DATA ANALYST

Intenship Task 8

DESCRIPTION

The task focuses on analyzing sales data using SQL window functions in a database. It includes aggregating total sales per customer, ranking customers by region, calculating running totals, measuring monthly sales growth, and identifying top products per category. The goal is to extract meaningful business insights

PREPARED BY

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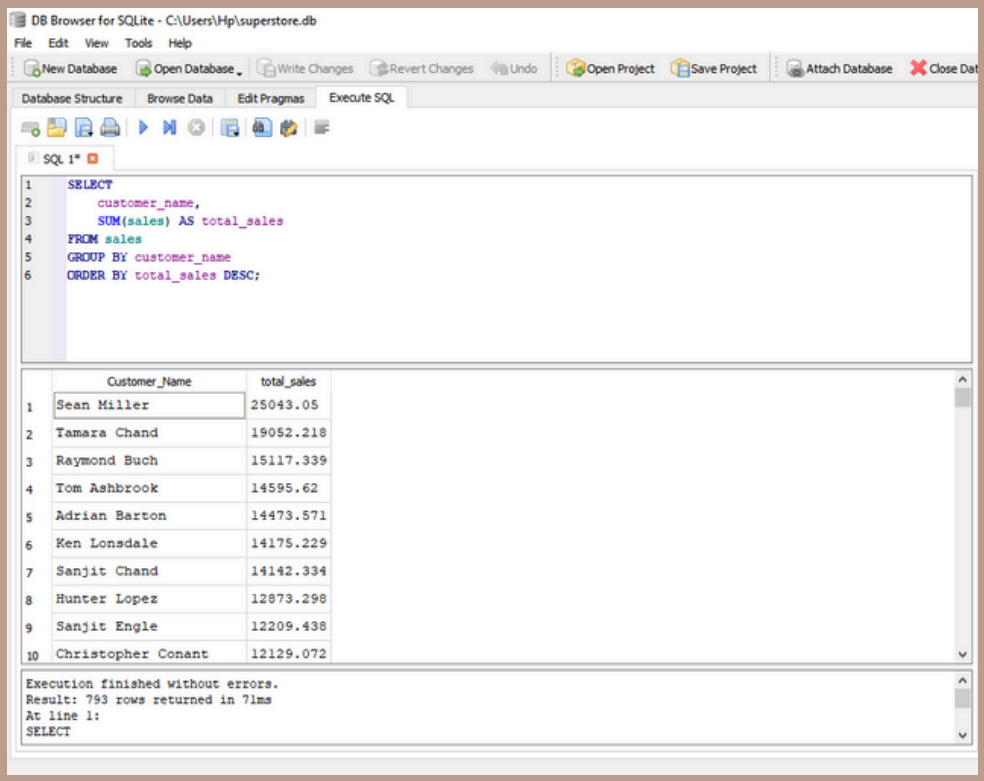
MY WORK

I imported the cleaned Superstore dataset into a database and created the necessary table structure. I executed SQL queries to calculate total sales per customer and ranked customers by region using RANK and DENSE_RANK window functions. I generated running totals to visualize cumulative sales trends, calculated month-over-month sales growth using LAG, and identified the top 3 products in each category. All results were verified, exported as CSV files, and analyzed for patterns. This process allowed me to understand regional performance, customer behavior, product trends, and overall sales dynamics within the dataset, providing actionable insights for business decisions.

