Title: Walmart Sales Insights Using SQL Subqueries

Walmart

Retail Industry

Subtitle: 👩‍💻Shivangi | Aspiring Data Analyst

Tools💻used: MySQL, Canva

Project Type: Real-world Business case Study📊

Duration- 1 Day, Weekend Project (July 2025)

“Exploring hidden sales trends through the power of SQL subqueries.”

Purpose of the project

- To apply SQL subqueries on real-world retails data (Walmart sales)
- To gain insights from complex sales patterns and behavior
- To build query-solving confidence for interviews and job-ready skill
- To practice breaking down large problems into smaller subqueries
- To showcase this analysis as a portfolio project on LinkedIn & GitHub

Walmart

“From row sales data to real insights using only the power of SQL”

Title: Walmart Sales Dataset Summary

Dataset Name: Walmart Sales Data

Total Records: 1000 + rows

Number of columns: 17 columns

Key Columns:

- Branch
- City
- Customer_type
- Product_line
- Unit_price
- Quantity
- Total
- Date
- Time
- Payment
- Rating etc.

Evolution of Retail

A Timeline of Transformation

Title: Real-world Business questions

1- Find the branch with the highest total sales
2- Which product line generated the highest revenue
3- Show cities with total sales greater than sales of all cities
4- Which payment method was used the most
5- List all invoice IDs where the customer spent more than the average spending.
6- Which date had the highest total sales?
7- Find the product line with the least total sales
8- Show all male customers who used credit card and whose total is more than average male customer total.

What's Reshaping Retail Today

Q.1: Find the branch with the highest total sales.

```sql
SELECT Branch, SUM(Total) AS total_sales
FROM walmart_sales
Group by Branch
HAVING SUM(Total) = (SELECT MAX(branch_sales)
FROM (SELECT SUM(Total) AS branch_sales
FROM walmart_sales
Group by Branch) AS sub );
```

Result Grid | Filter Rows:

Branch	total_sales
C	110568.70649999994

Used Subquery / Aggregate Function: AVG() with GROUP BY

Q.2-Which product line generated the highest revenue?

```
SELECT 'Product line', SUM(Total) AS revenue FROM walmart_sales
Group by 'Product line'
HAVING SUM(Total) = (SELECT MAX(revenue) FROM (
SELECT 'Product line', SUM(Total) AS revenue FROM walmart_sales
Group by 'Product line') AS sub);
```

Result Grid | Filter Rows:

	Product line	revenue
▶	Product line	322966.74900000007

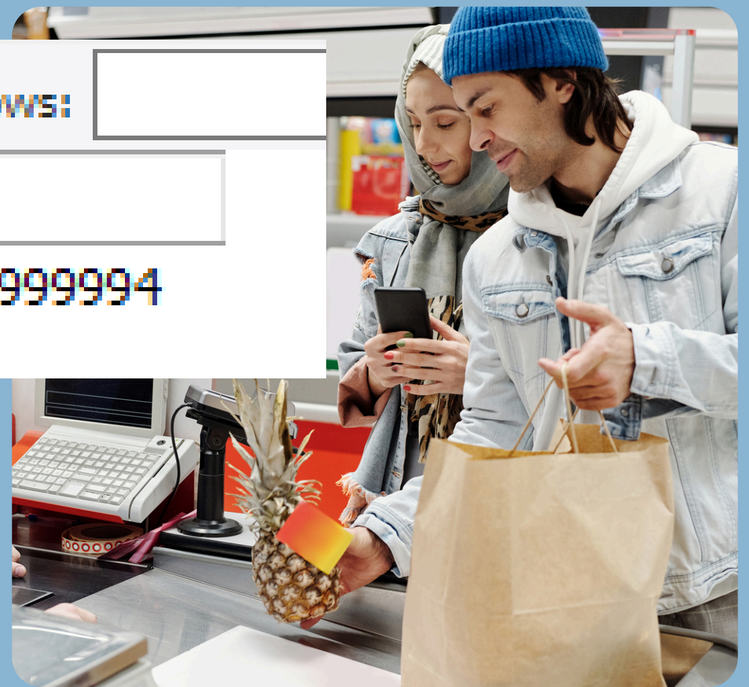
Consumer Behavior Shift

Q.3- Show cities with total sales greater than sales of all cities.

```
SELECT city, Sum(Total) AS city_sales From walmart_sales
Group by City
HAVING SUM(Total) > (SELECT AVG(city_sales) FROM
 (SELECT city, Sum(Total) AS city_sales From walmart_sales
Group by City) AS sub);
```

