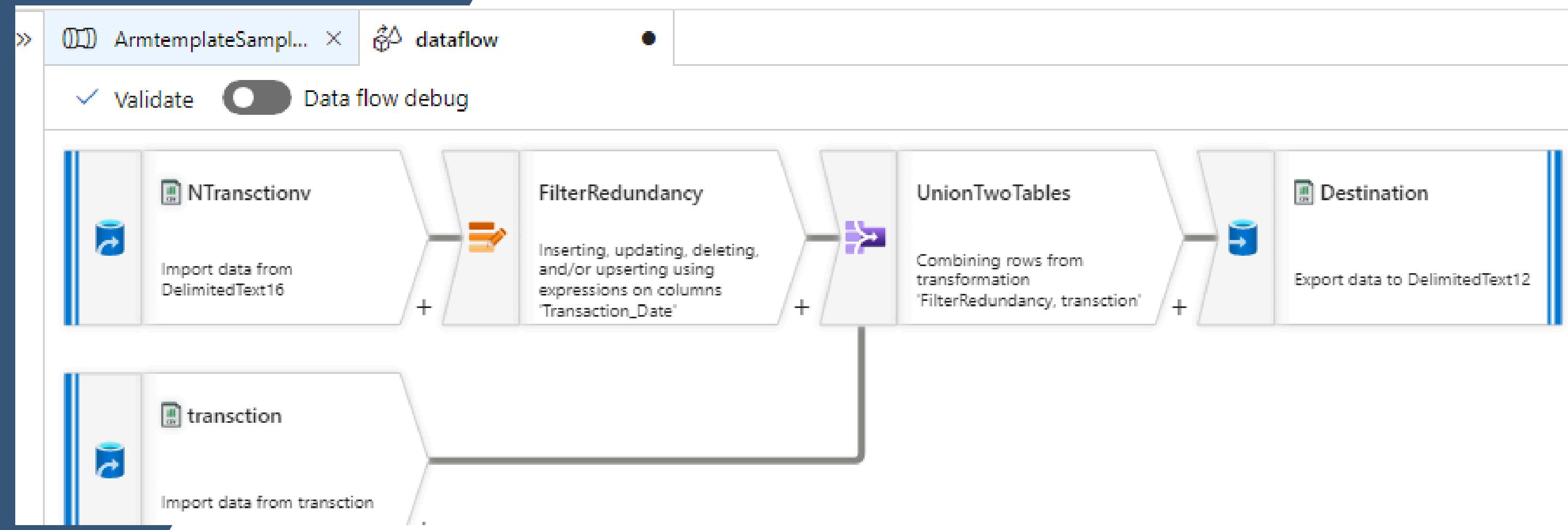
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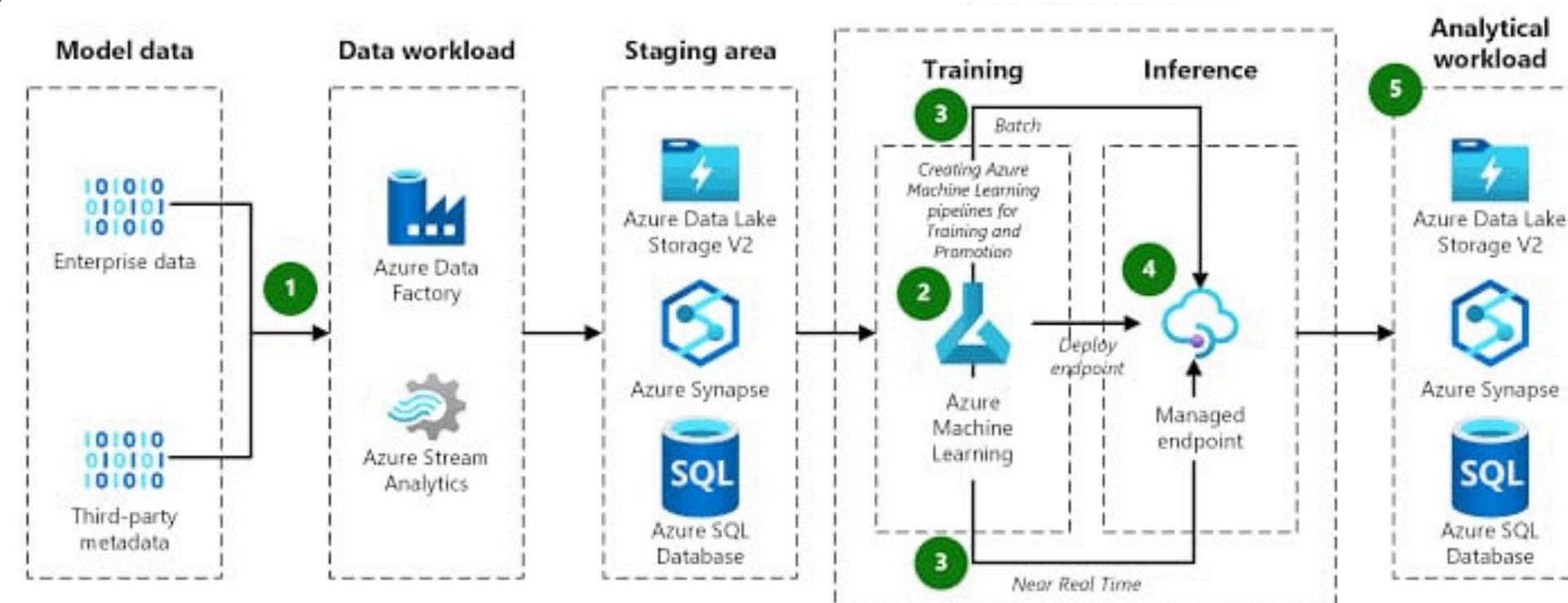
Azure implementation

Data flow



Azure implementation

Data service setup



**ANY QUESTIONS
PLEASE**

THANK YOU