

## TASK 6: Sales Trend Analysis Using Aggregations

**Dataset:** Online Sales – Popular Marketplace

**Tool Used:** MySQL 8.0

**Objective:** Analyze monthly revenue and order volume.

### Code:

```
use as1;
```

```
CREATE TABLE orders (  
  order_id      VARCHAR(50),  
  order_date    DATE,  
  product_category VARCHAR(100),  
  product_id    VARCHAR(50),  
  units_sold    INT,  
  unit_price    DECIMAL(10,2),  
  amount        DECIMAL(10,2),  
  region        VARCHAR(100),  
  payment_mode  VARCHAR(50)  
);
```

```
LOAD DATA INFILE "C:\\ProgramData\\MySQL\\MySQL Server 8.0\\Uploads\\Online  
Sales Data.csv"
```

```
-> INTO TABLE orders  
-> FIELDS TERMINATED BY ','  
-> ENCLOSED BY '"'  
-> LINES TERMINATED BY '\n'  
-> IGNORE 1 LINES  
-> (order_id, @order_date, product_category, product_id,  
-> units_sold, unit_price, amount, region, payment_mode)  
-> SET order_date = STR_TO_DATE(@order_date, '%d-%m-%Y');
```

```
ALTER TABLE orders
```

```
-> MODIFY COLUMN product_id VARCHAR(100);
```

```
LOAD DATA INFILE"C:\\ProgramData\\MySQL\\MySQL Server 8.0\\Uploads\\Online  
Sales Data.csv"
```

```
-> INTO TABLE orders
```

```
-> FIELDS TERMINATED BY ','
```

```
-> ENCLOSED BY ''''
```

```
-> LINES TERMINATED BY '\n'
```

```
-> IGNORE 1 LINES
```

```
-> (order_id, @order_date, product_category, product_id,
```

```
-> units_sold, unit_price, amount, region, payment_mode)
```

```
-> SET order_date = STR_TO_DATE(@order_date, '%d-%m-%Y');
```

```
Query OK, 240 rows affected (0.01 sec)
```

```
SELECT COUNT(*) AS total_rows,
```

```
-> MIN(order_date) AS first_date,
```

```
-> MAX(order_date) AS last_date
```

```
-> FROM orders;
```

total_rows	first_date	last_date
240	2024-01-01	2024-08-27

SELECT

- > EXTRACT(YEAR FROM order\_date) AS year,
- > EXTRACT(MONTH FROM order\_date) AS month,
- > SUM(amount) AS total\_revenue,
- > COUNT(DISTINCT order\_id) AS order\_volume
- > FROM orders
- > WHERE order\_date BETWEEN '2024-01-01' AND '2024-08-27'
- > GROUP BY year, month
- > ORDER BY year, month;

year	month	total_revenue	order_volume
2024	1	14548.32	31
2024	2	10803.37	29
2024	3	12849.24	31
2024	4	12451.69	30
2024	5	8455.49	31
2024	6	7384.55	30
2024	7	6797.08	31
2024	8	7278.11	27

## Insights & Conclusion: Monthly Sales Trend Analysis

From the analysis of sales data for the year 2024:

- **January** recorded the **highest revenue** of ₹14,548.32 with 31 distinct orders.
- Revenue showed a **declining trend** from January to August, with **August** having the **lowest revenue** at ₹7,278.11 and the fewest orders (27).
- **Order volume remained relatively stable**, mostly around 30–31 monthly orders, indicating consistent customer engagement.
- The overall trend suggests a **gradual decline in sales performance**, which may be due to seasonal variation, product demand shifts, or marketing impact.