Blinkit Sales Data Analysis using SQL

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Tools Used: MS SQL Server, Excel

# PROJECT OBJECTIVE:

This project analyzes grocery sales data from Blinkit using SQL. The objective is to clean the data, extract KPIs, and gain insights across different categories such as fat content, item type, outlet size and location.

# VIEWING ALL IMPORTED DATA:

The following query is used to view the complete Blinkit dataset after importing it into the SQL Server environment:

SELECT \* FROM blinkit\_data

# DATA CLEANING:

Cleaning the Item\_Fat\_Content field ensures data consistency and accuracy in analysis. The presence of multiple variations of the same category (e.g., LF, low fat vs. Low Fat) can cause issues in reporting, aggregations, and filtering. By standardizing these values, we improve data quality, making it easier to generate insights and maintain uniformity in our datasets.

1. UPDATE blinkit\_data

SET Item\_Fat\_Content =

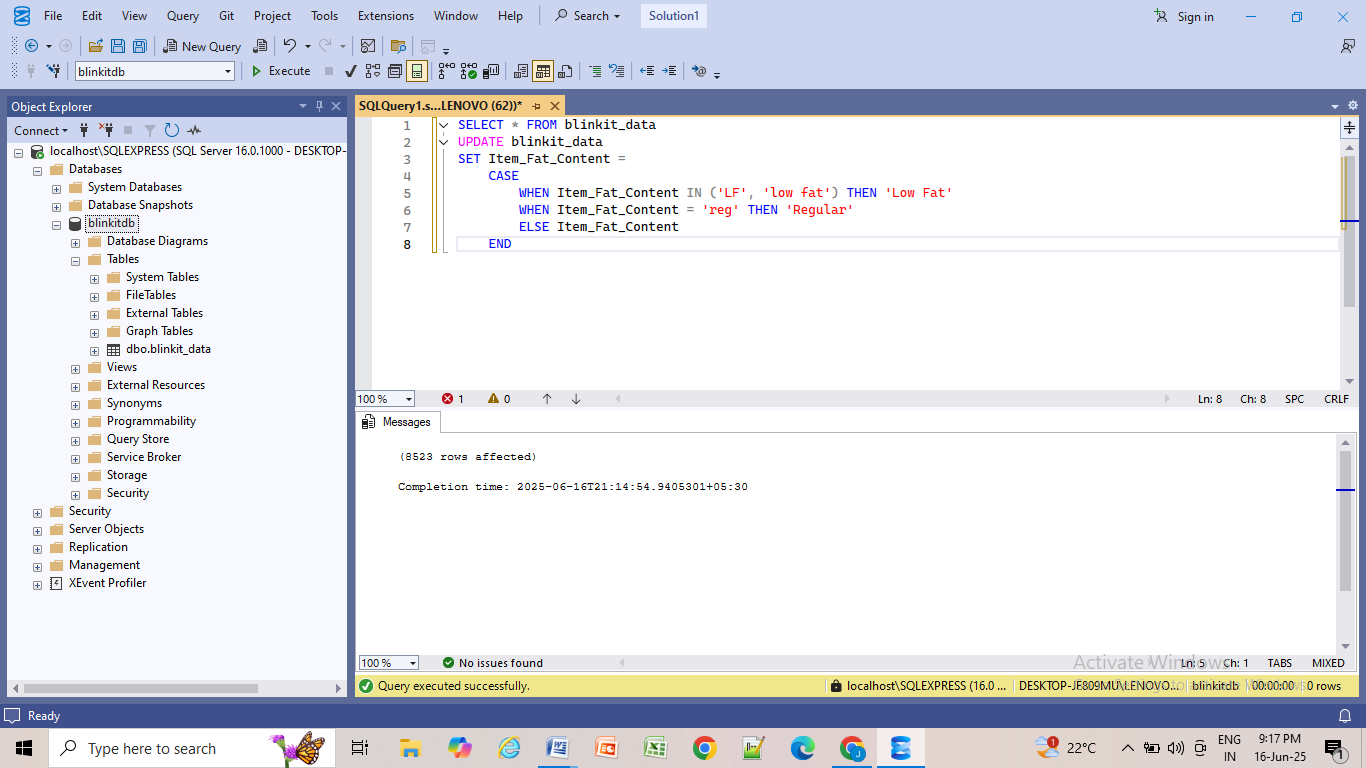
CASE

WHEN Item\_Fat\_Content IN ('LF', 'low fat') THEN 'Low Fat'

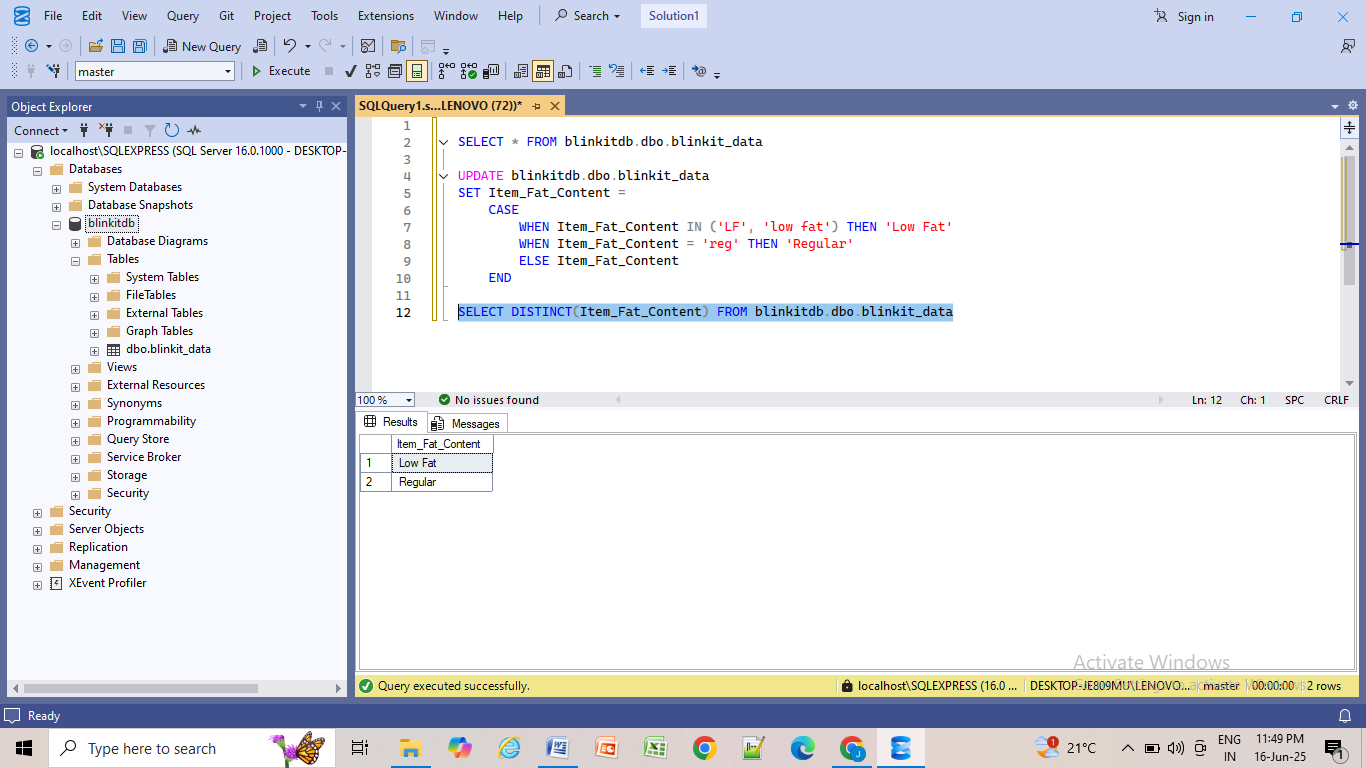
WHEN Item\_Fat\_Content = 'reg' THEN 'Regular'

