Project Execution Guide

This project demonstrates a Medallion Architecture in Microsoft Fabric, transforming raw sales and rebate data into a business-ready semantic model connected to a Power BI report.

Step 1: Workspace

1. Create a new **Fabric Workspace**.
2. Within the workspace, create four **Lakehouses**:
    - Raw_Zone
    - Landing_Zone
    - Staging_Zone
    - Semantic_Zone

Step 2: Data Ingestion

1. Upload both Sales and Rebate csv files into the **Raw_Zone**, placing them in their respective folders.
2. Trigger the **rawToLZ pipeline**:
    - Loads data from **Raw_Zone** into **Landing_Zone**.
    - Automatically invokes the **Transformation pipeline**.

Step 3: Data Transformation

The Transformation pipeline executes two notebooks:

- **SalesLZToSZ**
- **RebateLZToSZ**

In these notebooks:

- Data is extracted from the **Landing_Zone**.
- Transformations are applied.
- Cleaned data is saved as staging tables in the **Staging_Zone Lakehouse**.

Step 4: Dimension Modeling

1. The Transformation pipeline invokes the **Dimension Modeling pipeline**.
2. This pipeline executes the following notebooks:

- **SalesSZToSM**
- **RebateSZToSM**

3. Finalized tables are stored in the **Semantic_Zone Lakehouse**.

Step 5: Reporting

- Once the Semantic Zone is updated, the pipeline refreshes the **Power BI report (RetailCompanyReport.pbix)**.
- The report provides interactive dashboards and KPIs for the Head of Sales.

Note: Optimize pipeline execution – As we have 4 different notebooks as part of transformation, it requires larger SKUs to allow multiple Spark jobs.

Below is the medallion architecture task flow created in Fabric.