

PRESENTED BY:  
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# ZOMATO

# SQL INSIGHTS

 Optimizing Delivery Operations & Restaurant Partnerships

Start Presentation





# Introduction

This project is a database management and analytics system inspired by Zomato, one of India's leading online food delivery platforms.

•The primary objective is to:

- Design a relational database that stores customers, restaurants, orders, riders, and deliveries.
- Perform SQL queries to analyze customer behavior, restaurant performance, delivery efficiency, and revenue trends.
- Gain insights into how real-world food delivery businesses manage and analyze large datasets.



Analyzing customer, restaurant, and delivery data for actionable insights.





# Problem Statement

With the rapid growth of online food delivery platforms in India, managing huge volumes of data related to customers, restaurants, orders, riders, and deliveries has become a critical challenge.

## ! Key Challenges Identified

- Lack of a structured database to handle customer and restaurant information efficiently.
- Difficulty in analyzing customer spending patterns and restaurant performance.

## ! Key Challenges Identified

- Tracking delivery success rates and rider performance is complex.
- Absence of insights to support data-driven decision-making for business growth.

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# About The Data

The dataset used in this project is synthetically generated to resemble real-world scenarios. It consists of 50 entries in each table to ensure enough diversity for analysis.



- **Customers Table** → Stores 50 customer records with names, IDs, and registration dates.
- **Restaurants Table** → 50 restaurants from different Indian cities (Delhi, Mumbai, Hyderabad, Chennai, etc.), including local cuisines.



- **Riders Table** → 50 delivery riders with unique IDs and sign-up details.
- **Orders Table** → 50 orders, linking customers and restaurants, with order items, amount, status, and timestamps.
- **Deliveries Table** → 50 delivery records showing delivery status, rider assigned, and completion time.

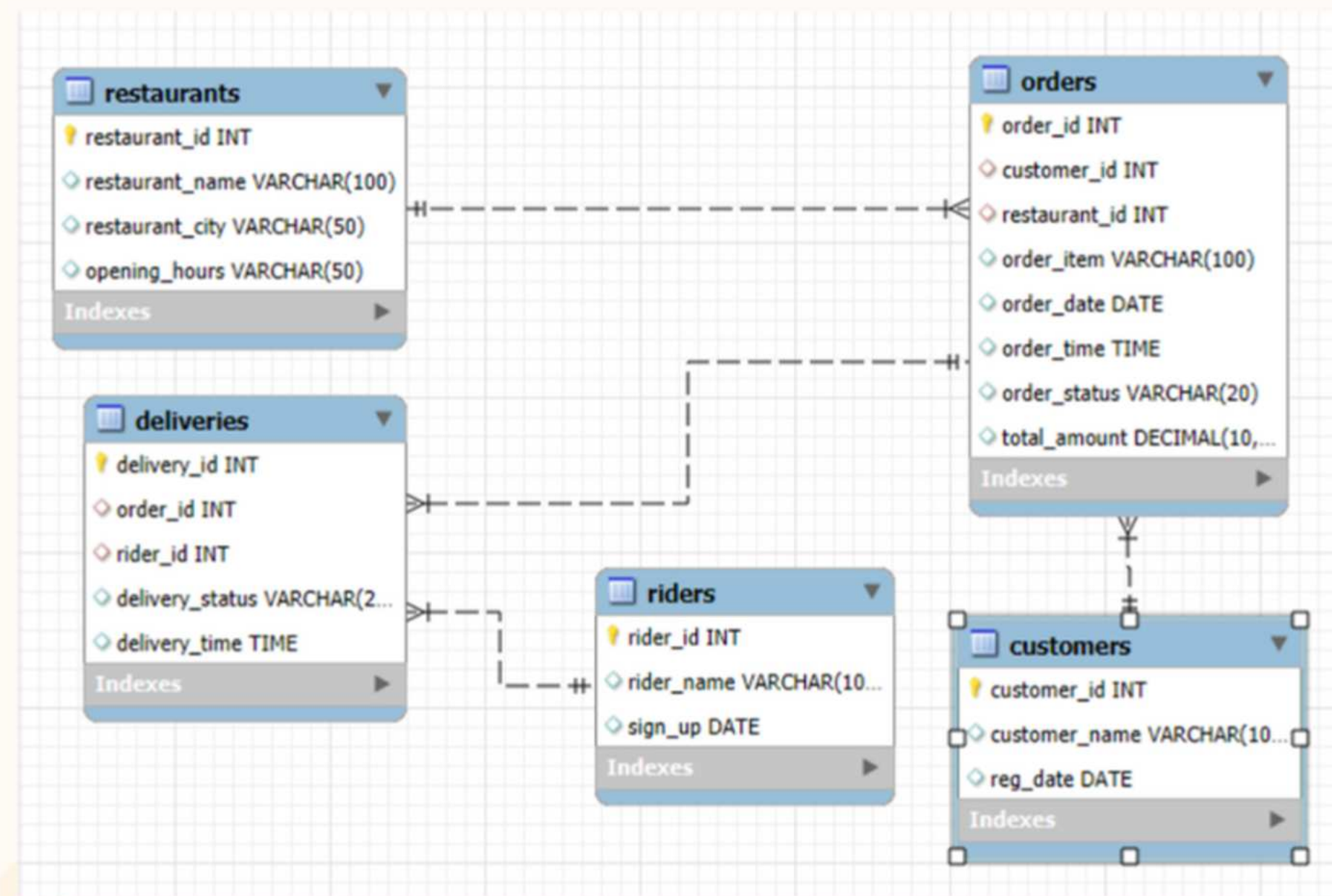
The dataset covers all essential aspects of a food delivery ecosystem, allowing comprehensive analysis.