DATASET

superstore_dataset

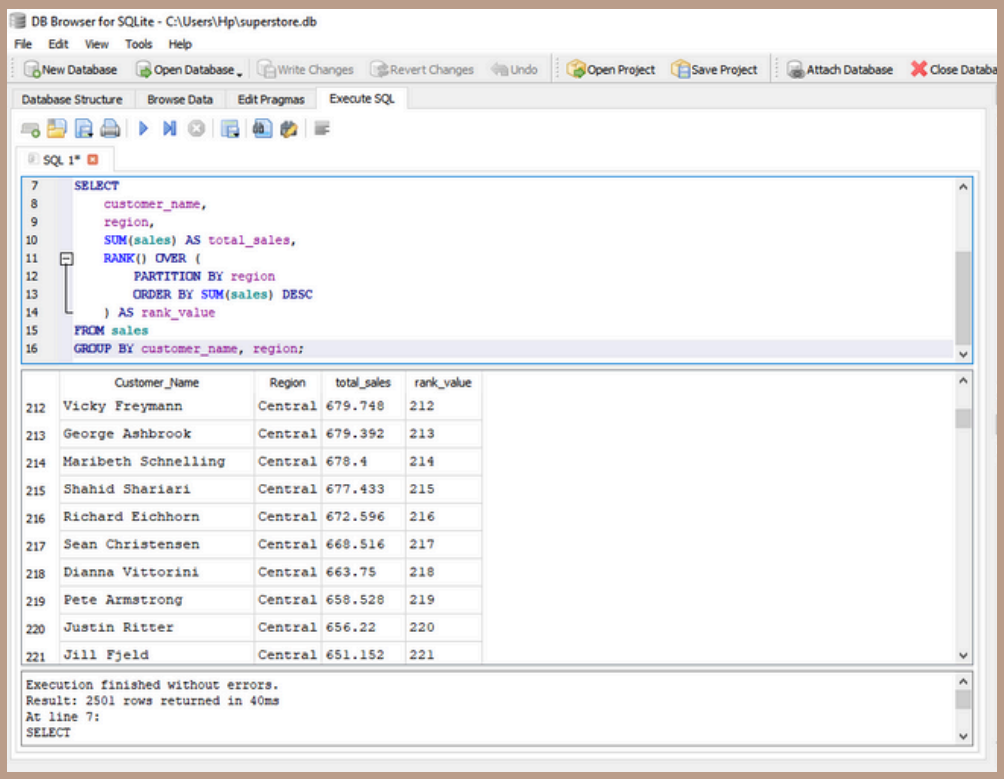
TOTAL SALES PER CUSTOMER:



output csv

Customers in certain regions contributed significantly higher sales, indicating key high-value clients. Overall, sales were concentrated among top-performing customers, highlighting the importance of focusing on loyal or repeat customers

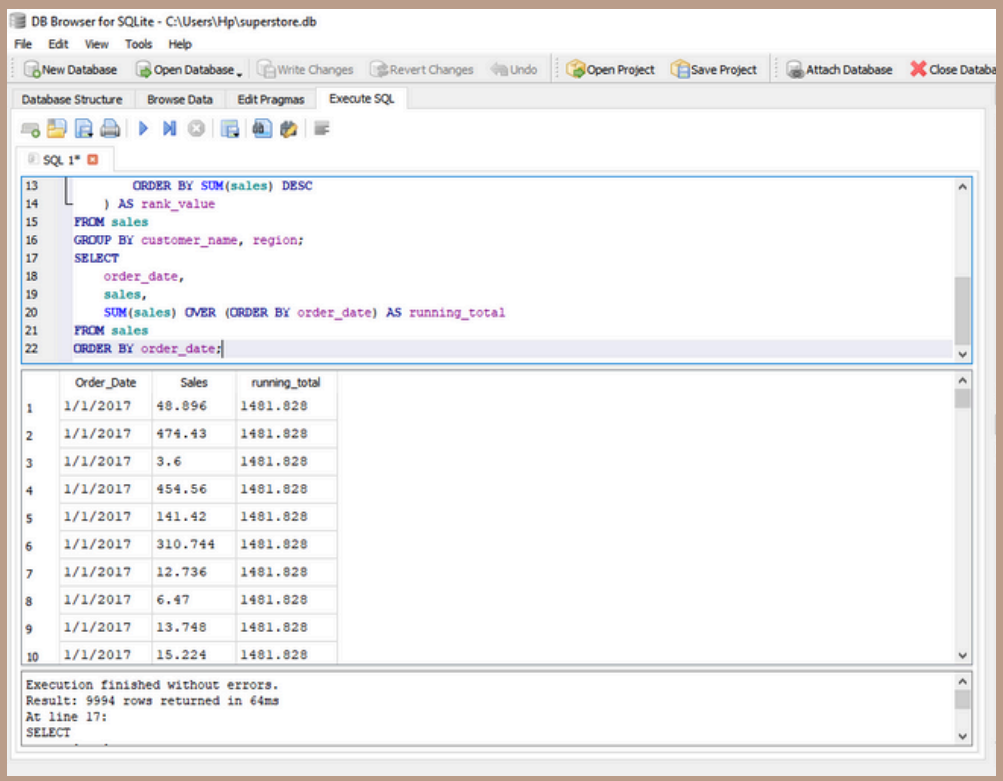
RANKING CUSTOMERS BY REGION :



