

Elevate Internship — Task 6: Sales Trend Analysis Using Aggregations

This document contains the complete submission for Elevate Internship — Task 6. The task performs Sales Trend Analysis using SQL aggregations to compute monthly revenue and monthly order volume, along with identifying top-performing months.

1. Objective

Analyze sales performance trends by grouping orders by month and year using SQL.

2. SQL Query (PostgreSQL / MySQL)

```
SELECT EXTRACT(YEAR FROM order_date) AS year, EXTRACT(MONTH FROM order_date) AS month, SUM(amount) AS monthly_revenue, COUNT(DISTINCT order_id) AS monthly_order_volume FROM orders GROUP BY 1,2 ORDER BY 1,2;
```

3. SQL Query (SQLite)

```
SELECT CAST(strftime('%Y', order_date) AS INTEGER) AS year, CAST(strftime('%m', order_date) AS INTEGER) AS month, SUM(amount) AS monthly_revenue, COUNT(DISTINCT order_id) AS monthly_order_volume FROM orders GROUP BY year, month ORDER BY year, month;
```

4. Top 3 Months by Revenue

```
WITH monthly AS ( SELECT EXTRACT(YEAR FROM order_date) AS year, EXTRACT(MONTH FROM order_date) AS month, SUM(amount) AS monthly_revenue FROM orders GROUP BY 1,2 )  
SELECT * FROM monthly ORDER BY monthly_revenue DESC LIMIT 3;
```

5. Notes

- Use COUNT(DISTINCT order_id) to ensure unique order counts.
- SUM(amount) calculates total revenue per month.
- ORDER BY helps sort months chronologically or by revenue.

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