

## Swiggy SQL project: Order and Delivery Details:-



### *Project Overview*

This project involves the creation and analysis of a dummy dataset resembling the operations of Swiggy, one of India's leading food delivery platforms. The dataset captures key aspects of the food delivery ecosystem, including customer orders, restaurant details, delivery times, ratings, and performance of delivery partners. By simulating real-world data, the objective is to apply intermediate-level SQL queries to derive valuable business insights.

*Create table after connecting to the database:-*

```

CREATE TABLE Swiggy_dummy_dataset (
    Order_ID INT PRIMARY KEY,
    City VARCHAR(100),
    Restaurant VARCHAR(100),
    Dish VARCHAR(100),
    Customer_ID INT,
    Order_Date DATE,
    Delivery_Partner_ID INT,
    Delivery_Time_Minutes INT,
    Order_Amount DECIMAL(10, 2),
    Customer_Rating DECIMAL(2, 1),
    Order_Status VARCHAR(50),
    Is_On_Time BOOLEAN
);

```

### *First View of Dataset:-*

SQL Output Messages Notifications

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order_id [PK] integer	city character varying (100)	restaurant character varying (100)	dish character varying (100)	customer_id integer	order_date date	delivery_partner_id integer	delivery_time_minutes integer	order_amount numeric (10,2)	customer_rating numeric (2,1)	order_status varchar (50)	is_on_time boolean
1	Pune	Tandoori Spot	Masala Dosa	122	2025-01-05	229	15	228.54	4.5	Completed	True
2	Mumbai	Burger Stop	Rasgulla	186	2024-06-03	239	41	540.33	3.5	Completed	True
3	Delhi	Noodle Bar	Rasgulla	127	2025-04-09	223	60	362.90	4.0	Completed	True
4	Pune	Sweet Treats	Veg Pizza	117	2024-08-08	223	21	672.85	4.5	Completed	True
5	Delhi	Pizza Corner	Masala Dosa	123	2025-02-03	223	45	305.96	4.0	Completed	True
6	Ahmedabad	Tandoori Spot	Chicken Biryani	106	2025-01-01	233	56	379.91	4.0	Completed	True
7	Hyderabad	Biryani House	Chicken Biryani	136	2024-09-27	234	50	571.66	4.5	Completed	True
8	Hyderabad	Pizza Corner	Cheese Burger	198	2024-06-28	239	46	279.27	4.0	Completed	True
9	Ahmedabad	Noodle Bar	Chicken Biryani	105	2024-08-31	221	39	548.50	4.0	Completed	True



*SQL Queries for Business insights:-*

1. What is the average delivery time and average customer rating for each city?

```
SELECT City,  
        AVG(Delivery_Time_Minutes) AS Avg_Delivery_Time,  
        AVG(Customer_Rating) AS Avg_Rating  
FROM Swiggy_dummy_dataset  
GROUP BY City;
```

**Output:-**

	city character varying (100) 🔒	avg_delivery_time numeric 🔒	avg_rating numeric 🔒
1	Bangalore	39.3529411764705882	2.9352941176470588
2	Mumbai	33.8666666666666667	3.3400000000000000
3	Kolkata	38.7142857142857143	3.3500000000000000
4	Chennai	36.1538461538461538	2.6884615384615385
5	Delhi	41.5000000000000000	2.8555555555555556
6	Pune	36.9444444444444444	3.3388888888888889
7	Hyderabad	38.5882352941176471	3.0117647058823529
8	Ahmedabad	38.1200000000000000	2.8800000000000000

2. Which restaurant had the highest average order amount in 2024?

```
SELECT Restaurant,
       ROUND(AVG(Order_Amount),2) AS Avg_Order_Amount
FROM Swiggy_dummy_dataset
WHERE EXTRACT(YEAR FROM Order_Date) = 2024
GROUP BY Restaurant
ORDER BY Avg_Order_Amount DESC
LIMIT 1;
```

OUTPUT:-

	restaurant character varying (100) 🔒	avg_order_amount numeric 🔒
1	Tandoori Spot	470.25

3. Find the number of orders delivered on time vs late for each delivery partner.

```
SELECT Delivery_Partner_ID,  
       SUM(CASE WHEN Is_On_Time THEN 1 ELSE 0 END) AS On_Time_Orders,  
       SUM(CASE WHEN NOT Is_On_Time THEN 1 ELSE 0 END) AS Late_Orders  
FROM Swiggy_dummy_dataset  
GROUP BY Delivery_Partner_ID;
```