ELSE Item\_Fat\_Content

END



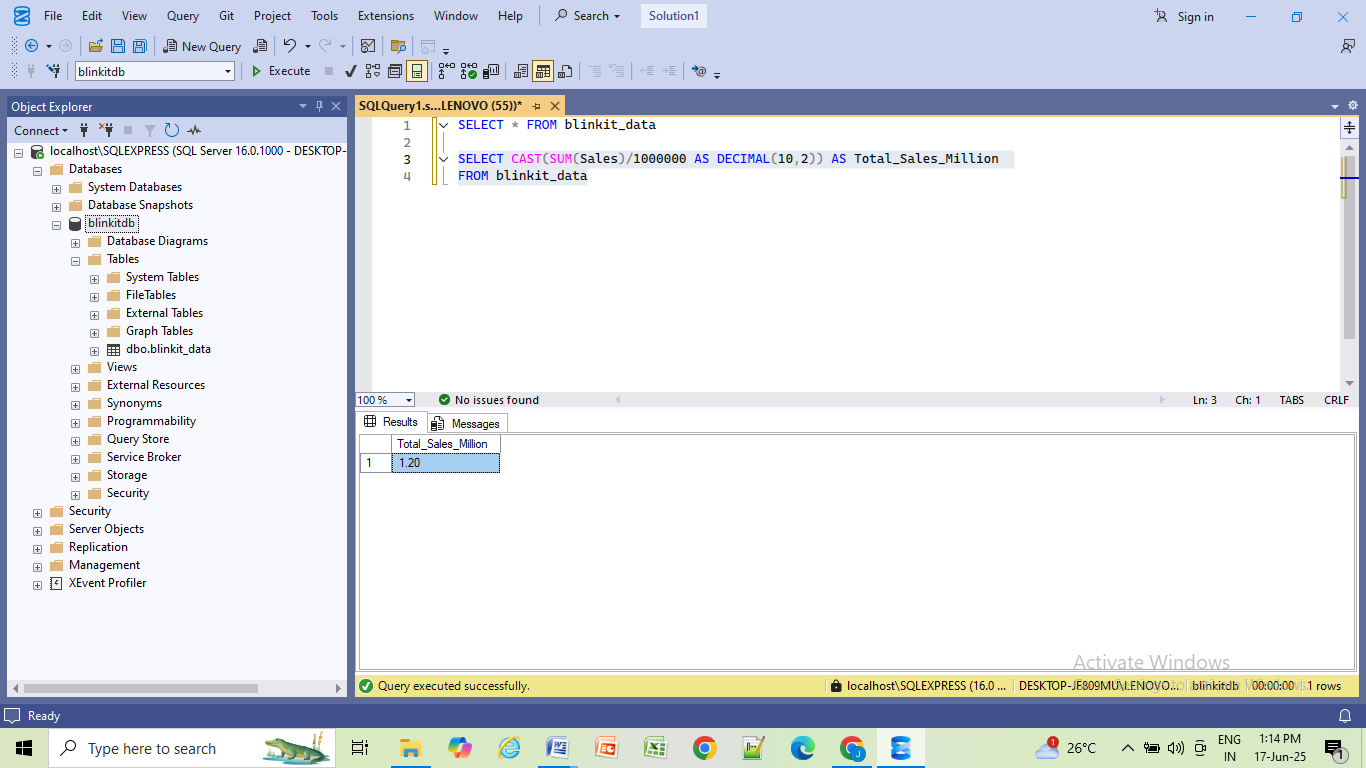
2. SELECT DISTINCT(Item\_Fat\_Content) FROM blinkit\_data



# KPI REQUIREMENT:

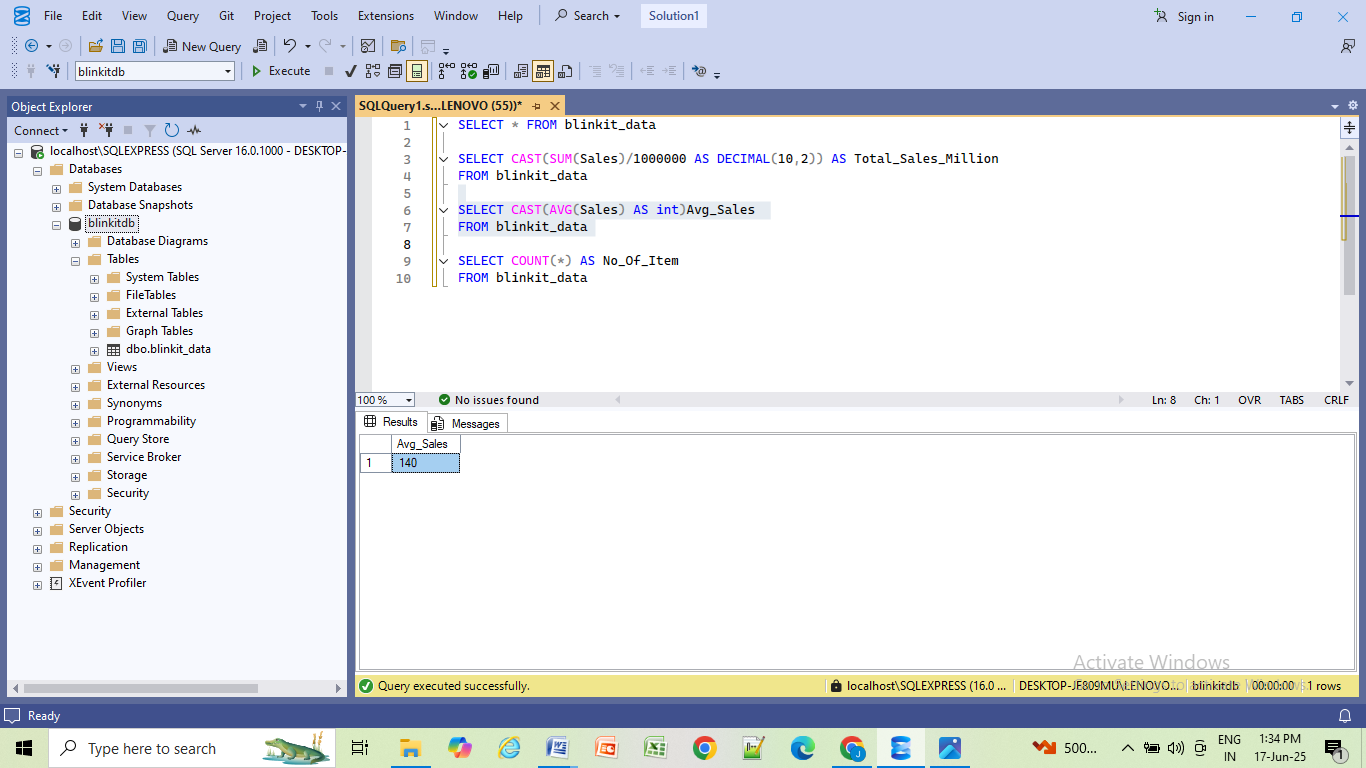
1. TOTAL SALES:

