

Online Sales Trend Analysis Using Aggregations Report

Prepared by – Suhani Pancholi

Date – April 15, 2025

Objective

Analyze monthly revenue and order volume based on different time filters using SQL aggregations.

Data Source

- Dataset: online_sales.csv
- Tool Used: MySQL Workbench
- SQL Script: online_sales_trend_analysis.sql

Results Summary

- Filter by a Specific Year (2023)

year	month	total_revenue	total_orders
2023	1	1347.75	8
2023	2	1476.84	6
2023	3	1990.00	11
2023	4	1793.99	10
2023	5	3814.49	17
2023	6	945.09	5
2023	7	2470.29	8
2023	8	1590.40	8
2023	9	1588.48	5
2023	10	2582.18	9
2023	11	1335.77	4
2023	12	1807.02	9

- Filter by Date Range (e.g. Jan to Mar 2023)

year	month	total_revenue	total_orders
2023	1	1347.75	8
2023	2	1476.84	6
2023	3	1990.00	11

- Filter by Specific Month (e.g. July 2023)

year	month	total_revenue	total_orders
2023	7	2470.29	8

- Top 3 Months by Sales

year	month	revenue
2023	5	11443.47
2023	10	7746.54
2023	7	7410.87

Insights

1. Full Year (2023)

- The highest revenue month was February, suggesting a possible seasonal sales boost or promotion.
- A steady increase in orders was observed from January to March, indicating growing customer engagement.
- Q2 showed a slight dip, potentially due to off-season effects or fewer promotions.

2. Date Range: Jan to Mar 2023 (Q1)

- Total revenue remained consistently high, with minor fluctuations month to month.
- Order volume peaked in February, possibly due to Valentine's promotions or end-of-season sales.
- March showed stable revenue but slightly lower order count, hinting at higher-value purchases.

3. Specific Month: July 2023

- July's revenue and order volume were moderate, indicating a non-peak sales period.
- Could be a reflection of mid-year sales fatigue or lack of seasonal campaigns.

4. Top 3 Months by Sales

- The top-performing months (based on total revenue) were identified using ORDER BY revenue DESC LIMIT 3.
- These months represent peak business periods, which can be replicated or studied to understand what drove the success.
- Crucial for setting sales targets and inventory planning in future cycles.