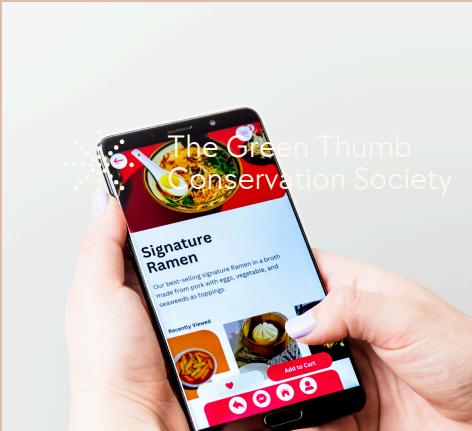


Online Food Delivery SQL Project

DOMAIN: E-COMMERCE

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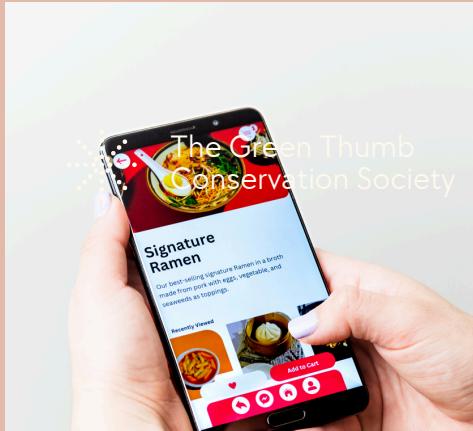
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Objective

This project aims to explore and analyze an online food delivery dataset using SQL. The goal is to uncover key insights about customers, restaurants, and orders through structured queries. It demonstrates the use of joins, aggregations, and filtering to support data-driven decision-making in an e-commerce setting.



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Dataset Description

Name: Online Food Delivery Dataset

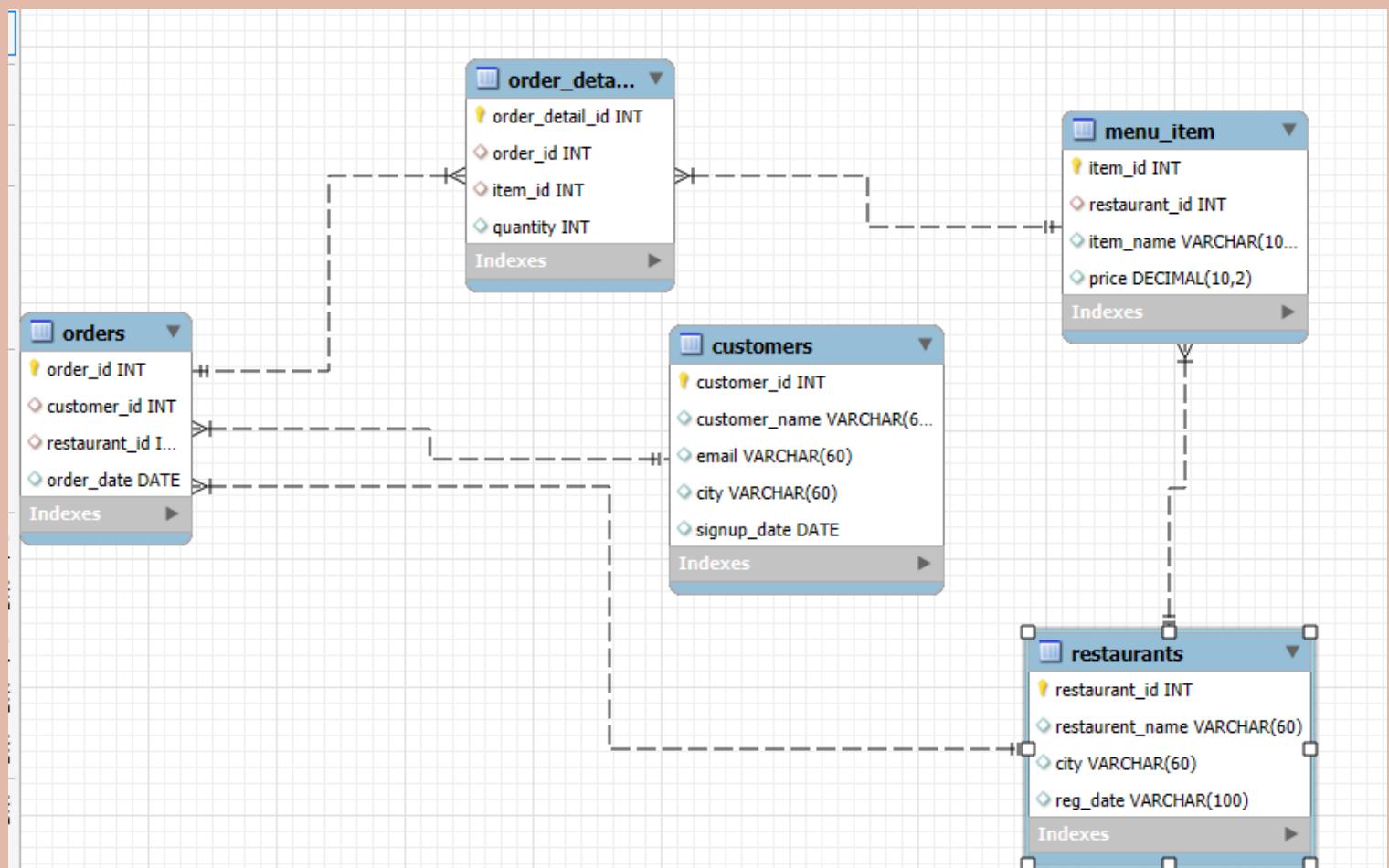
Number of Tables: 5

Table Name	Description
customers	Contains customer details including ID, name, and city
orders	Stores order-level data such as order ID, customer ID, date, and total amount
order_details	Line-item level breakdown for each order including quantity and item ID
products	Product catalog with item names, categories, and prices
restaurants	Contains information about restaurants offering the items