SELECT CAST(SUM(Sales)/1000000 AS DECIMAL(10,2)) AS Total\_Sales\_Million

FROM blinkit\_data

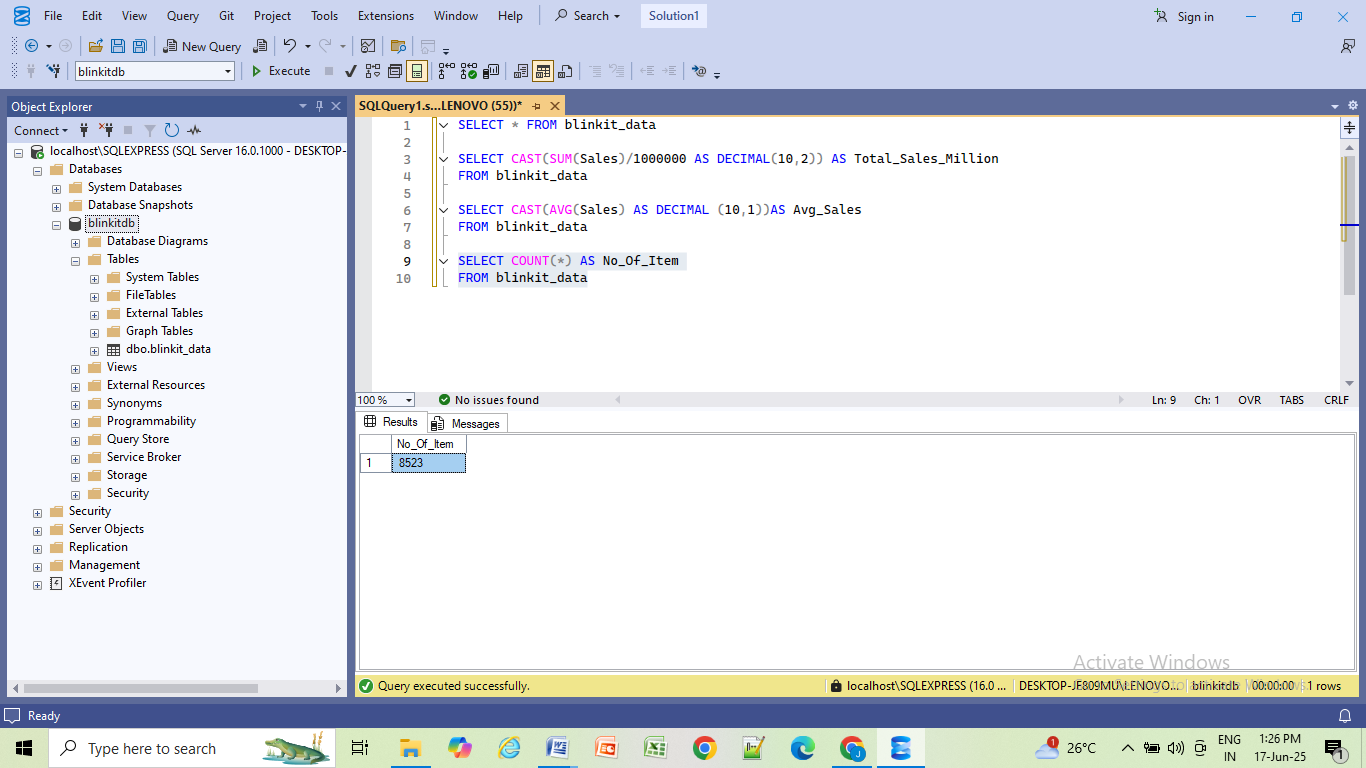
2. AVERAGE SALES

SELECT CAST(AVG(Sales) AS int)AS Avg\_Sales FROM blinkit\_data



3. NO OF ITEMS

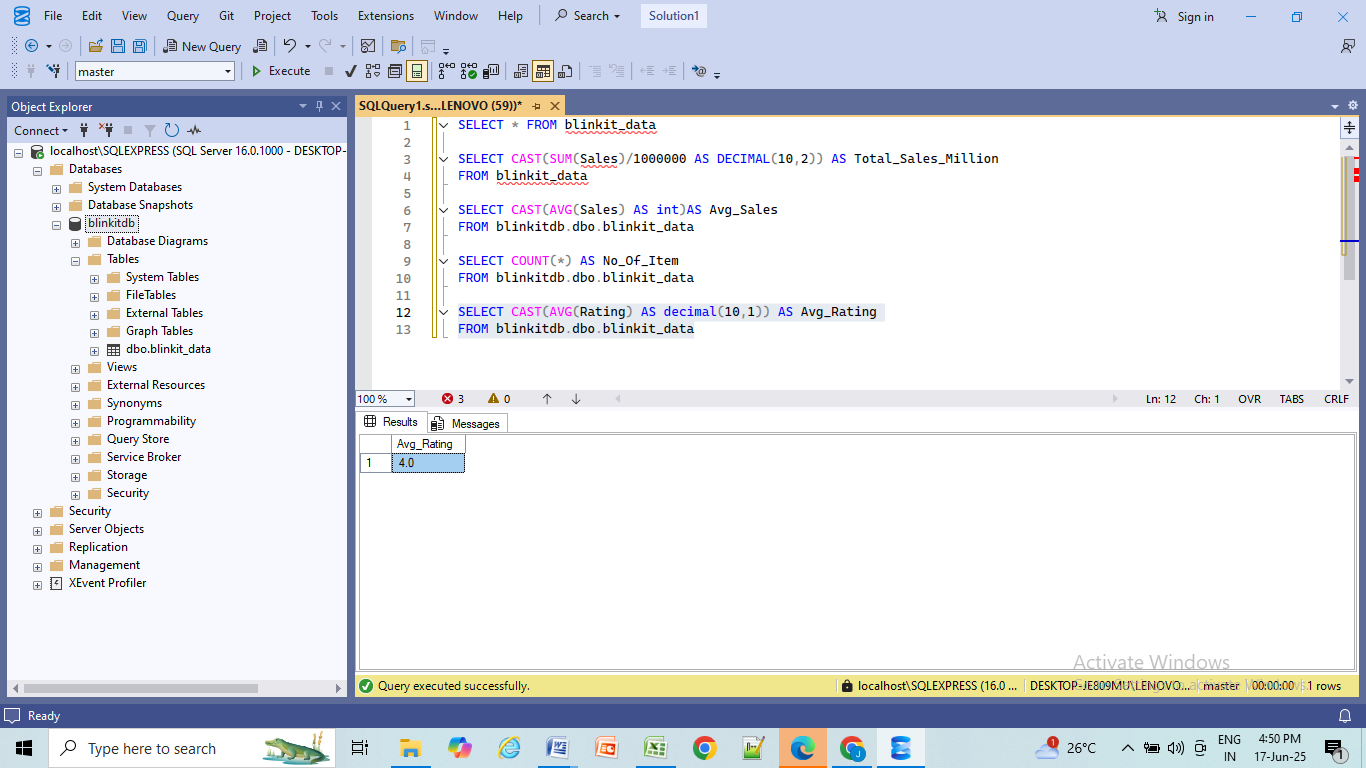
SELECT COUNT(\*) AS No\_Of\_Item FROM blinkit\_data



