**Problem Statement & Objective**

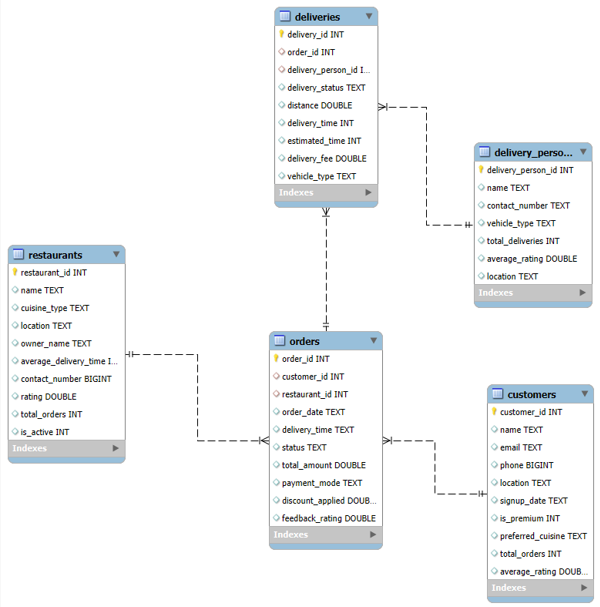
Zomato operates in a competitive food delivery market where **sales growth depends on customer satisfaction, delivery speed, and restaurant performance**. The company needs to identify which factors most influence sales, improve operational efficiency, and understand customer behaviour to stay ahead.

The objective of this project is to use **SQL-based data analysis** on Zomato’s datasets — covering customers, orders, restaurants, and deliveries — to:

1. Measure key KPIs like delivery efficiency, restaurant performance, and customer loyalty.
2. Identify trends and problem areas affecting revenue.
3. Provide **actionable insights** to improve service quality, optimize marketing, and increase sales.

This analysis aims to guide **data-driven decisions** that enhance customer experience and strengthen Zomato’s market position.

**EER DIAGRAM**

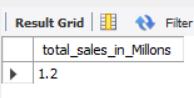
****

**1. Total Sales Revenue**

SELECT ROUND(SUM(total\_amount)/1000000, 2) AS total\_sales\_in\_Millons

FROM orders

WHERE status = 'Delivered';



**Insight:** This KPI shows the total revenue from all delivered orders. A healthy upward trend means strong sales performance.  
**Recommendation:** Use this as your **primary sales target metric**. If growth slows, introduce **seasonal discounts or influencer marketing** to boost demand

**2. Monthly Sales Trend**

SELECT DATE\_FORMAT(STR\_TO\_DATE(order\_date, '%d-%m-%Y %H:%i'), '%Y-%m') AS month,

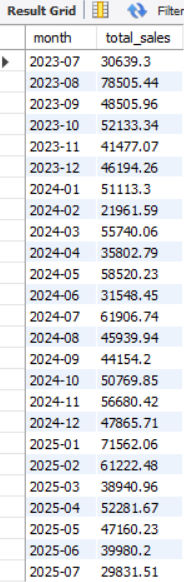
ROUND(SUM(total\_amount), 2) AS total\_sales

FROM orders

WHERE status = 'Delivered'

GROUP BY month

ORDER BY month;



**Insight:** Monthly data reveals sales peaks (e.g., festive seasons) and slow months.  
**Recommendation:** For low-sales months, plan **special campaigns**, tie-ups with brands, or introduce **limited-time offers** to stimulate demand.

**3. Top 10 Restaurants by Sales**

SELECT r.name, ROUND(SUM(o.total\_amount), 2) AS total\_sales

FROM orders o

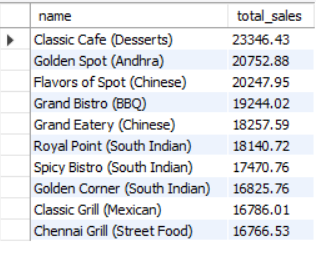
JOIN restaurants r ON o.restaurant\_id = r.restaurant\_id

WHERE o.status = 'Delivered'

GROUP BY r.name

ORDER BY total\_sales DESC

LIMIT 10;



**Insight:** These restaurants are your **highest revenue drivers**.  
**Recommendation:** Strengthen partnerships — offer them **priority delivery slots**, **exclusive banners on the app**, and **premium placement** in search results.

