

# **SUPERSTORE PROJECT**

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# INTRODUCTION

The Superstore Sales Analysis Project focuses on exploring and analyzing a retail dataset, known as the "Superstore" dataset, which contains detailed records of sales transactions. This dataset includes various attributes such as order details, customer segments, product categories, regional information, shipping details, sales figures, discounts, and profit margins. The primary goal of this project is to leverage SQL to derive meaningful insights and perform data-driven decision-making.

# PROJECT OVERVIEW

The Superstore Sales Analysis Project aims to provide a comprehensive understanding of a retail store's sales data using SQL. By analyzing the Superstore dataset, the project seeks to uncover insights that can drive business decisions and optimize performance.

# PROBLEMS

- Basic Select and Filtering
- Aggregation with GROUP BY
- Using IN with Multiple Filters
- Subquery
- HAVING Clause
- Using LIKE
- Using UNION
- Views

# OBJECTIVES

- Data Exploration
- Data Analysis
- Insight Generation
- SQL Proficiency
- Business Strategy Recommendations

# BASIC SELECT AND FILTERING

**RETRIEVE ALL ORDERS WHERE THE DISCOUNT  
IS GREATER THAN 0.3 AND PROFIT IS**

```
SELECT *  
FROM superstore  
WHERE Discount > 0.3 AND Profit > 0;
```

# AGGREGATION WITH GROUP BY

**FIND THE TOTAL QUANTITY SOLD AND  
AVERAGE DISCOUNT PER SUB-CATEGORY.**

```
SELECT SubCategory, SUM(Quantity) AS  
Total_Quantity,AVG(discount)  
FROM superstore  
GROUP BY SubCategory;
```

# USING IN WITH MULTIPLE FILTERS

**RETRIEVE ALL RECORDS WHERE THE  
CATEGORY IS EITHER 'FURNITURE' OR 'OFFICE  
SUPPLIES' AND THE SALES EXCEED \$500.**

```
SELECT *  
FROM superstore  
WHERE Category IN ('Furniture','Office Supplies') AND  
Sales > 500;
```



# SUBQUERY

**RETRIEVE THE STATES WITH TOTAL SALES  
ABOVE THE AVERAGE SALES.**

```
SELECT State, SUM(Sales) AS TotalSales  
FROM superstore  
GROUP BY State  
HAVING TotalSales > (SELECT AVG(Sales) FROM  
superstore);
```

# HAVING CLAUSE

**RETRIEVE SUB-CATEGORIES WHERE THE  
TOTAL SALES EXCEED \$10,000, AND TOTAL  
QUANTITY ORDERED IS GREATER THAN 100.**

```
SELECT SubCategory, SUM(Sales) AS TotalSales,  
SUM(Quantity) AS TotalQuantity  
FROM superstore  
GROUP BY SubCategory  
HAVING TotalSales > 10000 AND TotalQuantity > 100;
```

# USING LIKE

**RETRIEVE ALL RECORDS WHERE THE CITY  
NAME STARTS WITH THE LETTER 'S.'**

```
SELECT *  
FROM superstore  
WHERE City LIKE 'S%';
```

# UNION

**COMBINE TWO QUERIES: ONE THAT RETRIEVES ORDERS FROM THE "WEST" REGION, AND ANOTHER THAT RETRIEVES ORDERS FROM THE "EAST" REGION.**

```
SELECT *  
FROM superstore  
WHERE Region = 'West'  
UNION  
SELECT *  
FROM superstore  
WHERE Region = 'East';
```

# VIEWS

**CREATE A VIEW THAT SHOWS THE TOTAL  
SALES AND PROFIT FOR EACH STATE.**

```
CREATE VIEW StateSalesAndProfit AS  
SELECT State, SUM(Sales) AS TotalSales, SUM(Profit) AS  
TotalProfit  
FROM superstore  
GROUP BY State;
```

# RESULT

The results of the Superstore Sales Analysis Project provide actionable insights and recommendations based on the detailed analysis of sales, profit, and customer behavior.

## ● Sales and Profit Performance -

Total sales across all regions and categories were analyzed. Significant contributions came from the "Office Supplies" category, followed by "Furniture" and "Technology."

The "Technology" category had the highest profit margins despite higher discounts, indicating a strong market for high-margin tech products.

Certain products and sub-categories, especially in "Furniture," had negative profit margins, suggesting inefficiencies or pricing issues.



