



Online Food Delivery

India's leading platform for ordering food from nearby restaurants.

Explore More!



ABOUT THE PROJECT

This project is a SQL-based case study inspired by Swiggy's food-delivery system. Its goal is to demonstrate how customers, restaurants, orders, ratings, and delivery partners can be modelled and analysed using a relational database (MySQL).

Key Facts About the Project



City-Wise Results



Restaurant Ratings



Order Insights



Partner Performance



SQL Tasks Completed



We have done the following SQL-based analysis:

- ✓ Retrieved all customers living in Delhi
- ✓ Calculated the average rating of restaurants in Mumbai
- ✓ Identified customers who have placed at least one order
- ✓ Counted total orders placed by each customer
- ✓ Computed total revenue generated by each restaurant
- ✓ Found the top 5 restaurants with the highest average rating
- ✓ Listed customers who have never placed an order
- ✓ Calculated number of orders placed by each customer in Mumbai
- ✓ Displayed all orders from the last 30 days
- ✓ Identified delivery partners who completed more than one delivery
- ✓ Found customers who placed orders on exactly three different days
- ✓ Identified the delivery partner who worked with the most customers
- ✓ Matched customers from the same city who ordered from the same restaurants on different dates

Display all customers who live in 'Delhi'.

SYNTAX

```
SELECT  
    customer_id, name, city  
FROM  
    customers  
WHERE  
    city = 'delhi';
```

Insight

Customers from Delhi

This query shows the list of customers who live in Delhi.
Based on the result:

- ✓ Delhi has 3 active customers in the dataset
- ✓ The customers are:
 - Rohini Verma
 - Manish Kumar
 - Sonali Mishra

This helps us understand the customer distribution by city.



	customer_id	name	city
▶	2	Rohini Verma	Delhi
	5	Manish Kumar	Delhi
	18	Sonali Mishra	Delhi
✳	NULL	NULL	NULL



Find the average rating of all restaurants in 'Mumbai'.

SYNTAX

SELECT

city, **AVG(rating)**

FROM

restaurants

WHERE

city = 'mumbai'

GROUP BY **city**;

Insight

Average Rating of Mumbai Restaurants

The result shows that restaurants in Mumbai have an average rating of 4.3.

- ✓ Indicates that Mumbai restaurants maintain good service quality
- ✓ Suggests customers generally have a positive experience
- ✓ Shows that the food delivery quality in Mumbai is above average



	city	AVG(rating)
▶	Mumbai	4.300000



List all customers who have placed at least one order.

SYNTAX

```
SELECT
    customers.customer_id, customers.name
FROM
    orders
    JOIN
        customers ON orders.customer_id = customers.customer_id
GROUP BY customers.customer_id
HAVING COUNT(orders.order_id) >= 1;
```

Insight

Active Customers on the Platform

This query helps us identify customers who have actually used the platform by placing at least one order.

- ✓ A total of 9 customers are active users
- ✓ These customers have engaged with the Swiggy system at least once
- ✓ This insight helps differentiate active users from inactive or registered-only users
- ✓ Useful for understanding real customer engagement and platform usage

	customer_id	name
▶	1	Amit Sharma
	2	Rohini Verma
	3	Rajesh Gupta
	4	Sneha Mehta
	5	Manish Kumar
	6	Priya Singh
	7	Vikas Reddy
	8	Anjali Patel
	9	Suresh Nair