4. AVERAGE RATING

SELECT CAST(AVG(Rating) AS decimal(10,1)) AS Avg\_Rating

FROM blinkit\_data

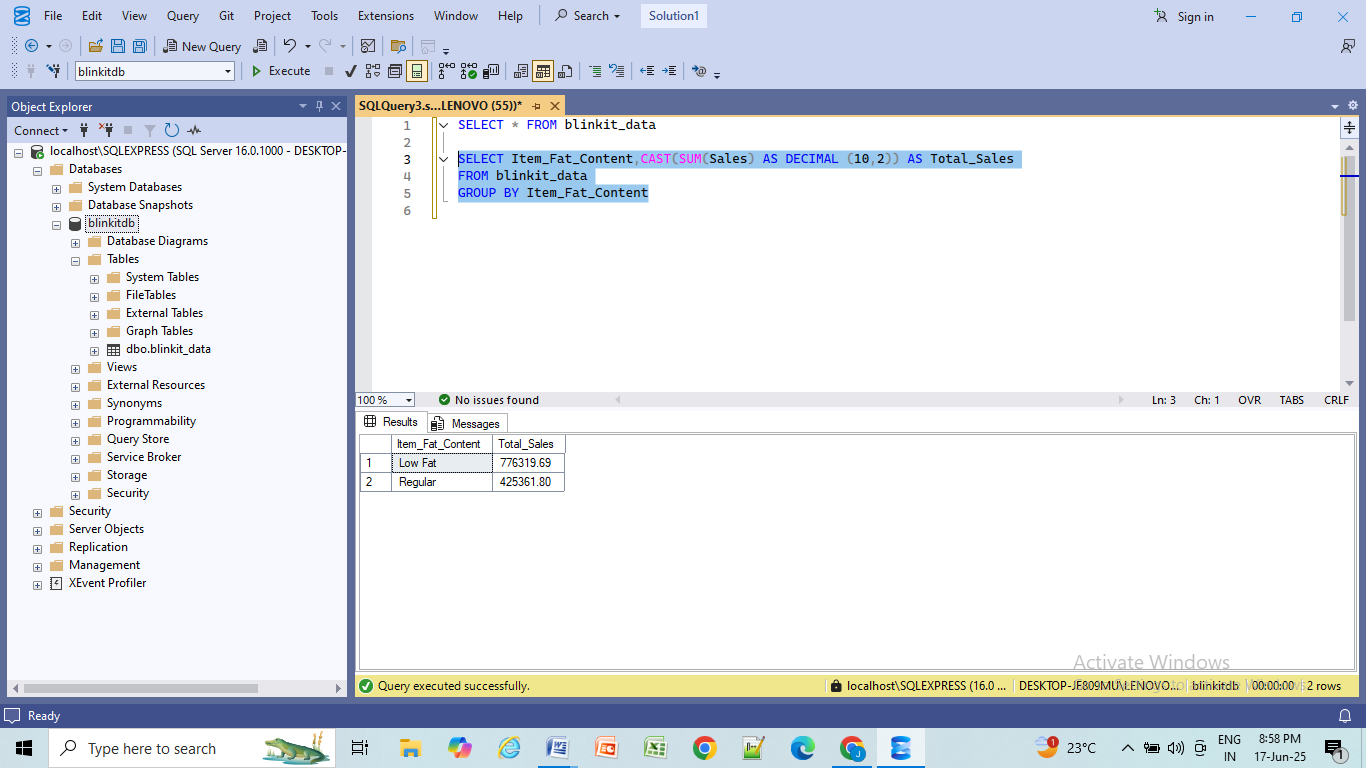


# TOTAL SALES BY FAT CONTENT:

SELECT Item\_Fat\_Content,CAST(SUM(Sales) AS DECIMAL (10,2)) AS Total\_Sales

FROM blinkit\_data

GROUP BY Item\_Fat\_Content



Additional KPI Metrics By Fat Content:

In this section, we assess how key performance indicators (KPIs) such as **Average Sales**, **Number of Items**, and **Average Rating** vary based on the different categories of Item fat content.

SELECT

Item\_Fat\_Content,

CAST(SUM(Sales) AS DECIMAL(10,2)) AS Total\_Sales,

CAST(AVG(Sales) AS DECIMAL(10,2)) AS Avg\_Sales,

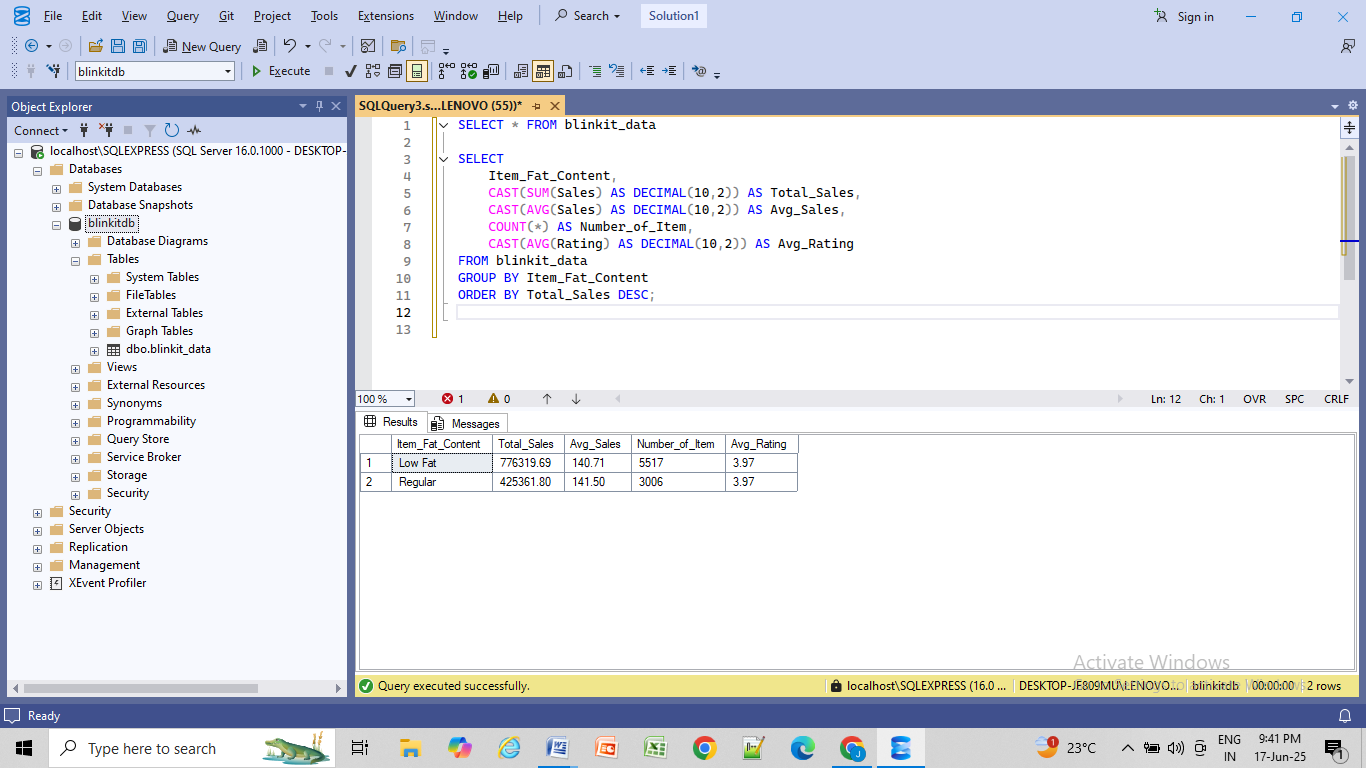
COUNT(\*) AS Number\_of\_Item,

CAST(AVG(Rating) AS DECIMAL(10,2)) AS Avg\_Rating

FROM blinkit\_data

GROUP BY Item\_Fat\_Content

ORDER BY Total\_Sales DESC;