Output:-

	delivery_partner_id integer	on_time_orders bigint	late_orders bigint
1	209	1	2
2	235	1	0
3	239	4	6
4	229	2	3
5	225	1	1
6	206	3	1
7	205	0	5
8	240	1	0
9	224	2	2
10	201	1	3
11	214	4	1
12	230	1	1

4. Identify the top 3 most ordered dishes in terms of order count.

```
SELECT Dish, COUNT(*) AS Order_Count
FROM Swiggy_dummy_dataset
GROUP BY Dish
ORDER BY Order_Count DESC
LIMIT 3;
```



Output:-

	dish character varying (100) 	order_count bigint 
1	Hakka Noodles	32
2	Veg Pizza	26
3	Paneer Tikka	21

5. Which city has the highest percentage of late deliveries?

```
SELECT City,
       round(100.0 * SUM(CASE WHEN NOT Is_On_Time THEN 1 ELSE 0 END) / COUNT(*),2) AS Late_Percentage
FROM Swiggy_dummy_dataset
GROUP BY City
ORDER BY Late_Percentage DESC
LIMIT 1;
```

Output:-

	city character varying (100) 	late_percentage numeric 
1	Mumbai	73.33



6. Show the monthly total revenue generated in 2024.

```

SELECT DATE_TRUNC('month', Order_Date) AS Month,
       SUM(Order_Amount) AS Total_Revenue
FROM Swiggy_dummy_dataset
WHERE EXTRACT(YEAR FROM Order_Date) = 2024
GROUP BY DATE_TRUNC('month', Order_Date)
ORDER BY Month;

```

Output:-

	month timestamp with time zone 	total_revenue numeric 
1	2024-05-01 00:00:00+05:30	2437.08
2	2024-06-01 00:00:00+05:30	6789.12
3	2024-07-01 00:00:00+05:30	3691.91
4	2024-08-01 00:00:00+05:30	7071.45
5	2024-09-01 00:00:00+05:30	6305.21
6	2024-10-01 00:00:00+05:30	5323.33
7	2024-11-01 00:00:00+05:30	4274.60
8	2024-12-01 00:00:00+05:30	2873.98



7. Which delivery partner has the lowest average delivery time?

```

SELECT Delivery_Partner_ID,
       round(AVG(Delivery_Time_Minutes),2) AS Avg_Delivery_Time
FROM Swiggy_dummy_dataset
GROUP BY Delivery_Partner_ID
ORDER BY Avg_Delivery_Time
LIMIT 1;

```



Output:-

	delivery_partner_id  integer	avg_delivery_time  numeric
1	250	17.50

8. Find customers who have given a rating below 2 more than once.

```
SELECT Customer_ID, COUNT(*) AS Low_Rating_Count
FROM Swiggy_dummy_dataset
WHERE Customer_Rating < 2
GROUP BY Customer_ID
HAVING COUNT(*) > 1;
```

Output:-


	customer_id  integer	low_rating_count  bigint
1	150	2
2	122	2
3	127	2
4	110	2
5	199	2
6	149	2
7	151	2

9. List restaurants where the majority of their orders were not delivered on time.



```
SELECT Restaurant
FROM Swiggy_dummy_dataset
GROUP BY Restaurant
HAVING SUM(CASE WHEN Is_On_Time THEN 1 ELSE 0 END) < SUM(CASE WHEN NOT Is_On_Time THEN 1 ELSE 0 END);
```

**Output:-**

	restaurant character varying (100) 
1	Noodle Bar
2	Burger Stop
3	South Spice
4	Sweet Treats
5	Biryani House

**10. Find the top 5 customers by total spend and show their average rating.**

```
SELECT Customer_ID,
       SUM(Order_Amount) AS Total_Spend,
       round(AVG(Customer_Rating),2) AS Avg_Rating
FROM Swiggy_dummy_dataset
GROUP BY Customer_ID
ORDER BY Total_Spend DESC
LIMIT 5;
```

**Output:-**

	customer_id integer 🔒	total_spend numeric 🔒	avg_rating numeric 🔒
1	115	2297.52	3.48
2	114	1885.09	3.70
3	150	1835.56	1.63
4	124	1794.98	3.67
5	149	1773.70	2.18

## 📌 Conclusion



Through this project, we explored a simulated Swiggy food delivery dataset using intermediate-level SQL queries. Each query was designed to extract valuable insights about customer behavior, restaurant performance, and delivery efficiency. By analyzing various dimensions such as average delivery times, customer ratings, top dishes, and on-time delivery metrics, we demonstrated how SQL can be effectively used in real-world business scenarios.

This project not only strengthened practical SQL skills but also provided a clear understanding of how data-driven decisions can improve operations in the food delivery industry.