

PRESENTED BY:
ANURAG KOKATE



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.

Anurag Kokate



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.

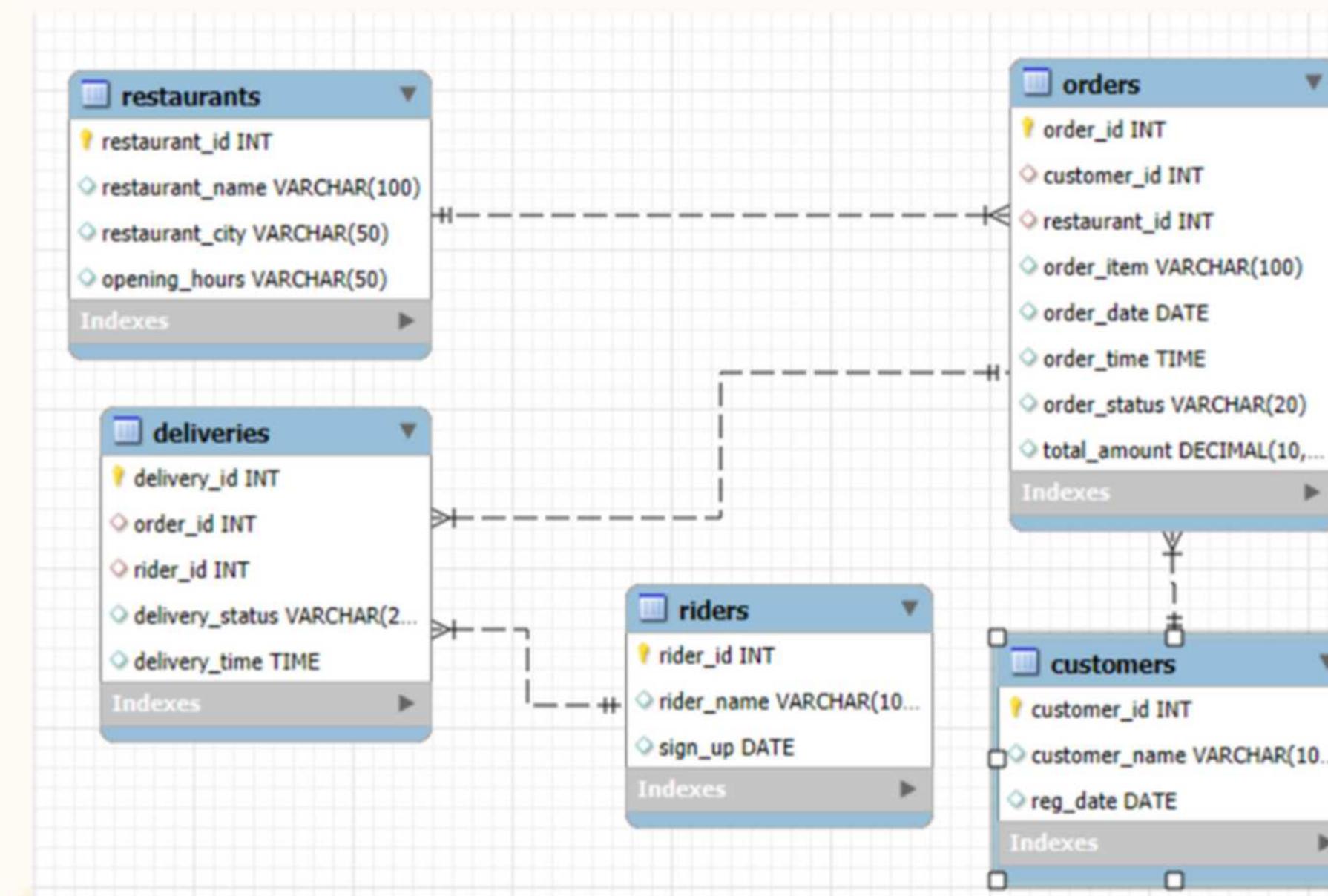
- **Customers Table** → Stores 50 customer records with names, IDs, and registration dates.
- **Restaurants Table** → 50 restaurants from different Indian cities (Delhi, Mumbai, Hyderabad, Chennai, etc.), including local cuisines.
- **Riders Table** → 50 delivery riders with unique IDs and sign-up details.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





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.





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;
```

| restaurant_name | total_orders |
|-----------------|--------------|
| Biryani House   | 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



## 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           |





## 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.





## 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

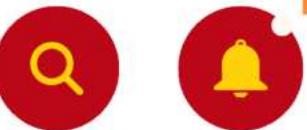




Future Scope

- ✓ 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