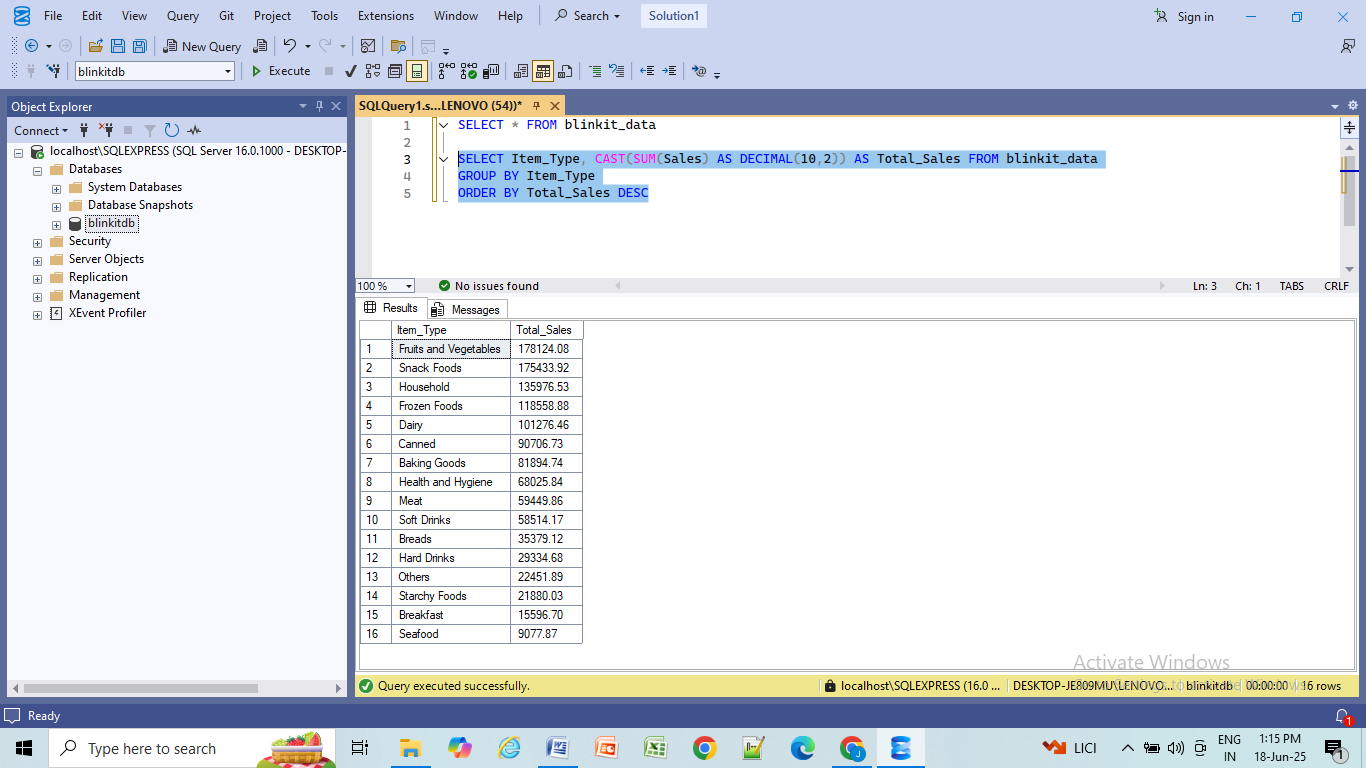


# TOTAL SALES BY ITEM TYPE :

SELECT Item\_Type, CAST(SUM(Sales) AS DECIMAL(10,2)) AS Total\_Sales FROM blinkit\_data

GROUP BY Item\_Type

ORDER BY Total\_Sales DESC



Additional KPI Metrics By Item Type:

In this section, we assess how key performance indicators (KPIs) such as **Average Sales**, **Number of Items**, and **Average Rating** vary based on the different categories of Item type.

