**CREATING DATABASE FOR ANALYSIS OF SUPERMART**

CREATE DATABASE supermart\_grossery\_sales;



**CREATE TABLE SUPARMART GROCERY SALES**

CREATE TABLE Supermart\_Grocery\_Sales(

Order\_ID VARCHAR(50) NOT NULL,

Customer\_Name VARCHAR(50) NOT NULL,

Category VARCHAR(50) NOT NULL,

Sub\_Category VARCHAR(50)NOT NULL,

City VARCHAR(50) NOT NULL,

Order\_Date DATE NOT NULL,

Region VARCHAR(50) NOT NULL,

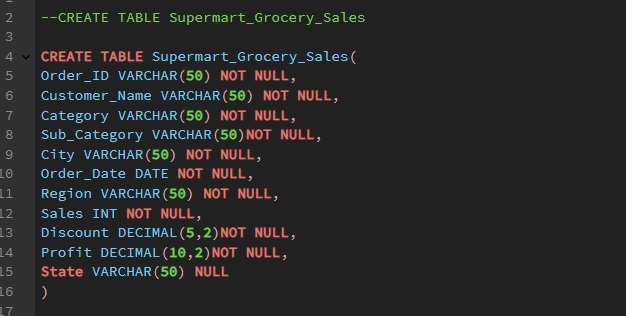
Sales VARCHAR(50) NOT NULL,

Discount DECIMAL(20)NOT NULL,

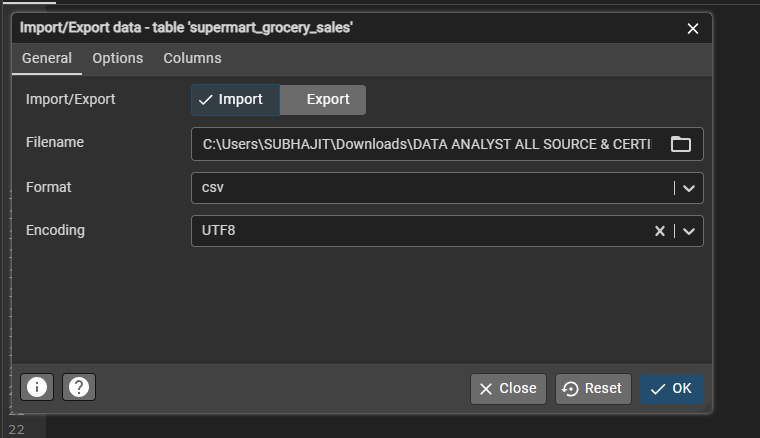
Profit DECIMAL(20)NOT NULL,

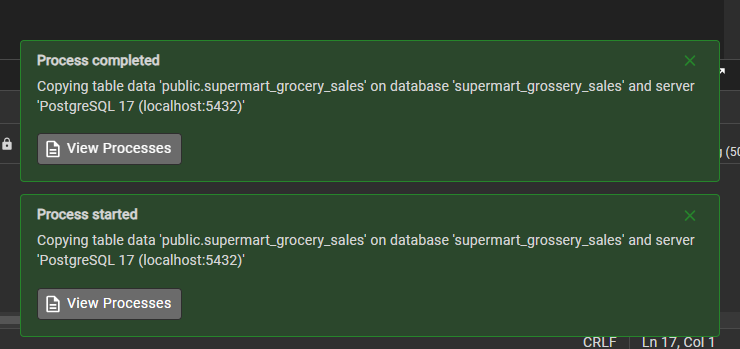
State VARCHAR(50) NULL

)