output csv

- Ranking showed that some customers consistently dominated sales in their regions. RANK and DENSE_RANK comparisons revealed ties, emphasizing multiple top contributors in certain areas, which can guide regional marketing and sales strategies.

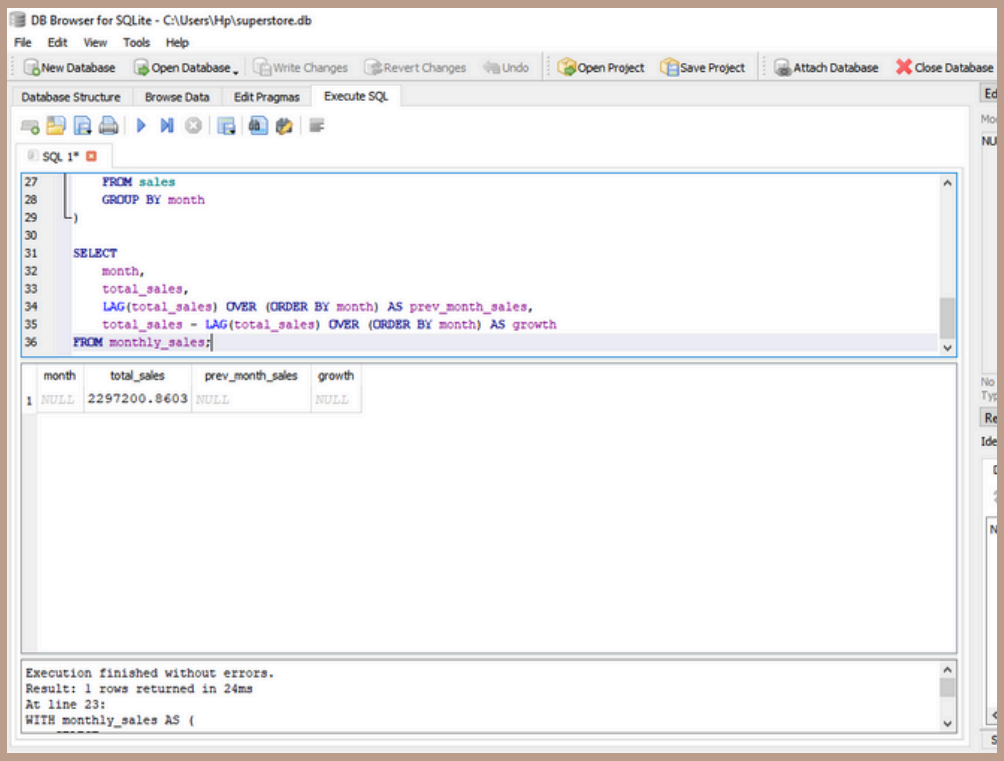
RUNNING TOTAL :