SELECT Item\_Type,

CAST(SUM(Sales) AS DECIMAL(10,2)) AS Total\_Sales ,

CAST(AVG(Sales) AS DECIMAL (10,2)) AS Avg\_Sales,

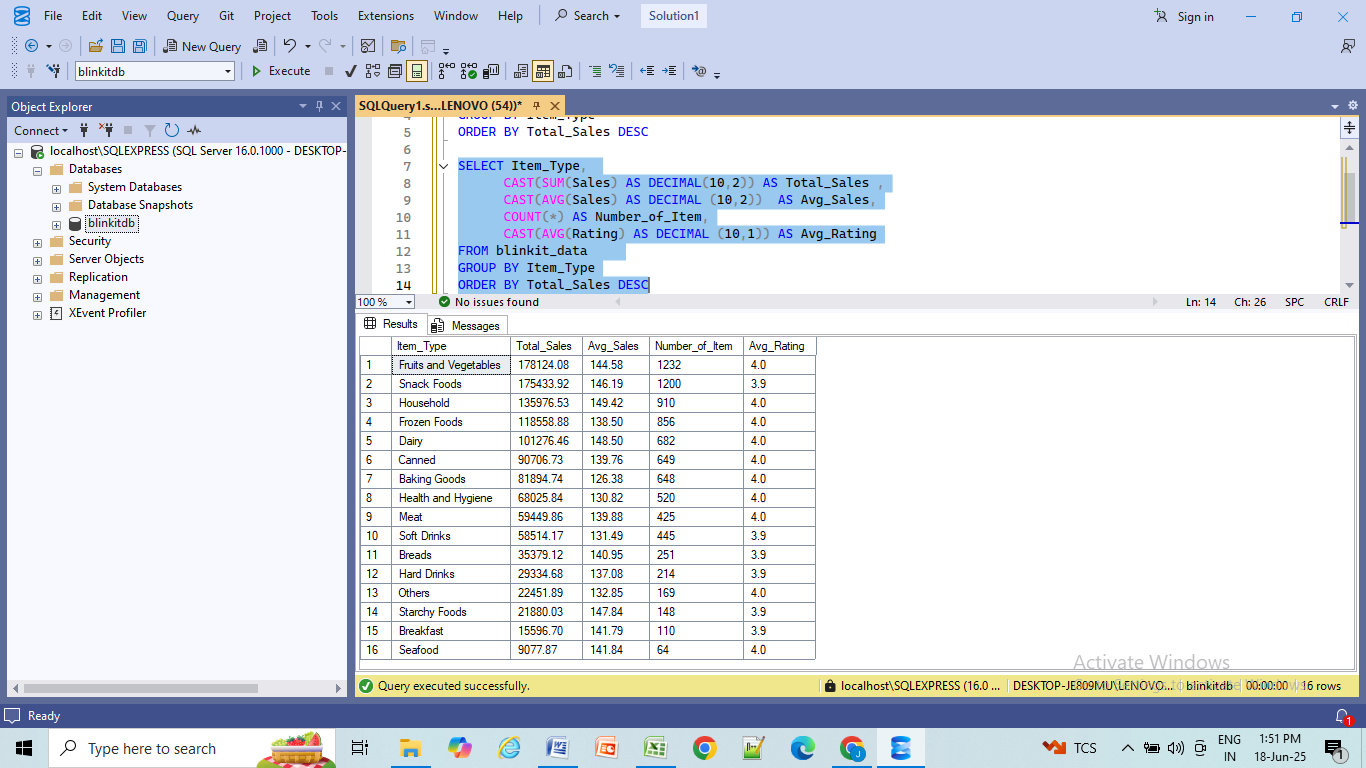
COUNT(\*) AS Number\_of\_Item,

CAST(AVG(Rating) AS DECIMAL (10,1)) AS Avg\_Rating

FROM blinkit\_data

GROUP BY Item\_Type

ORDER BY Total\_Sales DESC



# FAT CONTENT BY OUTLET FOR TOTAL SALES :

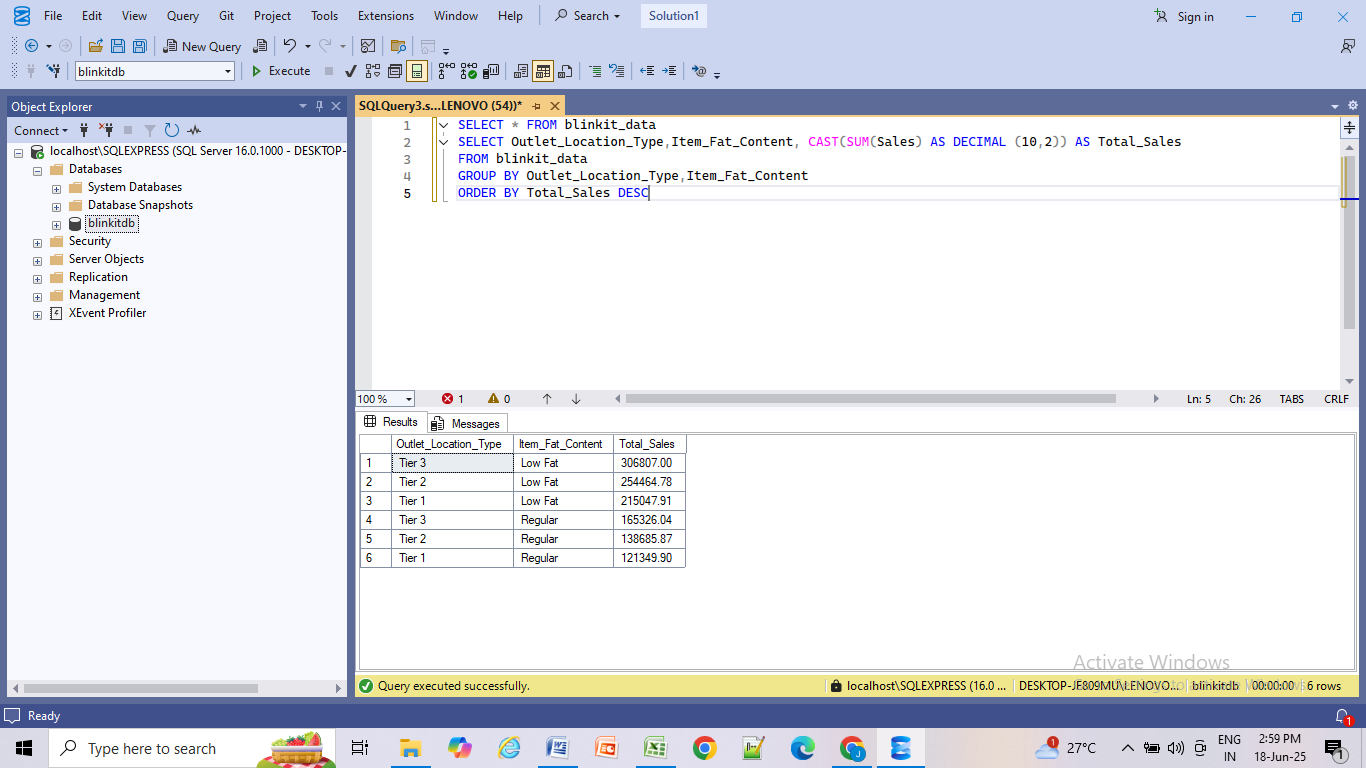
SELECT Outlet\_Location\_Type,Item\_Fat\_Content, CAST(SUM(Sales) AS DECIMAL (10,2))

AS Total\_Sales

FROM blinkit\_data

GROUP BY Outlet\_Location\_Type,Item\_Fat\_Content

ORDER BY Total\_Sales DESC



Additional KPI Metrics by Outlet Type – Total Sales Analysis:

In this section, we assess how key performance indicators (KPIs) such as **Average Sales**, **Number of Items**, and **Average Rating** vary across different outlet segments, grouped by fat content.

SELECT Outlet\_Location\_Type,Item\_Fat\_Content,

CAST(SUM(Sales) AS DECIMAL (10,2)) AS Total\_Sales ,

CAST(AVG(Sales) AS DECIMAL (10,2)) AS Avg\_Sales,

COUNT(\*) AS Number\_of\_Item,

CAST(AVG(Rating) AS DECIMAL (10,1)) AS Avg\_Rating

FROM blinkit\_data

GROUP BY Outlet\_Location\_Type,Item\_Fat\_Content

ORDER BY Total\_Sales DESC

# Screenshot (56).pngTOTAL SALES BY OUTLET ESTABLISHMENT :

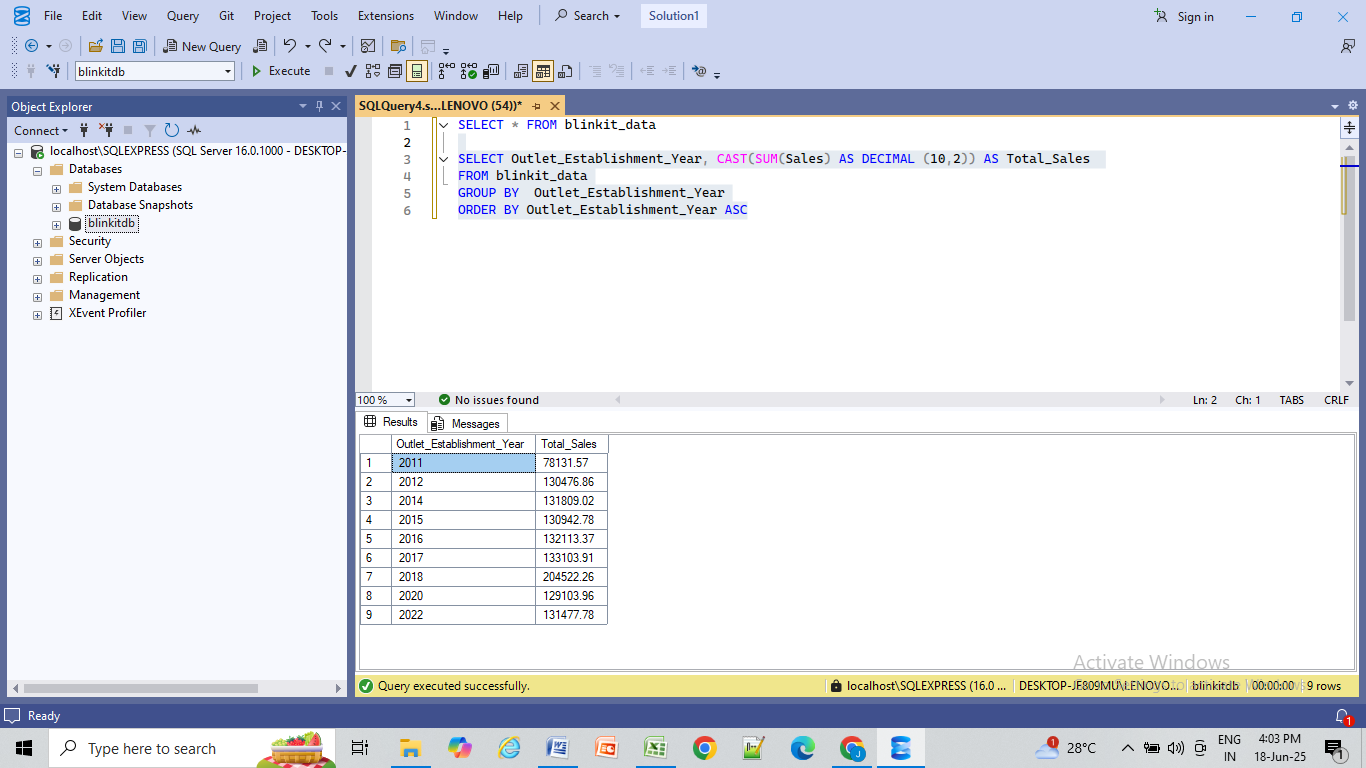
SELECT Outlet\_Establishment\_Year, CAST(SUM(Sales) AS DECIMAL (10,2))

AS Total\_Sales

FROM blinkit\_data

GROUP BY Outlet\_Establishment\_Year

ORDER BY Outlet\_Establishment\_Year ASC



Additional KPI Metrics By Outlet Establishment:

In this section, we assess how key performance indicators (KPIs) such as **Average Sales**, **Number of Items**, and **Average Rating** vary based on the different outlet establishment year.