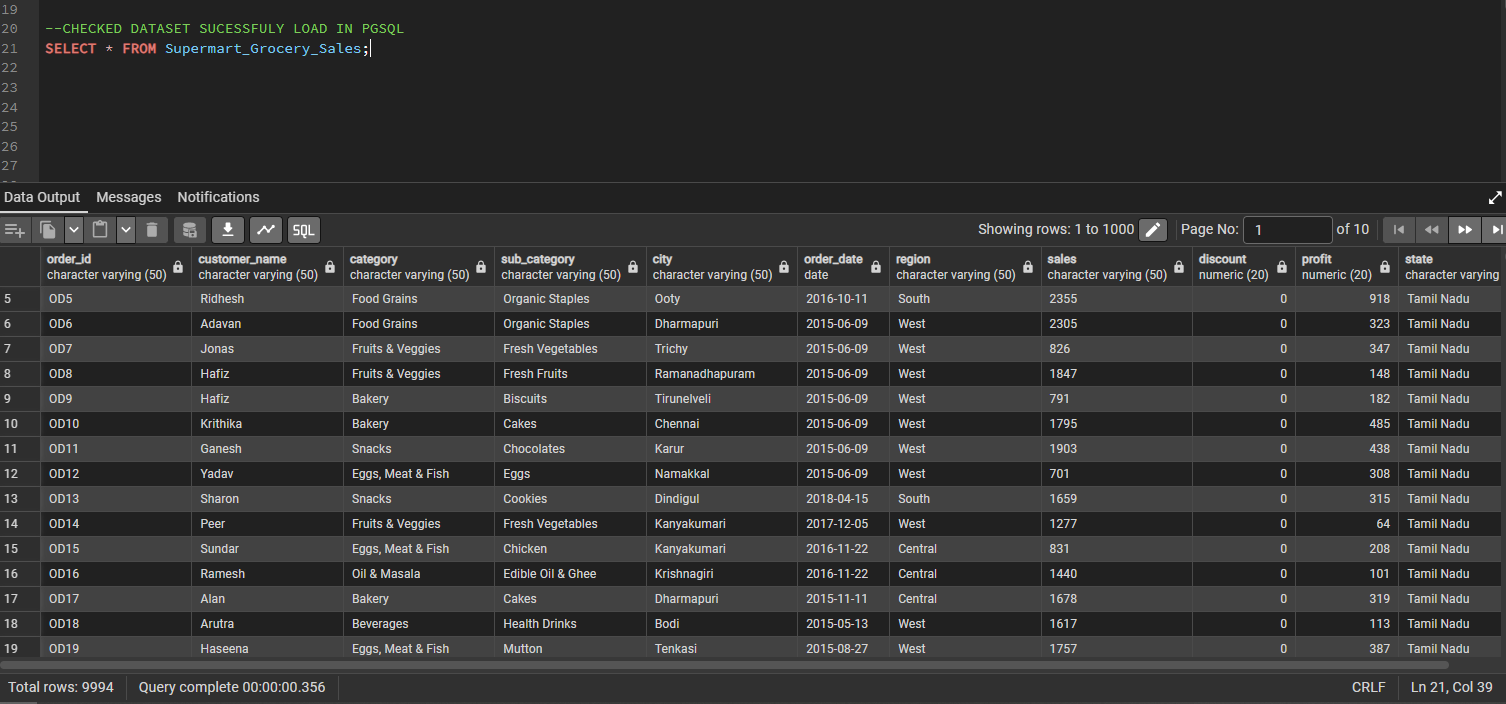
**IMPORT CSV DATASET TO PGSQL**





**CHECKED DATASET SUCESSFULY LOAD IN PGSQL**

SELECT \* FROM Supermart\_Grocery\_Sales;



**BUISNESS PROBLEMS**

**1. Which product categories and subcategories contribute the most to total sales and profits?**

SELECT category, sub\_category,

SUM(sales) AS Total\_Sales,

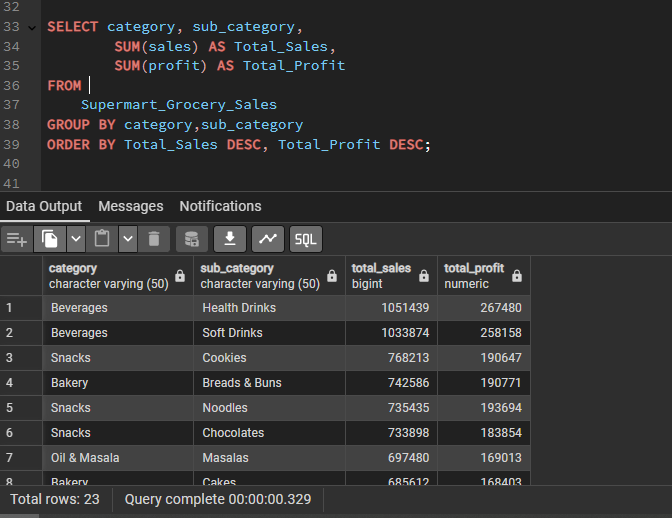
SUM(profit) AS Total\_Profit

FROM

Supermart\_Grocery\_Sales

GROUP BY category,sub\_category

ORDER BY Total\_Sales DESC, Total\_Profit DESC;