**4. Top Selling Cuisine Types**

SELECT r.cuisine\_type, COUNT(o.order\_id) AS total\_orders, ROUND(SUM(o.total\_amount), 2) AS total\_sales

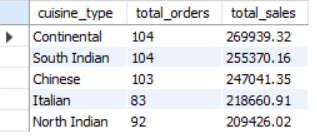
FROM orders o

JOIN restaurants r ON o.restaurant\_id = r.restaurant\_id

WHERE o.status = 'Delivered'

GROUP BY r.cuisine\_type

ORDER BY total\_sales DESC;



**Insight:** Popular cuisines have high demand and can drive repeat orders.  
**Recommendation:** Encourage restaurants of top cuisines to **bundle meals**, **add combo offers**, or **cross-promote with beverages/desserts**.

**5.Repeat Customer Rate**

SELECT ROUND(

COUNT(DISTINCT customer\_id) / (SELECT COUNT(\*) FROM customers) \* 100, 2

) AS repeat\_customer\_percentage

FROM orders

WHERE customer\_id IN (

SELECT customer\_id FROM orders GROUP BY customer\_id HAVING COUNT(order\_id) > 1

**);**

****

**Insight:** Loyal customers are more profitable than new customers.  
**Recommendation:** Introduce loyalty points, personalized offers, and birthday discounts to maintain and grow this rate.

**6. Average Order Value (AOV)**

SELECT ROUND(AVG(total\_amount), 2) AS average\_order\_value

FROM orders

WHERE status = 'Delivered';

****

**Insight:** Higher AOV means customers spend more per order.  
**Recommendation:** Promote add-ons like drinks/desserts, suggest family packs, and use AI-based recommendations during checkout.

**7. Customer Lifetime Value (CLV)**

SELECT c.customer\_id, c.name, ROUND(SUM(o.total\_amount), 2) AS lifetime\_value

FROM customers c

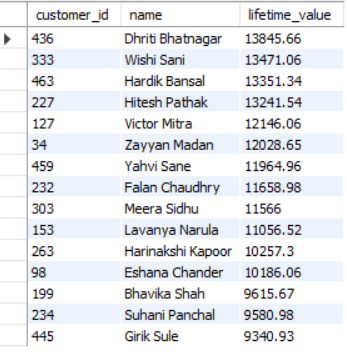
JOIN orders o ON c.customer\_id = o.customer\_id

WHERE o.status = 'Delivered'

GROUP BY c.customer\_id, c.name

ORDER BY lifetime\_value DESC

LIMIT 15;



**Insight:** High CLV customers contribute disproportionately to revenue.  
**Recommendation:** Create a **VIP program** with perks like free delivery, early access to discounts, or dedicated support.

**8. Delivery Speed Impact on Ratings**

SELECT delivery\_status,

ROUND(AVG(feedback\_rating), 2) AS avg\_rating

FROM (

SELECT

CASE

WHEN d.delivery\_time <= d.estimated\_time THEN 'On Time'

ELSE 'Late'

END AS delivery\_status,

o.feedback\_rating

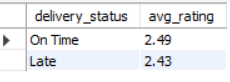
FROM deliveries d

JOIN orders o

ON d.order\_id = o.order\_id

) AS sub

GROUP BY delivery\_status;



**Insight:** Faster deliveries lead to better ratings → better customer retention.  
**Recommendation:** Invest in **optimizing delivery routes**, incentivize **on-time delivery**, and **expand rider fleet** in high-demand zones.

**9. Restaurants with Low Ratings but High Orders**

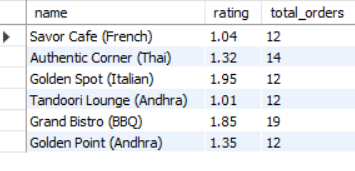
SELECT r.name, r.rating, COUNT(o.order\_id) AS total\_orders

FROM restaurants r

JOIN orders o ON r.restaurant\_id = o.restaurant\_id

GROUP BY r.name, r.rating

HAVING r.rating < 2 AND total\_orders >11;



**Insight:** These are **high-demand but quality-risk restaurants**.  
**Recommendation:** Work with them to **improve food quality**, **reduce delays**, and **address customer complaints** before customers churn.

**10. Most Profitable Payment Method**

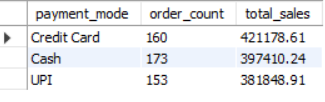
SELECT payment\_mode, COUNT(\*) AS order\_count, ROUND(SUM(total\_amount), 2) AS total\_sales

FROM orders

WHERE status = 'Delivered'

GROUP BY payment\_mode

ORDER BY total\_sales DESC;



**Insight:** Some payment modes may have lower transaction fees and higher conversion rates.  
**Recommendation:** Promote low-cost/high-convenience payment modes with **cashback offers** to reduce payment gateway costs and boost sales.

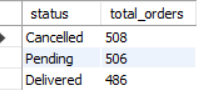
**11. Cancellation Reasons Analysis**

SELECT status, COUNT(\*) AS total\_orders

FROM orders

GROUP BY status

ORDER BY total\_orders DESC;



**Insight:** High cancellations cause revenue loss and poor customer experience.  
**Recommendation:** Identify **frequent causes** (long delivery time, item unavailable) and **automate early order status alerts** to customers.