SELECT Outlet\_Establishment\_Year,

CAST(SUM(Sales) AS DECIMAL (10,2)) AS Total\_Sales,

CAST(AVG(Sales) AS DECIMAL (10,2)) AS Avg\_Sales,

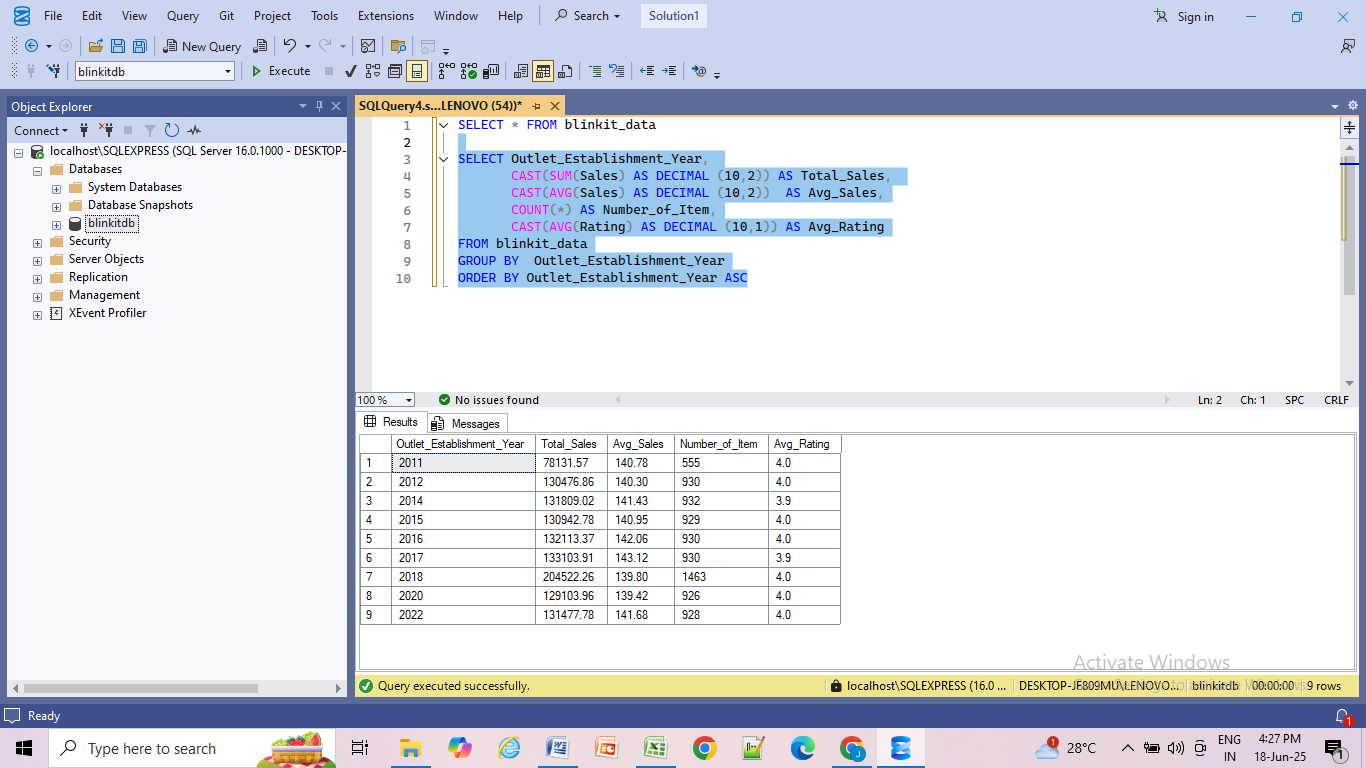
COUNT(\*) AS Number\_of\_Item,

CAST(AVG(Rating) AS DECIMAL (10,1)) AS Avg\_Rating

FROM blinkit\_data

GROUP BY Outlet\_Establishment\_Year

ORDER BY Outlet\_Establishment\_Year ASC



# PERCENTAGE OF SALES BY OUTLET SIZE :

SELECT Outlet\_Size,

CAST(SUM(Sales) AS DECIMAL (10,2)) AS Total\_Sales,

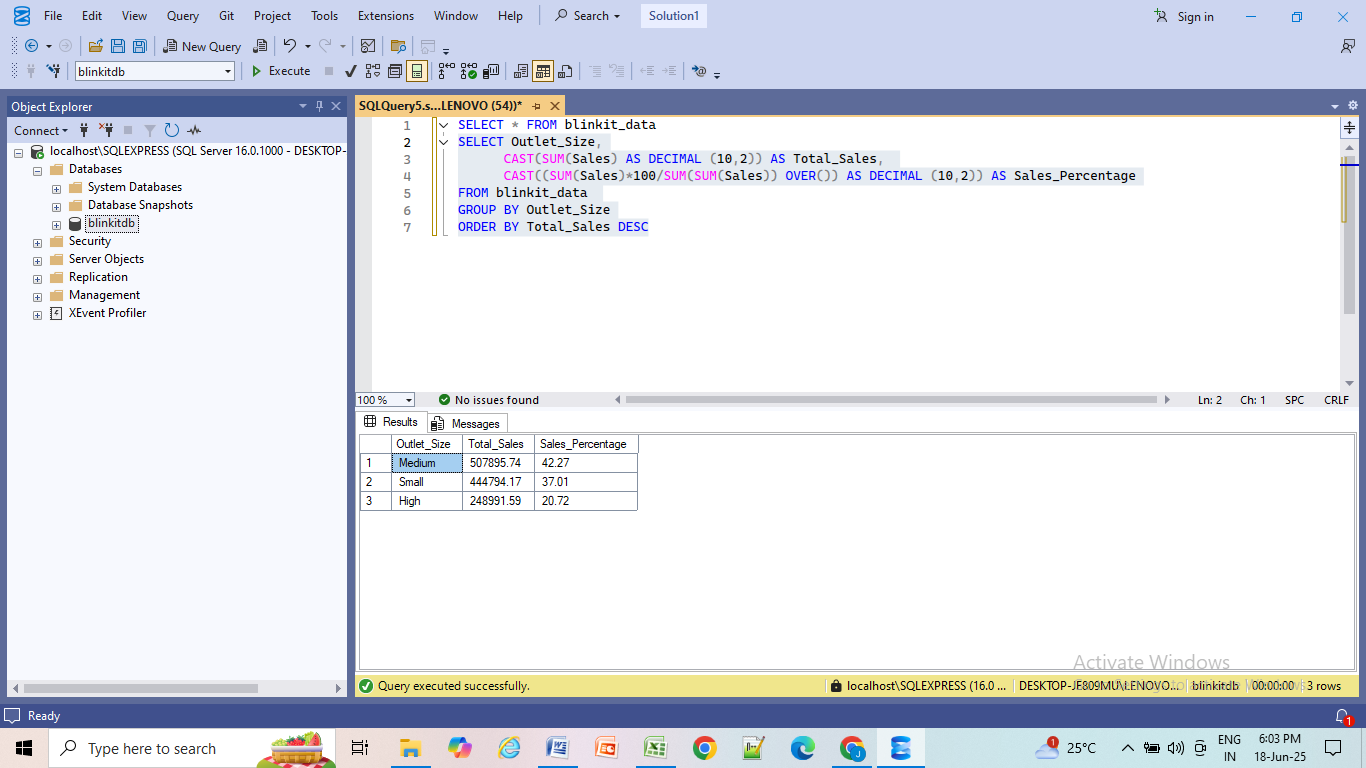
CAST((SUM(Sales)\*100/SUM(SUM(Sales)) OVER()) AS DECIMAL (10,2))

AS Sales\_Percentage

FROM blinkit\_data

GROUP BY Outlet\_Size

ORDER BY Total\_Sales DESC



# SALES BY OUTLET LOCATION :

SELECT Outlet\_Location\_Type,

CAST(SUM(Sales) AS DECIMAL (10,2)) AS Total\_Sales,

CAST((SUM(Sales)\*100/SUM(SUM(Sales)) OVER()) AS DECIMAL (10,2)) AS Sales\_Percentage,