**2. Which regions and cities generate the highest revenue, and which ones underperform?**

**-- REGION & CITY GENERATE THE HIGHEST REVINUE**

SELECT region, city,

SUM(sales) AS Highest\_Revenue

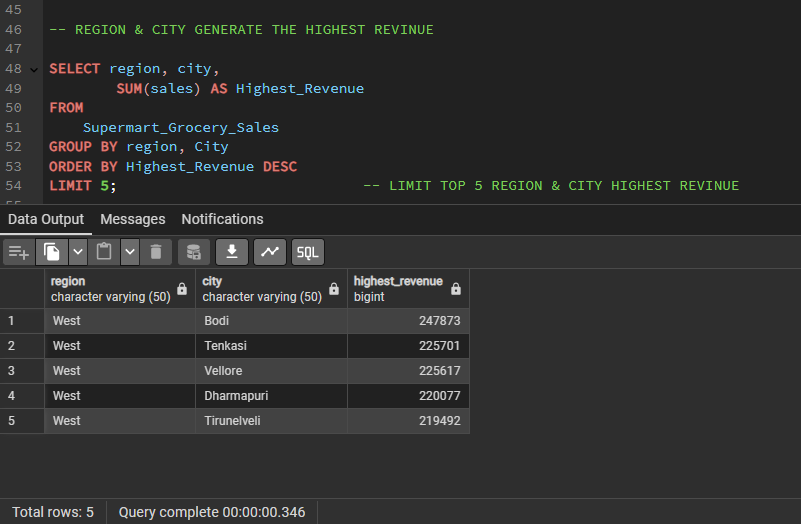
FROM

Supermart\_Grocery\_Sales

GROUP BY region, City

ORDER BY Highest\_Revenue DESC

LIMIT 5; -- LIMIT TOP 5 REGION & CITY HIGHEST REVINUE



**-- UNDERPERFORMING REGION & CITY**

SELECT region, city,

SUM(sales) AS Lowest\_Revenue

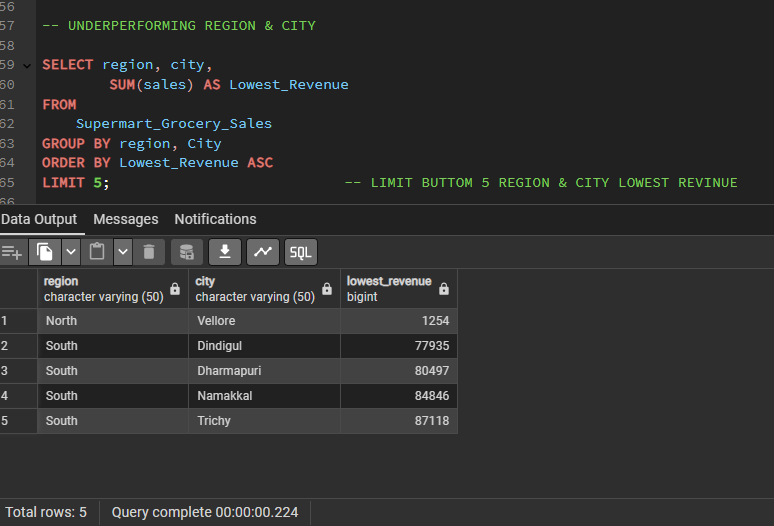
FROM

Supermart\_Grocery\_Sales

GROUP BY region, City

ORDER BY Lowest\_Revenue ASC

LIMIT 5; -- LIMIT BUTTOM 5 REGION & CITY LOWEST REVINUE



**3. Are higher discounts impacting profit margins negatively?**

SELECT

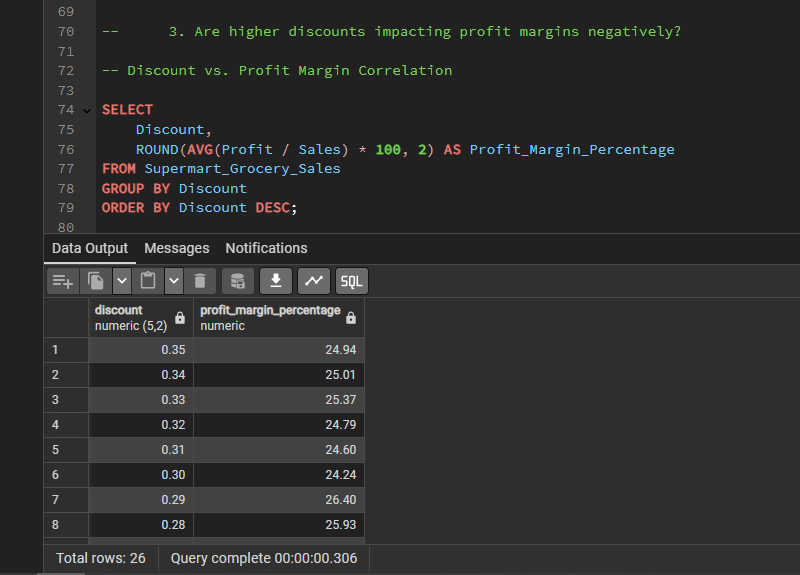
Discount,

ROUND(AVG(Profit / Sales) \* 100, 2) AS Profit\_Margin\_Percentage

FROM Supermart\_Grocery\_Sales

GROUP BY Discount

ORDER BY Discount DESC;



**-- Categories Most Affected by Discounts**

SELECT

Category,

Discount,

SUM(Sales) AS Total\_Sales,

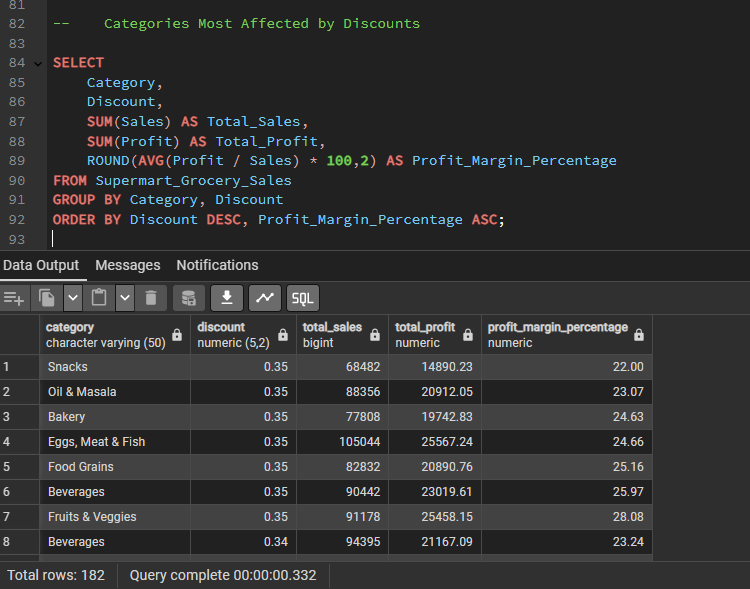
SUM(Profit) AS Total\_Profit,

ROUND(AVG(Profit / Sales) \* 100,2) AS Profit\_Margin\_Percentage

FROM Supermart\_Grocery\_Sales

GROUP BY Category, Discount

ORDER BY Discount DESC, Profit\_Margin\_Percentage ASC;