**12. Average Delivery Distance**

SELECT ROUND(AVG(distance), 2) AS avg\_distance\_km

FROM deliveries

WHERE delivery\_status = 'Delivered';



**Insight:** Longer distances increase delivery costs and delay times.  
**Recommendation:** Encourage **hyperlocal deliveries** by showing nearby restaurants first and limiting delivery zones in traffic-heavy areas.

**13. Top Delivery Persons by Revenue Generated**

SELECT dp.name, round(SUM(o.total\_amount) ,2)AS total\_revenue

FROM deliveries d

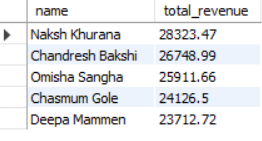
JOIN delivery\_persons dp ON d.delivery\_person\_id = dp.delivery\_person\_id

JOIN orders o ON d.order\_id = o.order\_id

GROUP BY dp.name

ORDER BY total\_revenue DESC

LIMIT 5;



**Insight:** High-performing riders contribute directly to sales volume and customer satisfaction.  
**Recommendation:** Reward top riders with **bonuses**, **priority shifts**, and **public recognition** to retain talent

**14. Time of Day with Most Orders(TOP 12 HOURS)**

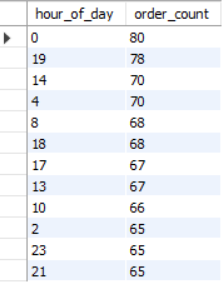
SELECT HOUR(STR\_TO\_DATE(order\_date, '%d-%m-%Y %H:%i')) AS hour\_of\_day,

COUNT(\*) AS order\_count

FROM orders

GROUP BY hour\_of\_day

ORDER BY order\_count DESC;



**Insight:** Peak order times are usually lunch (12–3 PM) and dinner (7–10 PM).  
**Recommendation:** Run **time-specific flash sales**, boost **rider availability** in those hours, and ensure **restaurant readiness**.

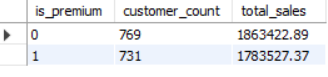
**15. Premium vs Non-Premium Customer Revenue**

SELECT is\_premium, COUNT(\*) AS customer\_count, ROUND(SUM(o.total\_amount), 2) AS total\_sales

FROM customers c

JOIN orders o ON c.customer\_id = o.customer\_id

GROUP BY is\_premium;



**Insight:** Premium customers generally spend more and order more often.  
**Recommendation:** Promote **premium memberships** aggressively via **free trials**, highlighting benefits like free delivery and exclusive discounts

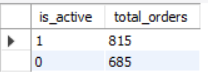
**16. Orders per Active vs Inactive Restaurant**

SELECT is\_active, COUNT(o.order\_id) AS total\_orders

FROM restaurants r

JOIN orders o ON r.restaurant\_id = o.restaurant\_id

GROUP BY is\_active;



**Insight:** Many inactive restaurants mean lost potential revenue.  
**Recommendation:** Run a **restaurant reactivation campaign** — waive commission for first month, offer marketing support, or simplify onboarding.

**17. Feedback Ratings by Cuisine Type**

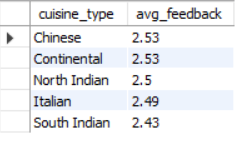
SELECT r.cuisine\_type, ROUND(AVG(o.feedback\_rating), 2) AS avg\_feedback

FROM orders o

JOIN restaurants r ON o.restaurant\_id = r.restaurant\_id

GROUP BY r.cuisine\_type

ORDER BY avg\_feedback DESC;



**Insight:** High-rated cuisines can be marketed as “most loved”.  
**Recommendation:** Highlight them on **app banners**, **seasonal promotions**, and use as **USP in ad campaigns**

**18. Delivery Time Efficiency vs Sales**

SELECT

r.name AS restaurant\_name,

ROUND(AVG(d.delivery\_time), 2) AS avg\_delivery\_time,

ROUND(SUM(o.total\_amount), 2) AS total\_sales

FROM deliveries d

JOIN orders o ON d.order\_id = o.order\_id

JOIN restaurants r ON o.restaurant\_id = r.restaurant\_id

WHERE o.status = 'Delivered'

GROUP BY r.name

ORDER BY total\_sales DESC

LIMIT 20;



**Insight:** Restaurants with lower average delivery times tend to generate higher total sales, indicating that speed plays a key role in customer satisfaction and repeat orders

**Recommendation:** Work with slow-performing restaurants to optimize food preparation and dispatch processes.