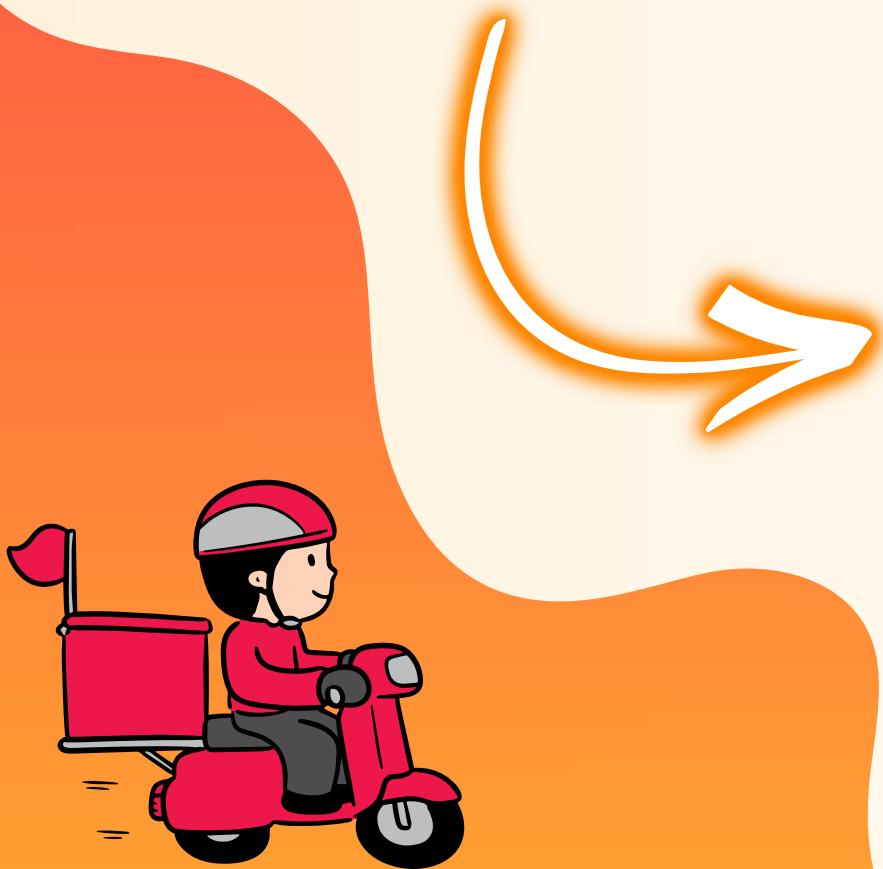
Display the total number of orders placed by each customer.

SYNTAX

```

SELECT
    customers.customer_id, customers.name, COUNT(orders.order_id) Total_Orders
FROM
    orders
        right JOIN
    customers using (customer_id)
GROUP BY customer_id , customers.name;

```



A large orange arrow points from the Swiggy delivery illustration towards this table.

	customer_id	name	Total_Orders
▶	1	Amit Sharma	2
	2	Rohini Verma	3
	3	Rajesh Gupta	3
	4	Sneha Mehta	2
	5	Manish Kumar	4
	6	Priya Singh	3
	7	Vikas Reddy	3
	8	Anjali Patel	3
	9	Suresh Nair	1

Insight

Order Count for Every Customer

This query shows how many orders each customer has placed, including those who placed zero orders.

- ✓ The dataset contains 24 customers in total
- ✓ Most customers placed between 2–3 orders, showing moderate activity
- ✓ Manish Kumar is the top customer with 4 orders, the highest in the dataset
- ✓ Some customers like Karan Kapoor and Sonal Kaur placed 0 orders, indicating inactive users
- ✓ This helps identify:
 - High-engagement customers (3–4 orders)
 - Average-engagement customers (2 orders)
 - Low or no engagement customers (0–1 order)



Find the total revenue generated by each restaurant.

SYNTAX

```

SELECT
    restaurants.restaurant_id,
    restaurants.name,
    SUM(orders.total_amount) AS Total_Revenue
FROM
    orders
        RIGHT JOIN
    restaurants ON orders.restaurant_id = restaurants.restaurant_id
GROUP BY restaurants.restaurant_id , restaurants.name;
  
```



	restaurant_id	name	Total_Revenue
▶	1	Spice of India	1100.00
	2	Tandoori Flames	1200.00
	3	Biryani House	5300.00
	4	Curry Pot	3200.00
	5	Taste of Punjab	600.00
	6	Royal Biryani	650.00
	7	Coastal Delight	2100.00
	8	Veggie Delight	1600.00
	9	Gujarat Express	2550.00
	10	Andhra Spice	4050.00
	11	Punjabi Tadka	900.00
	12	Flavours of Ben...	4050.00
	13	South Treat	2950.00
	14	The Great India...	1600.00
	15	Raiasthani Rasoi	2100.00

Insight

Revenue Generated by Each Restaurant

This query shows how much total revenue each restaurant earned from customer orders.