**4. How does profit vary across different product categories and regions?**

**-- Aggregate Profit by Category & Region**

SELECT Category, Region,

SUM(Profit) AS Total\_Profits

FROM

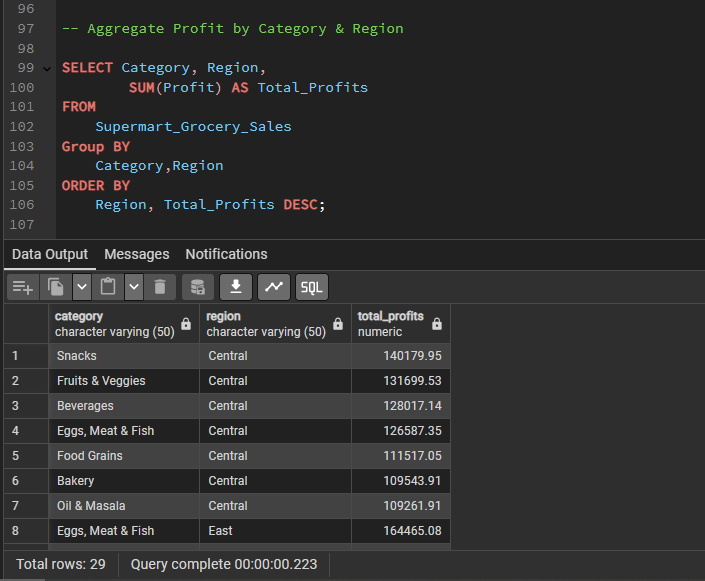
Supermart\_Grocery\_Sales

Group BY

Category,Region

ORDER BY

Region, Total\_Profits DESC;



**5. Identifying the top customers based on purchase value.**

-- **TOP 10 CUSTOMER BASED ON TOTAL PURCHASE VALUE**

SELECT

Customer\_Name,

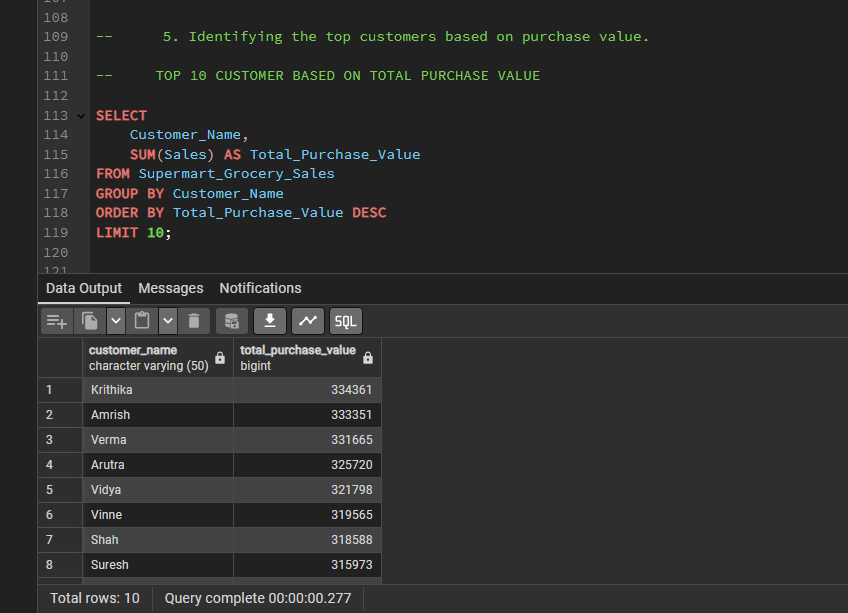
SUM(Sales) AS Total\_Purchase\_Value

FROM Supermart\_Grocery\_Sales

GROUP BY Customer\_Name

ORDER BY Total\_Purchase\_Value DESC

LIMIT 10;



