

Intorduction

In this assessment, you are working within a Greenplum database. Your task is to design and create tables to store information about customers, products, sales transactions, and shipping details. After creating the tables, you need to write a SQL query to perform a complex analysis of the sales data, including calculating the moving average of sales over a specified time period.

Table Creation Requirements

Customers Table: Create a table named "customers" with columns for customer ID, customer name, email address, country, and any other relevant information.

Products Table: Create a table named "products" with columns for product ID, product name, price, category, and any other relevant information.

Sales Transactions Table: Create a table named "sales_transactions" with columns for transaction ID, customer ID (foreign key referencing the customers table), product ID (foreign key referencing the products table), purchase date, quantity purchased, and any other relevant information.

Shipping Details Table: Create a table named "shipping_details" with columns for transaction ID (foreign key referencing the sales_transactions table), shipping date, shipping address, city, country, and any other relevant information.

Ensure that tables are created in an optimized manner, utilizing data distribution and appropriate data types and constraints for each column. Establish proper relationships between the tables using foreign key constraints.

SQL Query Task

Write a SQL query to perform the following analysis:

- Calculate the total sales amount and the total number of transactions for each month.
- Calculate the 3-month moving average of sales amount for each month. The moving average should be calculated based on the sales data from the previous 3 months (including the current month).

Submission

Please provide the SQL scripts to create the required tables and the SQL query for the analysis task along with any additional comments or explanations regarding your table design choices.

Format of the file is up to your preference.