CAST(AVG(Sales) AS DECIMAL (10,2)) AS Avg\_Sales,

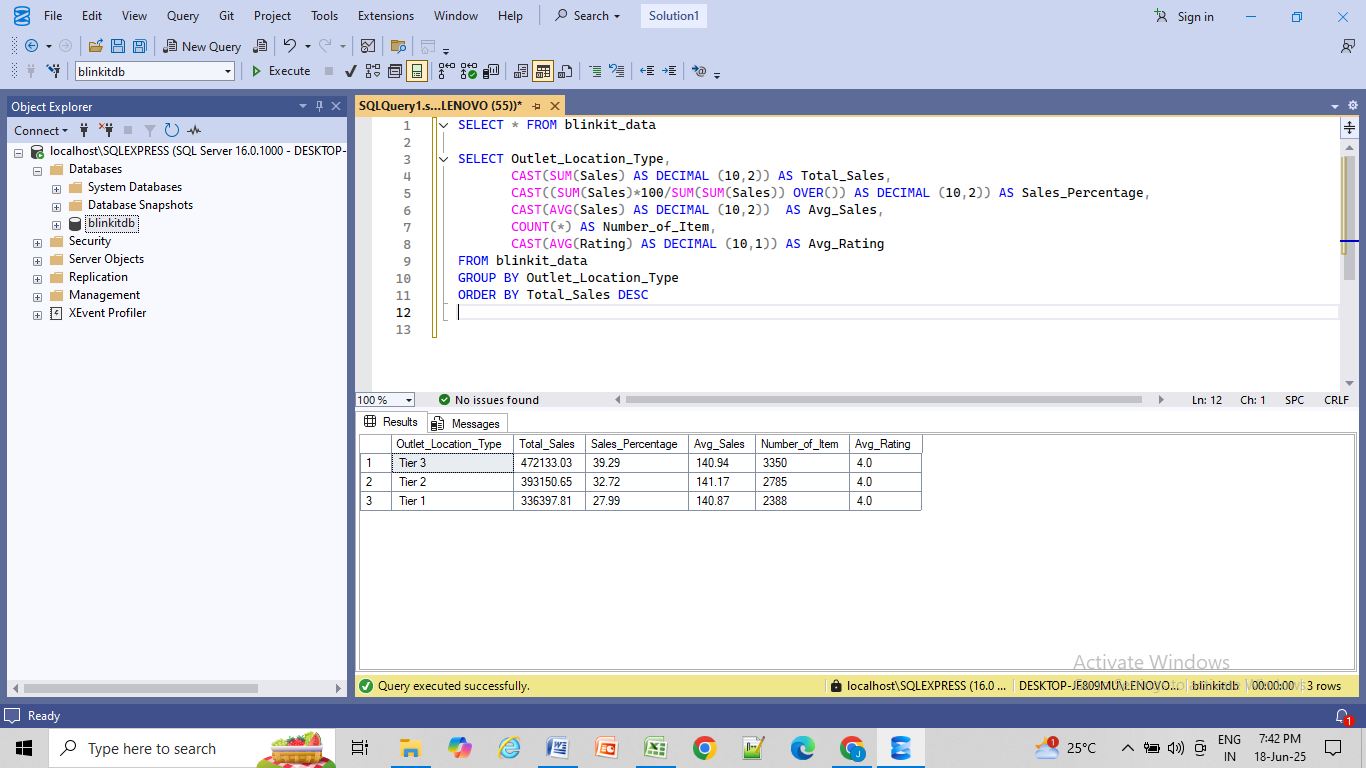
COUNT(\*) AS Number\_of\_Item,

CAST(AVG(Rating) AS DECIMAL (10,1)) AS Avg\_Rating

FROM blinkit\_data

GROUP BY Outlet\_Location\_Type

ORDER BY Total\_Sales DESC



# SALES BY OUTLET TYPE :

SELECT Outlet\_Type,

CAST(SUM(Sales) AS DECIMAL (10,2)) AS Total\_Sales,

CAST((SUM(Sales)\*100/SUM(SUM(Sales)) OVER()) AS DECIMAL (10,2)) AS Sales\_Percentage,

CAST(AVG(Sales) AS DECIMAL (10,2)) AS Avg\_Sales,

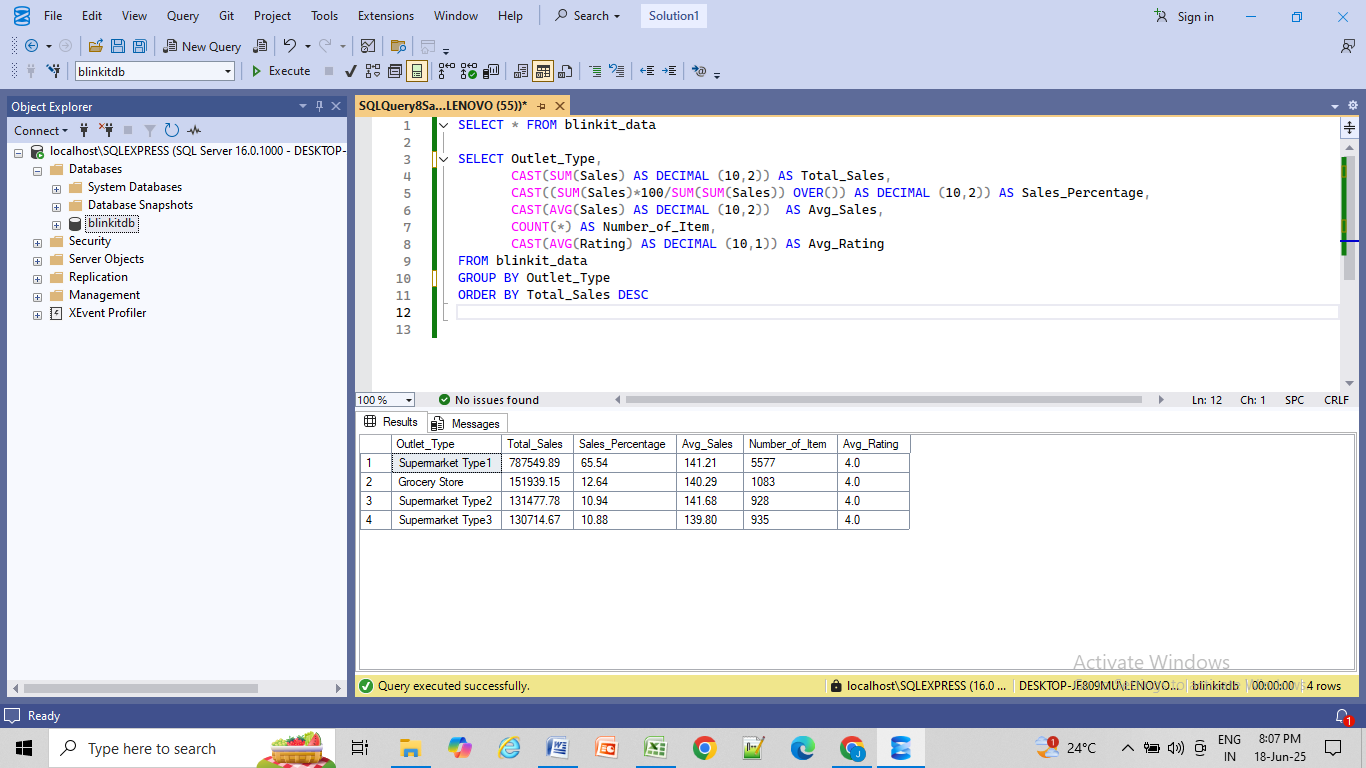
COUNT(\*) AS Number\_of\_Item,

CAST(AVG(Rating) AS DECIMAL (10,1)) AS Avg\_Rating

FROM blinkit\_data

GROUP BY Outlet\_Type

ORDER BY Total\_Sales DESC



# CONCLUSION :

The analysis highlights that sales performance varies by fat content and outlet type. **Low Fat** products and **Supermarket Type1 outlets** showed strong sales, while customer ratings remained consistently high across all categories.

*Visualizations and dashboards based on this analysis are available in my separate Power BI project uploaded on GitHub.*