**6. Determining seasonal trends in sales and peak demand periods.**

-- Extract Month and Year for Sales Trend Analysis

SELECT

EXTRACT(YEAR FROM Order\_Date) AS Year, -- Extract Year

EXTRACT(MONTH FROM Order\_Date) AS Month, -- Extract Month

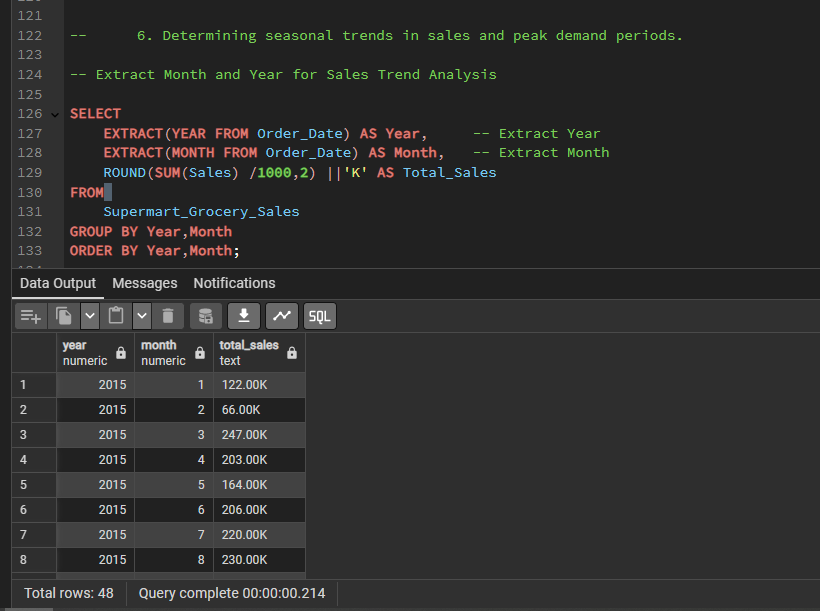
ROUND(SUM(Sales) /1000,2) ||'K' AS Total\_Sales

FROM

Supermart\_Grocery\_Sales

GROUP BY Year,Month

ORDER BY Year,Month;



-- Quarter-Wise Trends

SELECT

EXTRACT(YEAR FROM Order\_Date) AS Year, -- Extract Year

EXTRACT(QUARTER FROM Order\_Date) AS Quarter, -- Extract Quarter

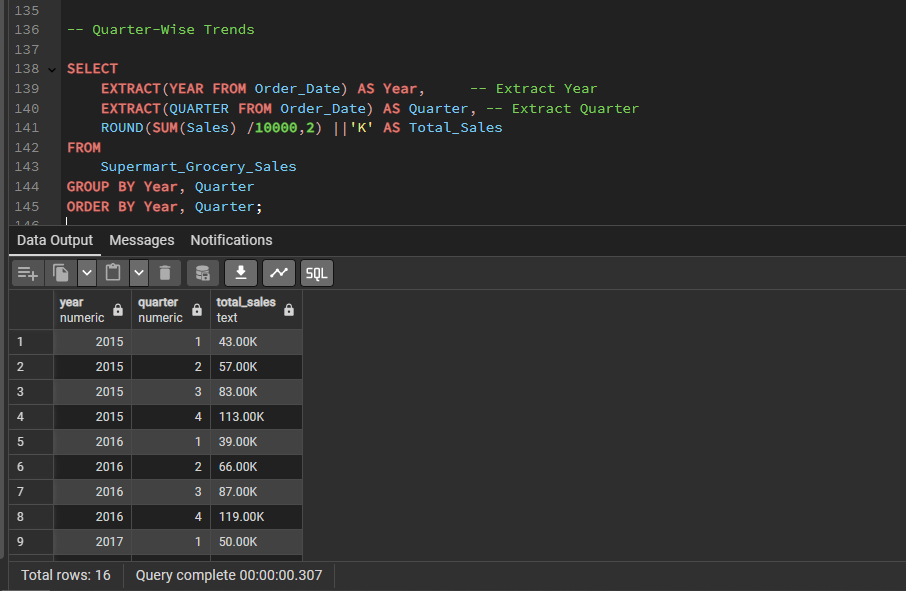
ROUND(SUM(Sales) /10000,2) ||'K' AS Total\_Sales

FROM

Supermart\_Grocery\_Sales

GROUP BY Year, Quarter

ORDER BY Year, Quarter;



-- Peak Sales Days of the Week

SELECT

TO\_CHAR(Order\_Date, 'Day') AS Day\_of\_Week,

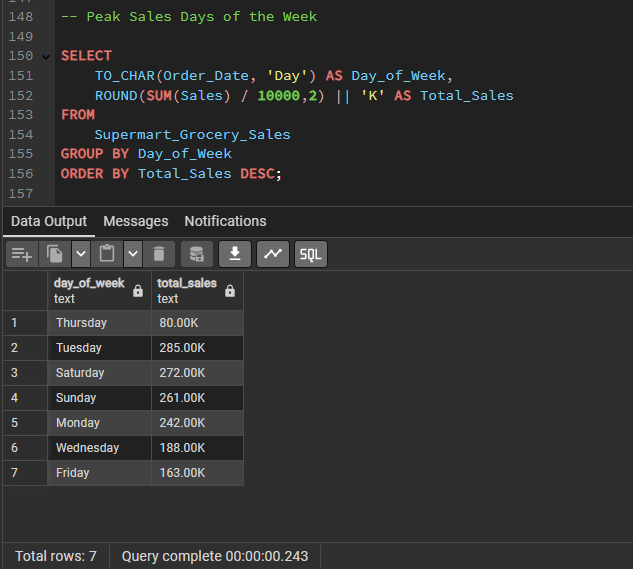
ROUND(SUM(Sales) / 10000,2) || 'K' AS Total\_Sales

FROM

Supermart\_Grocery\_Sales

GROUP BY Day\_of\_Week

ORDER BY Total\_Sales DESC;