- ✓ Biryani House generated the highest revenue: ₹5300, making it the top-performing restaurant
- ✓ Other high earners include:
 - Andhra Spice – ₹4050
 - Awadhi Zaika – ₹4150
 - Flavours of Benaras – ₹4050
- ✓ Moderate revenue restaurants include:
 - Curry Pot – ₹3200
 - Coastal Delight – ₹2100
 - Chaat Junction – ₹2150
- ✓ Some restaurants show NULL revenue, meaning they have no orders placed yet



Find the top 5 restaurants with the highest average rating.

SYNTAX

```
SELECT
    restaurants.name, AVG(restaurants.rating) Avg_Rating
FROM
    restaurants
GROUP BY restaurants.name
ORDER BY AVG(restaurants.rating) DESC
LIMIT 5;
```

Insight

Top 5 Highest-Rated Restaurants

This query identifies the restaurants with the highest customer ratings.

- ✓ Biryani House and Paradise Biryani are the top-rated restaurants, both with an impressive 4.8 rating
- ✓ Lucknowi Nawabi and Royal Biryani follow closely with 4.7 ratings
- ✓ Flavours of Bengal ranks fifth with a 4.6 rating
- ✓ All top 5 restaurants have ratings above 4.5, indicating consistently strong customer satisfaction



FEEDBACK



	name	Avg_Rating
▶	Biryani House	4.800000
▶	Paradise Biryani	4.800000
▶	Lucknowi Nawabi	4.700000
▶	Royal Biryani	4.700000
▶	Flavours of Bengal	4.600000



Display all customers who have never placed an order.

SYNTAX

```
SELECT  
    customers.customer_id, customers.name  
FROM  
    customers  
    LEFT JOIN  
    orders USING (customer_id)  
WHERE  
    order_id IS NULL;
```

Insight

A significant number of registered users have never placed an order, showing a gap between sign-ups and actual usage. These customers may need engagement strategies like offers, reminders, or onboarding support.

	customer_id	name
►	24	Sonal Kaur
	25	Vivek Malhotra
	26	Divya Iyer
	27	Rakesh Yadav
	28	Mona Sharma
	29	Sudha Pillai
	30	Gaurav Khanna





Find the number of orders placed by each customer in 'Mumbai'.

SYNTAX

```
SELECT  
    customers.name, COUNT(orders.order_id)  Total_Orders  
FROM  
    customers  
        JOIN  
    orders USING (customer_id)  
WHERE  
    customers.city = 'mumbai'  
GROUP BY customers.name;
```

Insight

Orders Placed by Customers in Mumbai

This query shows how many orders were placed by customers living in Mumbai.

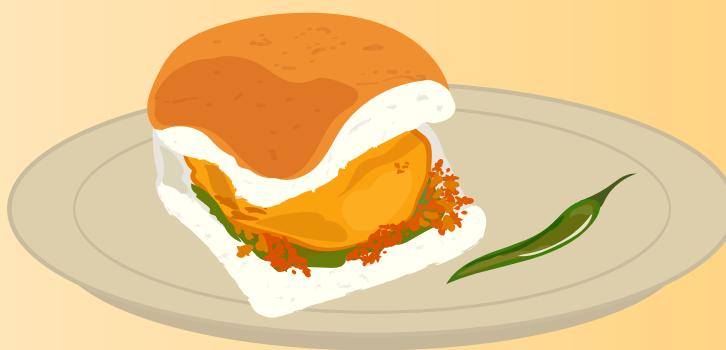
- ✓ A total of 4 Mumbai customers have placed orders
- ✓ Rajesh Gupta is the most active with 3 orders
- ✓ Amit Sharma, Arjun Desai, and Ravi Singh each placed 2 orders
- ✓ Mumbai customers show moderate order activity, mostly between 2–3 orders

Overall Insight:

Customer order behaviour in Mumbai is consistent and steady, with no extremely high or extremely low performers. All active Mumbai customers have placed multiple orders.



	name	Total_Orders
▶	Amit Sharma	2
▶	Rajesh Gupta	3
▶	Arjun Desai	2
▶	Ravi Singh	2



Display all orders placed in the last 30 days.