output csv

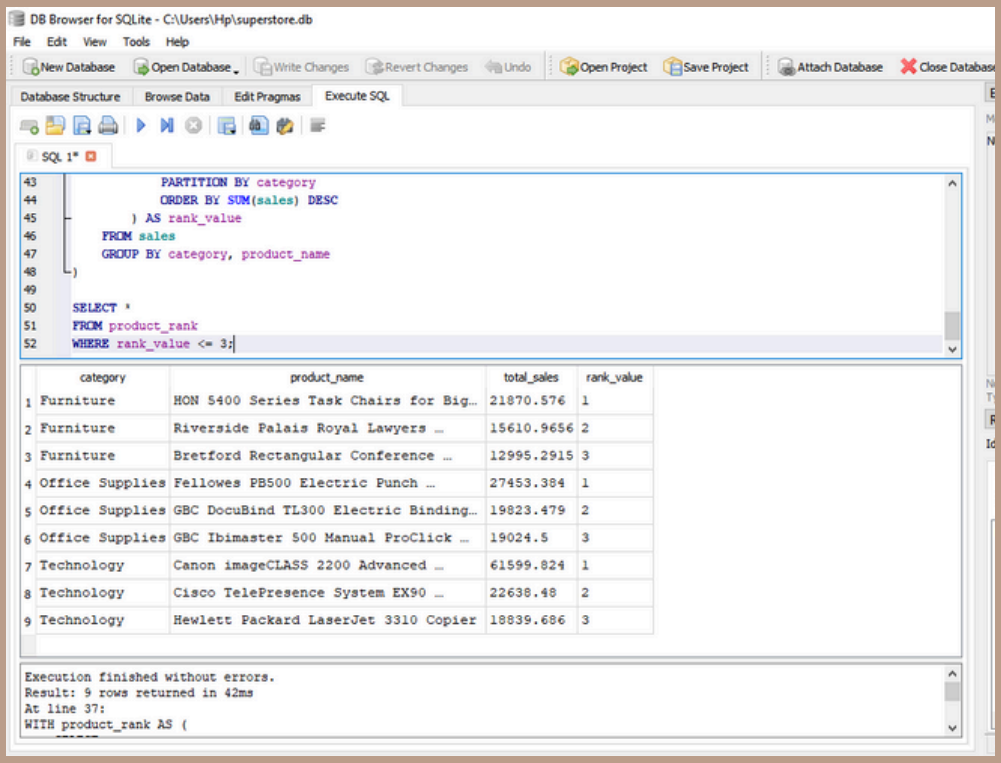
- Cumulative sales revealed seasonal peaks and consistent growth trends over time. This helped identify periods of high sales activity, supporting better inventory planning and sales forecasting

MONTHLY GROWTH :



- Month-over-month growth calculation showed fluctuations in sales, identifying months with significant increases or decreases. This insight helps pinpoint trends, seasonal effects, and areas needing promotional focus.

TOP 3 PRODUCTS PER CATEGORY :



	category	product_name	total_sales	rank_value
1	Furniture	HON 5400 Series Task Chairs for Big…	21870.576	1
2	Furniture	Riverside Palais Royal Lawyers …	15610.9656	2
3	Furniture	Bretford Rectangular Conference …	12995.2915	3
4	Office Supplies	Fellowes PB500 Electric Punch …	27453.384	1
5	Office Supplies	GBC DocuBind TL300 Electric Binding…	19823.479	2
6	Office Supplies	GBC Ibimaster 500 Manual ProClick …	19024.5	3
7	Technology	Canon imageCLASS 2200 Advanced …	61599.824	1
8	Technology	Cisco TelePresence System EX90 …	22638.48	2
9	Technology	Hewlett Packard LaserJet 3310 Copier	18839.686	3

output csv

- Certain products consistently drove the most revenue in their categories. Focusing on these high-performing products can optimize marketing, inventory, and cross-selling opportunities for maximum profitability.