-- Monthly Sales Trends by Category

SELECT

CATEGORY,

EXTRACT(MONTH FROM Order\_Date) AS Month,

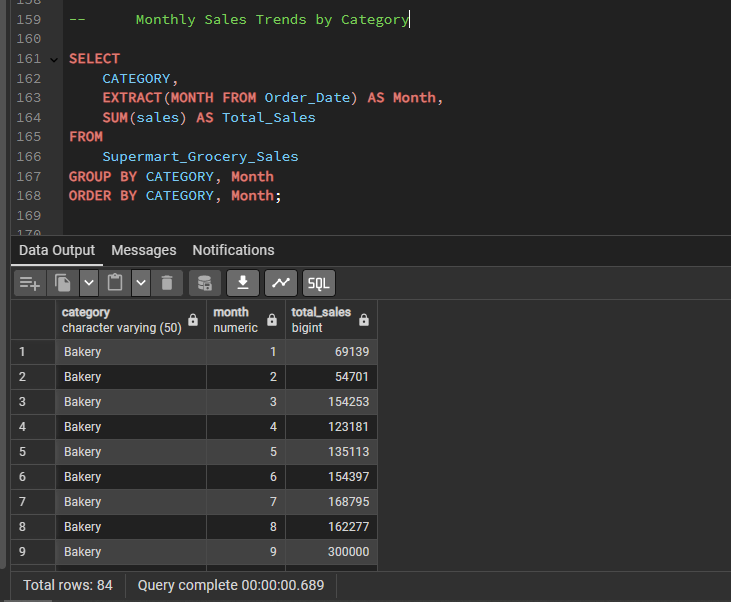
SUM(sales) AS Total\_Sales

FROM

Supermart\_Grocery\_Sales

GROUP BY CATEGORY, Month

ORDER BY CATEGORY, Month;



**7. Understanding which states and cities have the best and worst sales performance.**

-- This ranks cities from highest to lowest sales.

SELECT state,city,

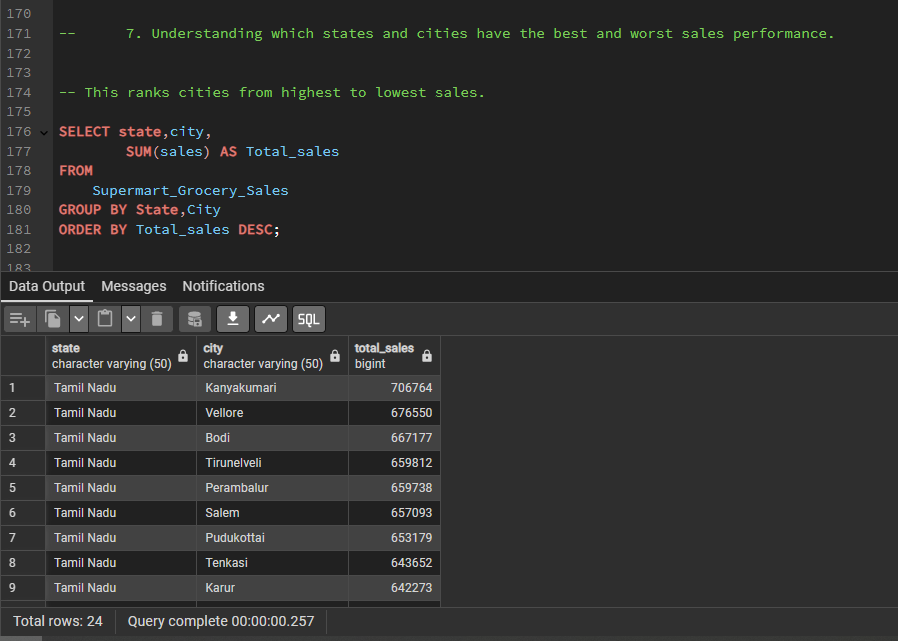
SUM(sales) AS Total\_sales

FROM

Supermart\_Grocery\_Sales

GROUP BY State,City

ORDER BY Total\_sales DESC;



-- Top 5 Cities sales performance

SELECT city,

SUM(sales) AS Total\_sales

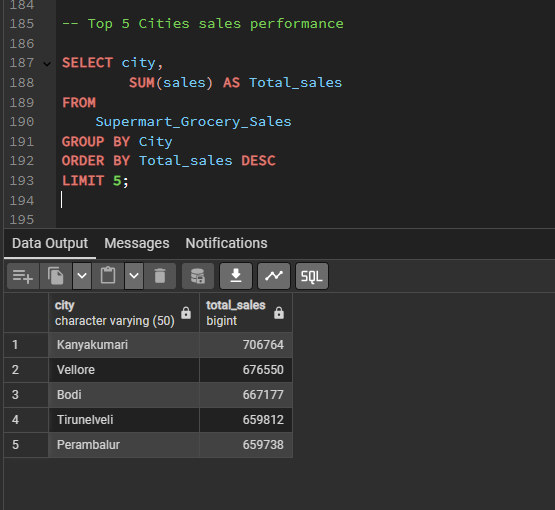
FROM

Supermart\_Grocery\_Sales

GROUP BY City

ORDER BY Total\_sales DESC

LIMIT 5;