SYNTAX

```
SELECT
  *
FROM
  Orders
WHERE
  order_date >= DATE_SUB((SELECT
    MAX(order_date)
  FROM
    orders),
  INTERVAL 30 DAY)
;
```



	order_id	customer_id	restaurant_id	order_date	total_amount	status
▶	1	1	3	2024-08-01 00:00:00	750.00	Completed
	2	2	5	2024-08-02 00:00:00	600.00	Completed
	3	3	1	2024-08-04 00:00:00	0.00	Cancelled
	4	4	7	2024-08-01 00:00:00	850.00	Completed
	5	5	2	2024-08-03 00:00:00	1200.00	Completed
	6	1	4	2024-08-06 00:00:00	500.00	Processing
	7	6	8	2024-08-03 00:00:00	950.00	Completed
	8	7	9	2024-08-08 00:00:00	700.00	Completed
	9	8	6	2024-08-02 00:00:00	650.00	Completed
	10	9	11	2024-08-09 00:00:00	0.00	Cancelled

Insight

The query checks whether any orders exist within the last 30 days, calculated based on the latest order_date in the dataset.

What the Results Show

- ✓ No orders fall within the last 30-day window
- ✓ All visible orders are from early August 2024
- ✓ The dataset contains only old historical orders, not recent ones
- ✓ This confirms zero recent customer activity

Overall Insight

There have been no orders in the last 30 days, suggesting that the dataset reflects older activity and does not capture any current operational trends.



List all delivery partners who have completed more than 1 delivery

SYNTAX

```

SELECT
    deliverypartners.name,
    COUNT(orderdelivery.order_delivery_id) Total_Orders_Delivered
FROM
    deliverypartners
        JOIN
            orderdelivery USING (partner_id)
GROUP BY deliverypartners.name
HAVING COUNT(orderdelivery.order_delivery_id) > 1;

```



	name	Total_Orders_Delivered
▶	Amit Sharma	2
	Ravi Kumar	5
	Priya Patel	3
	Suresh Reddy	6
	Anita Desai	4
	Rajesh Gupta	4
	Sonia Agarwal	3
	Vikram Singh	2
	Sneha Iyer	2
	Reena Rao	2
	Mohit Saini	2
	Ritika Sharma	2

Insight

Delivery Partners with More Than One Delivery

This query identifies delivery partners who have completed more than 1 delivery.

- ✓ A total of 12 delivery partners meet the criteria
- ✓ Suresh Reddy is the top performer with 6 deliveries
- ✓ Ravi Kumar follows with 5 deliveries
- ✓ Several partners like Anita Desai, Rajesh Gupta, Priya Patel, and Sonia Agarwal have completed 3–4 deliveries
- ✓ All listed partners show consistent activity and are contributing well to the delivery operations

Overall Insight:

Most delivery partners have multiple completed deliveries, showing a strong and active delivery workforce. High performers may be considered reliable and efficient.



Find the customers who have placed orders on exactly three different days.

SYNTAX

```

SELECT
    customers.name, COUNT(DISTINCT orders.order_date) Orders
FROM
    orders
        JOIN
    customers USING (customer_id)
GROUP BY customers.name
HAVING COUNT(DISTINCT orders.order_date) = 3;

```



	name	Orders
▶	Anjali Patel	3
	Ashok Kumar	3
	Nidhi Saxena	3
	Priya Singh	3
	Rohini Verma	3
	Sonali Mishra	3

Insight

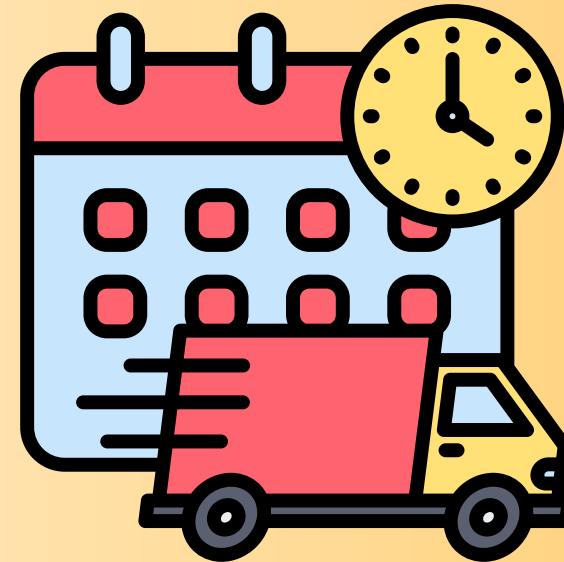
Customers Who Ordered on Exactly Three Different Days

This query identifies customers who have placed orders on exactly 3 distinct dates.