## ● Regional Insights -

- Top Performing Regions:

The "West" and "East" regions contributed the most to overall sales and profit.

- Low Performing Regions:

The "South" region lagged behind in both sales and profit, indicating potential for focused sales strategies or market expansion.

- Profitability by State:

Certain states like California and New York performed exceptionally well in terms of both sales and profit, while others such as Texas showed lower profit margins despite reasonable sales.



## ● Customer Segment Analysis -

- Consumer Segment:

The "Consumer" segment accounted for the majority of sales, followed by "Corporate" and "Home Office."

- Profit Contribution:

The "Corporate" segment was the most profitable, suggesting that targeting business customers could yield higher returns.



## ● Discount Impact -

- High Discounts:

While higher discounts led to increased sales volumes, they negatively impacted profit margins, especially in the "Furniture" category.

- Optimal Discounting:

Moderate discounts (10-20%) in the "Technology" category maintained profitability while boosting sales.





## ● Shipping Mode Performance -

- Ship Mode Insights:

"Standard Class" was the most commonly used shipping mode, balancing cost and delivery time effectively.

- Profit by Ship Mode:

"First Class" and "Same Day" shipping modes contributed to higher profitability per order despite higher costs, likely due to customer preference for faster delivery.



## ● Product Performance -

- Top-Selling Products:

Certain products in the "Technology" category, like phones and accessories, were consistent top sellers.

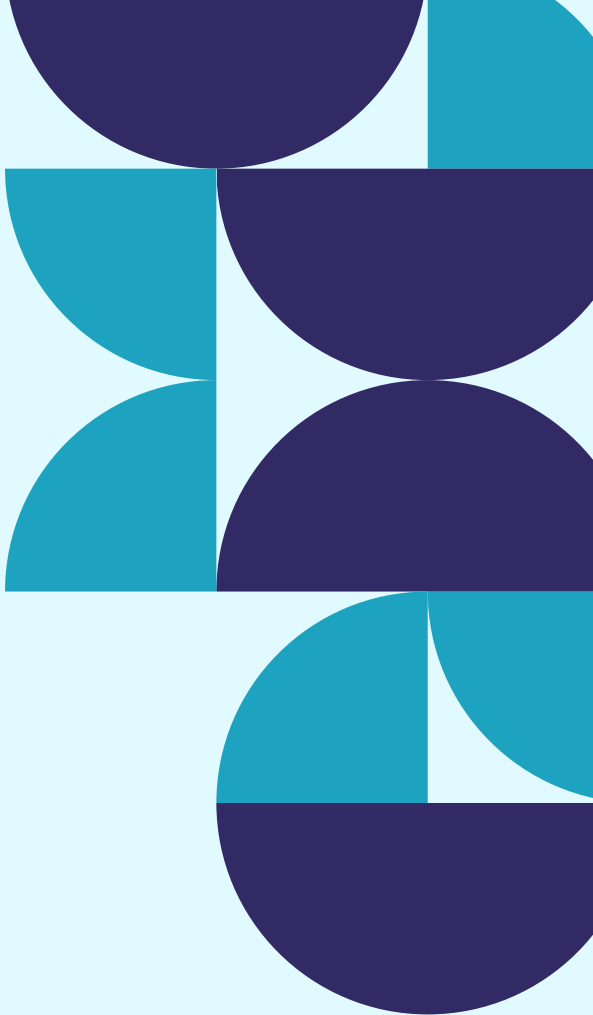
- Underperforming Products:

Large furniture items showed high sales but often resulted in low or negative profits, indicating potential for cost optimization or pricing review.



# CONCLUSION

The Superstore Sales Analysis Project successfully highlighted critical areas for improvement and provided valuable insights into sales performance, customer behavior, and profitability. By implementing the recommended strategies, the superstore can enhance overall business performance, boost profitability, and better cater to customer needs.



# RECOMMENDATION

- Re-evaluate pricing strategies for low-margin products, especially in the "Furniture" category, to improve profitability.
- Focus marketing efforts on high-performing regions like the "West" and "East," while exploring strategies to boost sales in underperforming regions such as the "South."
- Develop tailored strategies for the "Corporate" segment to capitalize on its high profitability, such as exclusive offers or loyalty programs.
- Apply moderate discounts selectively to maintain sales volume while protecting profit margins, especially in high-margin categories like "Technology."

# CONTACT

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**THANK  
YOU**