-- Worst 5 Cities sales performance

SELECT city,

SUM(sales) AS Total\_sales

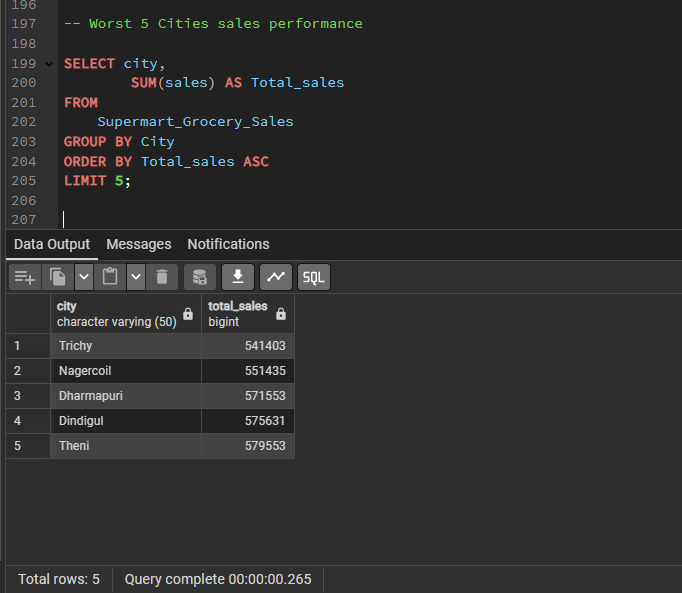
FROM

Supermart\_Grocery\_Sales

GROUP BY City

ORDER BY Total\_sales ASC

LIMIT 5;



**8. Analyzing which regions require better marketing efforts to boost revenue.**

-- Regions with Low Total Sales

SELECT Region,

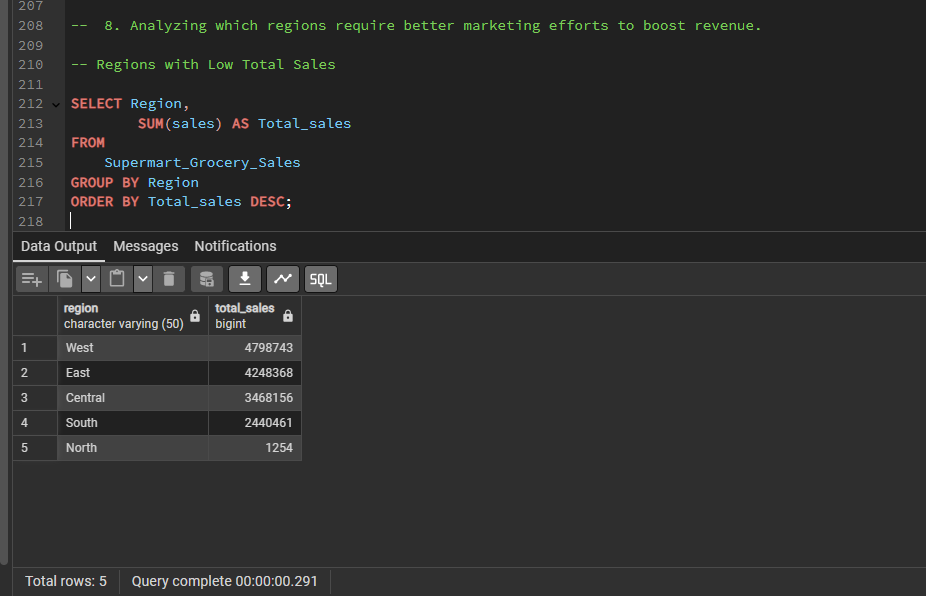
SUM(sales) AS Total\_sales

FROM

Supermart\_Grocery\_Sales

GROUP BY Region

ORDER BY Total\_sales DESC;



-- Regions with Low Profit Margins

SELECT Region,

SUM(sales) AS Total\_Sales,

SUM(Profit) AS Total\_Profits,

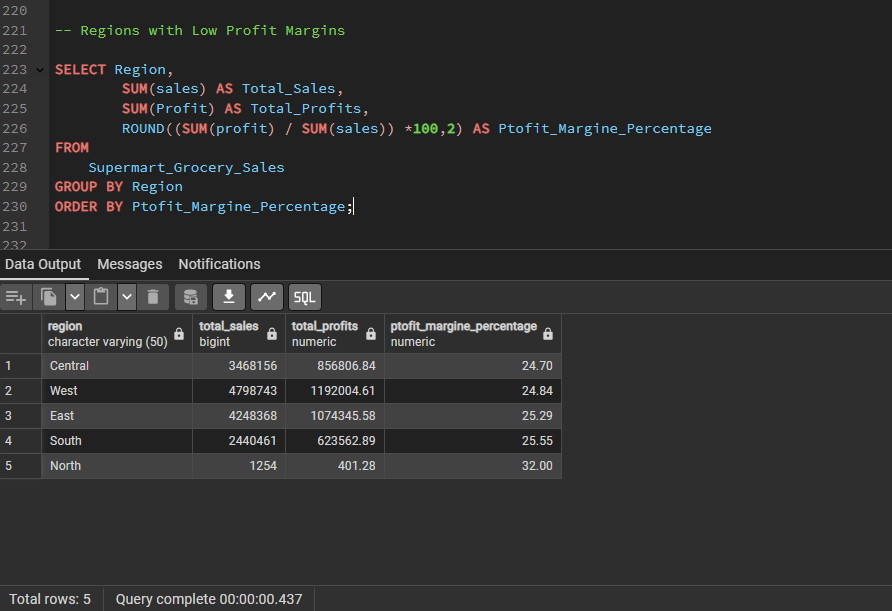
ROUND((SUM(profit) / SUM(sales)) \*100,2) AS Ptofit\_Margine\_Percentage

