Quadratic: Actions and Calculations

Prompt 1: To create a data table

create a date table that has the dates from 03-01-2025 (March 1st, 2025) to

05-31-2025 (May 31st, 2025)

Prompt 2: To create an exchange rate table

Create an exchange_rate table for the period from March 1st, 2025, to May 17th, 2025. Use the following API request sample to fetch historical exchange rates:

response = requests.get(f'https://openexchangerates.org/api/historical/2024-10-21.json?app_id=<Replace your app id here>&symbols=INR')

Replace the date for each in the URL with each date within the specified range.

Prompt 3: Data cleaning and summarizing required data in one table (fact_summary)

Create a Python code that:

1. Load data from:

   - fact_order_line table

   - dim_products sheet (skip first row, use second row as headers)

   - dim_customers sheet (skip first row, use second row as headers)

   - Exchange Rate sheet (skip first row, use second row as headers)

2. Cleans the data:

   - Convert product_id and customer_id to numeric

   - Strip whitespace from IDs

   - Remove rows with NULL IDs

   - Convert IDs to integers

   - Convert dates to datetime

3. Merges the tables:

   - Orders with products using product_id

   - Result with customers using customer_id

   - Result with exchange rates using order_placement_date

4. Calculates total amounts:

   - For USD currency: price_USD * USD_INR_Rate * order_qty

   - For INR currency: price_INR * order_qty

5. Clean final output:

   - Drop intermediate columns: price_USD, price_INR, currency, Date, USD_INR_Rate

   - Keep only essential columns: order details, IDs, dates, quantities, delivery information,

     and total_amount (in INR)

Prompt 4: Creating Business KPIs

Use this Prompt:

Create the following KPIs

1.   Total Order Lines

2.   Line Fill Rate

3.   Volume Fill Rate

4.   Total Orders

5.   On Time Delivery %

6.   In Full Delivery %

7.   On Time In Full %

Prompt 5: Top Customers

Create the following KPIs

Show me top 5 customers based on order value and their OTIF %, IF %, OT %.

Also add the customer name, customer ID and city in the table

Prompt 6: Top Customers (India)

Show me top 5 customers in India based on order value and their OTIF %, IF %, OT %.

Also add the customer name, customer ID and city in the table.