**Project Overview**

Our project involves creating eight dimensional tables and two fact tables from the gold conformed layer, focusing on establishing a gold inventory transactions layer. The metadata required for this process is stored in SSMS. The primary objective is to optimize the performance of the client's Power BI report, PO\_Receipts, by creating a dimensional model that can be used as views for their monarchy report.

**Metadata Management**

We utilize three primary metadata tables:

1. **adf.uspSetDataProcess**: Used for creating the dimensional tables.
2. **adf.uspSetDataObjectColumn**: Used for creating the columns in the inventory layer.
3. **adf.uspSetDataObjectColumnMapping**: Used for mapping all the columns from the conformed layer to the inventory layer.

**Dimensional and Fact Tables Creation**

1. **Script Preparation**: For each dimensional table, we have prepared scripts that generate the necessary EXECUTE statements for the stored procedures responsible for creating these tables.
2. **Dimensional Table Creation**: After creating a specific dimensional table, we obtain the corresponding data process ID.
3. **Data Process ID Utilization**: This data process ID is then entered into a script to physically create the dimensional table.

**Client Requirement and Optimization**

The client had a Power BI report, PO\_Receipts, that plotted data between orders and receipts. To optimize the performance of this report:

1. **Dimensional Modeling**: We created a dimensional model to enhance the report's performance.
2. **View Creation**: The dimensional tables were designed so that they could be used as views for the client's monarchy report.

**Steps to Execute the Project**

1. **Metadata Setup**:
   * Ensure all metadata is accurately stored in SSMS.
   * Verify the metadata tables (adf.uspSetDataProcess, adf.uspSetDataObjectColumn, adf.uspSetDataObjectColumnMapping) contain the necessary information.
2. **Script Development**:
   * Develop scripts to generate EXECUTE statements for the stored procedures.
   * Ensure these scripts correctly reference the metadata tables.
3. **Table Creation Process**:
   * Execute the scripts to create each dimensional table.
   * Retrieve the data process ID for each created dimensional table.
4. **Data Process ID Entry**:
   * Enter the obtained data process ID into the corresponding script.
   * Physically create the dimensional table using this script.
5. **Optimization for Power BI**:
   * Use the created dimensional tables as views to improve the performance of the Power BI report, PO\_Receipts.
   * Ensure the views are correctly integrated into the monarchy report for optimal performance.