FROM

Supermart\_Grocery\_Sales

GROUP BY Region

ORDER BY Ptofit\_Margine\_Percentage;



-- Regions Where Discounts Are Too High

SELECT

Region,

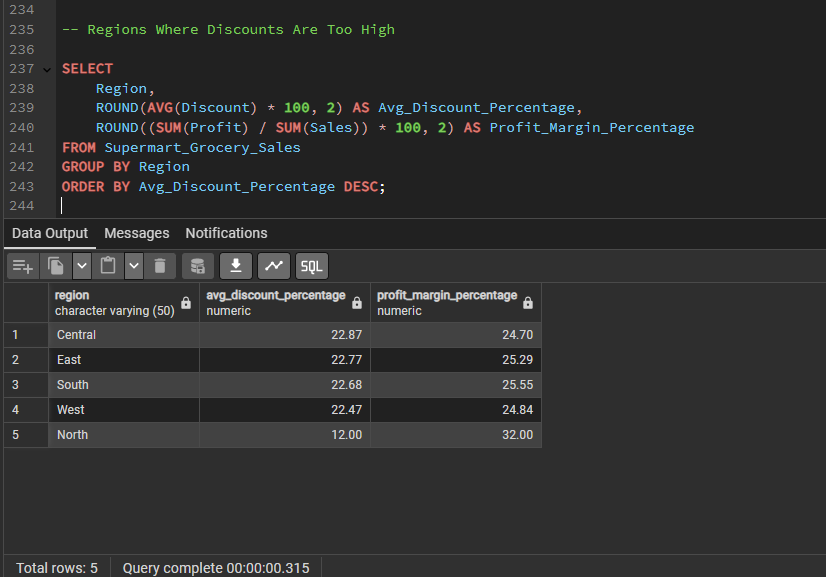
ROUND(AVG(Discount) \* 100, 2) AS Avg\_Discount\_Percentage,

ROUND((SUM(Profit) / SUM(Sales)) \* 100, 2) AS Profit\_Margin\_Percentage

FROM Supermart\_Grocery\_Sales

GROUP BY Region

ORDER BY Avg\_Discount\_Percentage DESC;



-- Regions with High Order Volume but Low Revenue

SELECT Region,

COUNT(Order\_ID) AS Total\_Orders,

SUM(sales) AS Total\_SAles,

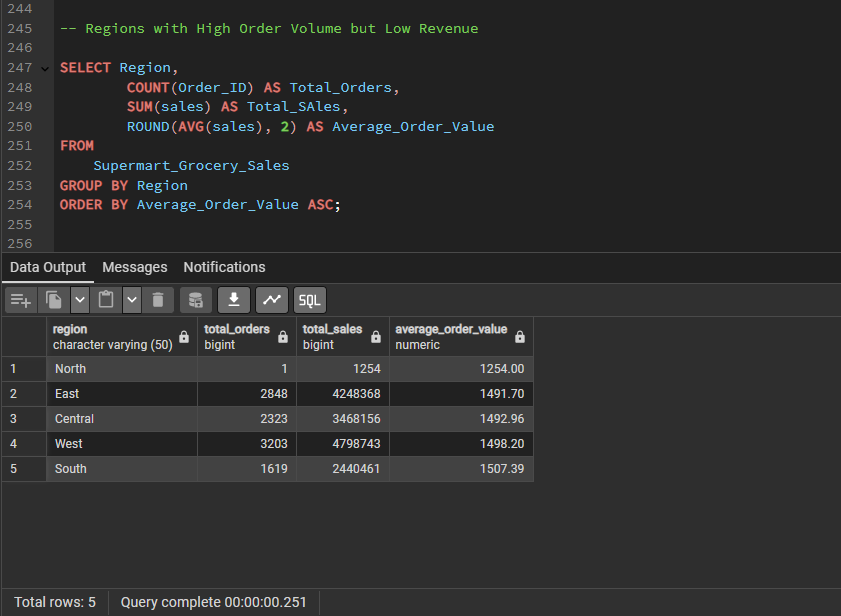
ROUND(AVG(sales), 2) AS Average\_Order\_Value

FROM

Supermart\_Grocery\_Sales

GROUP BY Region

ORDER BY Average\_Order\_Value ASC;



--the Worst Performing 3 Regions Based on All Metrics

SELECT

Region,

SUM(Sales) AS Total\_Sales,

SUM(Profit) AS Total\_Profit,

ROUND((SUM(Profit) / SUM(Sales)) \* 100, 2) AS Profit\_Margin\_Percentage,

ROUND(AVG(Discount) \* 100, 2) AS Avg\_Discount\_Percentage

FROM Supermart\_Grocery\_Sales

GROUP BY Region

ORDER BY Total\_Sales ASC, Profit\_Margin\_Percentage ASC

LIMIT 3;