Result Grid | Filter Rows:

	city	city_sales
▶	Naypyitaw	110568.70649999994



Technology in Retail

Q.4- Which Payment method was used the most?

```sql
SELECT Payment, COUNT(*) AS pay_count
From walmart_sales
Group by Payment
HAVING COUNT(*) = (SELECT MAX(pay_count) From (
SELECT Payment, COUNT(*) AS pay_count
From walmart_sales
Group by Payment) AS sub);
```

Result Grid | Filter Rows:

Payment	pay_count
Ewallet	345

Q.5- List all invoice IDs where the customer spent more than the average spending.

```
SELECT 'Invoice Id', Total
FROM walmart_sales
WHERE Total > (SELECT
              AVG(Total) FROM walmart_sales);
```

Result Grid | Filter Rows:

	Invoice Id	Total
▶	Invoice Id	548.9715
	Invoice Id	340.5255
	Invoice Id	489.048
	Invoice Id	634.3785
	Invoice Id	627.6165
	Invoice Id	433.692
	Invoice Id	772.38
	Invoice Id	453.495
	Invoice Id	749.49
	Invoice Id	590.436
	Invoice Id	506.6355

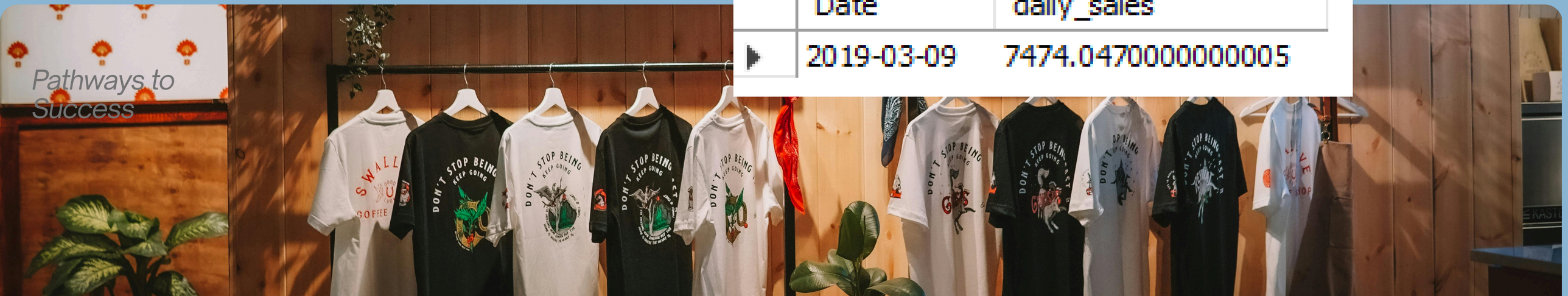
Preparing for What's Ahead

Q.6- Which date had the highest total sales?

```sql
SELECT Date, SUM(Total) AS daily_sales
From walmart_sales
Group by Date
HAVING SUM(Total) = (SELECT MAX(daily_sales)
FROM (SELECT Date, SUM(Total) AS daily_sales
From walmart_sales
Group by Date) AS sub);
```

Result Grid | Filter Rows:

Date	daily_sales
2019-03-09	7474.047000000005



Q.7- Find the product line with the least total sales.

```sql
SELECT 'product line', SUM(Total) AS total_sales
FROM walmart_sales
Group by 'product line'
HAVING SUM(total) = (SELECT MIN(total_sales) FROM (
SELECT 'product line', SUM(Total) AS total_sales
FROM walmart_sales
Group by 'product line') AS sub);
```

Result Grid | Filter Rows:

	product line	total_sales
▶	product line	322966.74900000007

Q.8- Show all male customers who used Credit card and whose total is more than average male customer total.

```sql
SELECT Gender, Payment AS Payment_type, Total AS avg_total FROM walmart_sales
Where gender = 'male' AND Payment = 'Credit card'
AND Total > (SELECT AVG (Total) AS avg_total From walmart_sales
Where gender = 'Male');
```

Result Grid | Filter Rows:

Gender	Payment_type	avg_total
Male	Credit card	340.5255
Male	Credit card	457.443
Male	Credit card	494.1825
Male	Credit card	535.7205
Male	Credit card	939.54
Male	Credit card	463.428
Male	Credit card	362.943
Male	Credit card	608.202
Male	Credit card	419.832
Male	Credit card	944.622
Male	Credit card	536.844
Male	Credit card	550.935

“Conclusion & Learning”

What I Learned:-

- Practiced writing nested and correlated subqueries
- Improved logical thinking and query structuring
- Understood real-world data analysis using SQL
- Built confidence in using SQL for business insightd

This Walmart Sales Project was more than just writing SQL queries-
it was a journey of breaking my own limits, learning something new, and facing every error with courage💪.

Thank You !