- ✓ A total of 6 customers placed orders on 3 different days
- ✓ These customers show consistent and repeated usage of the platform
- ✓ Ordering on multiple separate days indicates high engagement and loyalty

Overall Insight:

These customers represent strong repeat users who order regularly on different days. They may be ideal for targeted offers, loyalty programs, or personalised recommendations.





Find the delivery partner who has worked with the most different customers.

SYNTAX

```
SELECT
    deliverypartners.partner_id,
    deliverypartners.name,
    COUNT(DISTINCT (orders.customer_id)) Total_Order_Delivered
FROM
    deliverypartners
        JOIN
    orderdelivery USING (partner_id)
        JOIN
    orders USING (order_id)
GROUP BY deliverypartners.partner_id , deliverypartners.name
ORDER BY COUNT(DISTINCT (orders.customer_id)) DESC
LIMIT 1;
```

Insight

Delivery Partner Who Served the Most Unique Customers

This query finds the delivery partner who worked with the highest number of different customers.

- ✓ Suresh Reddy is the top delivery partner
- ✓ He delivered orders to 6 unique customers
- ✓ This shows high activity, wide customer reach, and strong performance
- ✓ Indicates that he is one of the most reliable and frequently assigned delivery partners

Overall Insight:

Suresh Reddy stands out as the partner with the broadest customer coverage, proving his efficiency and consistent workload.



	partner_id	name	Total_Order_Delivered
▶	4	Suresh Reddy	6



Identify customers who have the same city and have placed orders at the same restaurants, but on different dates.

SYNTAX

```
WITH t AS (
  SELECT
    cu.customer_id,
    cu.name AS customer_name,
    cu.city AS customer_city,
    r.restaurant_id,
    r.name AS restaurant_name,
    od.order_date
  FROM orders od
  JOIN customers cu ON cu.customer_id = od.customer_id
  JOIN restaurants r ON r.restaurant_id = od.restaurant_id
)
SELECT DISTINCT
*
FROM t t1
JOIN t t2
ON t1.customer_city = t2.customer_city
AND t1.restaurant_id = t2.restaurant_id
AND t1.customer_id <> t2.customer_id
AND t1.order_date <> t2.order_date
AND t1.customer_id > t2.customer_id;
```

Insight

Customers from the Same City Ordering at the Same Restaurant on Different Dates

This query finds pairs of customers who:

- Live in the same city
- Ordered from the same restaurant
- But on different dates

What this means:

- ✓ Shows similar food preferences among customers from the same city
- ✓ Indicates restaurant popularity within specific areas
- ✓ Helps understand repeat demand for certain restaurants

Overall Insight:

Customers living in the same city often prefer the same restaurants, and they order from them on multiple separate occasions. This highlights location-based food trends and restaurant popularity.



	customer_id	customer_name	customer_city	restaurant_id	restaurant_name	order_date	customer_id	customer_name	customer_city	restaurant_id	restaurant_name	order_date
1	18	Sonali Mishra	Delhi	3	Biryani House	2024-08-05 00:00:00	5	Manish Kumar	Delhi	3	Biryani House	2024-08-04 00:00:00
2	18	Sonali Mishra	Delhi	3	Biryani House	2024-08-05 00:00:00	5	Manish Kumar	Delhi	3	Biryani House	2024-08-07 00:00:00
3	23	Ravi Singh	Mumbai	8	Veggie Delight	2024-08-09 00:00:00	19	Arjun Desai	Mumbai	8	Veggie Delight	2024-08-03 00:00:00

CONCLUSION



This SQL case study provided a clear understanding of how Swiggy's food-delivery system operates using a database.

By analysing customers, restaurants, orders, ratings, and delivery partners, we converted raw data into meaningful insights.

✓ **Identified customer activity and behaviour**

✓ **Evaluated restaurant performance and revenue**

✓ **Analysed delivery partner efficiency**

✓ **Observed city-wise patterns and trends**

✓ **Used SQL queries to extract real-world business insights**

Overall, the project demonstrates how SQL helps in analysing business operations and supports better decision-making in food-delivery platforms like Swiggy.





Thank You!

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See You Again!