# Entity Relationship Diagram

- ✓ The ERD represents relationships between Customers, Orders, Deliveries, Restaurants, and Riders.





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## Query 1: Top 5 Customers by Spending

- **Objective:** To identify the customers who generate the most revenue for the platform.

```
• SELECT c.customer_id, c.customer_name, SUM(o.total_amount) AS total_spent
  FROM customers c
 JOIN orders o ON c.customer_id = o.customer_id
 GROUP BY c.customer_id, c.customer_name
 ORDER BY total_spent DESC;
```

	customer_id	customer_name	total_spent
▶	18	Meera Kapoor	600.00
	12	Kavita Desai	450.00
	37	Mohit Arora	420.00
	10	Sneha Patil	400.00
	41	Akhil Dube	400.00

- **Insight:** These customers are the most valuable users of the app. They can be targeted for loyalty programs, premium offers, or special discounts to retain them.



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## Query 2: Most Popular Restaurant (by Orders)

- **Objective:** To find out which restaurant receives the highest number of orders.

```
• SELECT r.restaurant_name, COUNT(o.order_id) AS total_orders
  FROM restaurants r
 JOIN orders o ON r.restaurant_id = o.restaurant_id
 GROUP BY r.restaurant_name
 ORDER BY total_orders DESC
 LIMIT 1;
```

- **Insight:** The restaurant identified here is the most preferred choice among customers. Zomato can showcase it in promotions, collaborations, or highlight it in the "Top

	restaurant_name	total_orders
▶	Biryani House	1





## Query 3: Most Ordered Food Item

- **Objective:** To analyze customer preferences by finding the food item ordered the most.

```
SELECT order_item, COUNT(order_id) AS order_count
FROM orders
GROUP BY order_item
ORDER BY order_count DESC
LIMIT 1;
```

- **Insight:** The result shows the trending dish. Knowing this helps restaurants plan their menu, and Zomato can use it in seasonal marketing campaigns.

	order_item	order_count
▶	Chicken Biryani	1





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## Query 4: Delivery Success Rate (%)

- **Objective:** To measure the percentage of successful deliveries made.

```
• SELECT  
  (SUM(CASE WHEN delivery_status = 'Delivered' THEN 1 ELSE 0 END) * 100.0) / COUNT(*) AS success_rate  
FROM deliveries;
```

	success_rate
▶	98.00000

- **Insight:** A high success rate indicates efficient delivery operations, while a lower rate highlights areas for improvement such as rider training, traffic management, or app optimizations.





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## Query 5: Top 3 Cities by Revenue

- **Objective:** To identify the cities that generate the highest overall revenue.

```
• SELECT r.restaurant_city, SUM(o.total_amount) AS total_revenue
  FROM restaurants r
 JOIN orders o ON r.restaurant_id = o.restaurant_id
 GROUP BY r.restaurant_city
 ORDER BY total_revenue DESC
 LIMIT 3;
```

	restaurant_city	total_revenue
▶	Delhi	2530.00
	Mumbai	1740.00
	Hyderabad	1520.00

- **Insight:** These cities are key markets for Zomato. The company should focus its marketing, offers, and expansion plans more in these areas to maximize profits.





## Query 6: Daily Revenue Trend

- **Objective:** To track how revenue is distributed across different days.

```
● SELECT order_date, SUM(total_amount) AS daily_revenue
FROM orders
GROUP BY order_date
ORDER BY order_date;
```

	order_date	daily_revenue
▶	2023-06-01	320.00
	2023-06-02	250.00
	2023-06-03	300.00
	2023-06-04	180.00
	2023-06-05	350.00
	2023-06-06	200.00
	2023-06-07	320.00
	2023-06-08	220.00
	2023-06-09	280.00
	2023-06-10	400.00

- **Insight:** This shows daily performance trends – helping identify peak days (like weekends or festivals) and low-sales days. Zomato can then adjust promotions accordingly (e.g., run discounts on





# Conclusion

01

The project successfully demonstrates how SQL can be used to design, populate, and analyze a food delivery database.

02

Queries provided insights into:

- Top-spending customers
- Most popular restaurants & dishes
- Delivery success rate
- Revenue trends across cities and days







## Future Scope

- ✓ Expanding dataset size to thousands of records for big data analysis.
- ✓ Integrating with visualization tools (Power BI, Tableau, Python) for better insights.
- ✓ Adding more features like restaurant ratings, customer feedback, payment methods, promotional discounts for deeper analysis.
- ✓ Building a front-end UI that connects with the SQL database to simulate a real-world Zomato-like system.

# Thank You For Your Attention

This project showcases how SQL insights can improve delivery operations, restaurant performance, and customer satisfaction.

Conclusion



Future Scope