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ER Diagram Primary and Foreign Keys Relationships





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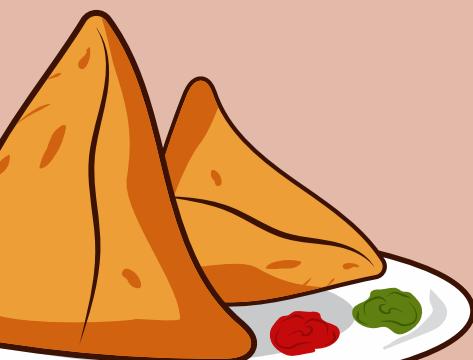
Q1: Total Orders by City

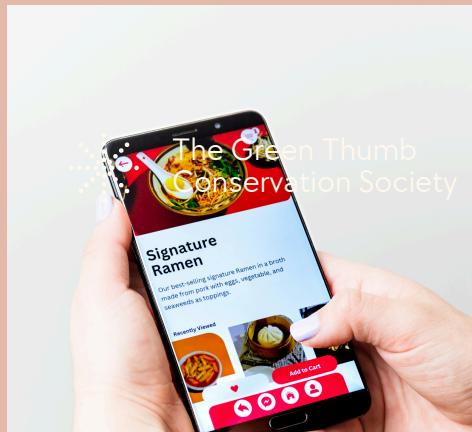
```
-- 1.Total Orders per City
```

```
SELECT r.city, COUNT(o.order_id) as total_orders
FROM restaurants r JOIN orders o ON o.restaurant_id=r.restaurant_id
GROUP BY r.city
ORDER BY total_orders DESC;
```

Result Grid | Filter Rows

	city	total_orders
▶	Jaipur	290
	Hyderabad	197
	Delhi	184
	Surat	166
	Pune	166
	Chennai	162
	Bangalore	116
	Kolkata	95
	Mumbai	65
	Ahmedabad	59





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Q2: Revenue Generated by Each Food Item

```
-- 2.Revenue Generated by Each Food Item
```

```
SELECT m.item_name, SUM(m.price*od.quantity) as total_Revenue  
FROM menu_items m JOIN order_details od ON od.item_id=m.item_id  
GROUP BY m.item_name  
ORDER BY total_Revenue DESC;
```

	item_name	total_Revenue
▶	Aloo Paratha	232477.77000000022
	Fish Curry	212755.36999999973
	Hakka Noodles	205411.68000000005
	Momos	203851.13999999998
	Paneer Tikka	185606.52999999994
	Paneer Butter Masala	168535.38999999993
	Other Items	125440.46000000014
	Result 3	



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Q3: Top 5 Spending Customers

```
-- 3.Top 5 Spending Customers
SELECT c.customer_name, SUM(m.price) as total_spend
FROM customers c
JOIN orders o ON o.customer_id=c.customer_id
JOIN menu_items m ON m.restaurant_id=o.restaurant_id
GROUP BY c.customer_name
ORDER BY total_spend DESC
LIMIT 5;
```

Result Grid | Filter Rows:

	customer_name	total_spend
▶	Sai Verma	67967.99
	Vihaan Patel	62848.07000000001
	Reyansh Verma	59127.95
	Arjun Mehta	54977.61000000001
	Muhammad Patel	53813.87999999997





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Q4: Restaurant-wise order count

-- 4. Restaurant-wise Order Count

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

	restaurent_name	total_orders
▶	Golden Garden	90
	Spice Palace	71
	Tasty Bistro	68
	Big Table	66
	Flavors Corner	61
	Royal Garden	59

	Result 5	x



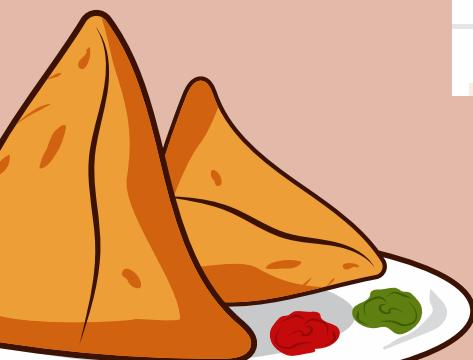


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Q5: Average order by City

```
-- 5. Average Order Value by City
SELECT r.city, sum(m.price*od.quantity)/COUNT(o.order_id)as Avg_order_value
FROM restaurants r
JOIN orders o ON o.restaurant_id=r.restaurant_id
JOIN order_details od ON od.order_id=o.order_id
JOIN menu_items m ON m.item_id=od.item_id
GROUP BY r.city
ORDER BY Avg_order_value DESC;
```

	city	Avg_order_value
▶	Kolkata	1136.315683060109
	Hyderabad	1079.3258630136986
	Jaipur	1064.942086466166
	Surat	1047.1485000000007
	Pune	1033.8448986486483
	Ahmedabad	1033.8432142857148





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Q6: Monthly Order Trends

-- 1.Monthly Order Trends

```
SELECT MONTH(order_date) as month_number, monthname(order_date) as order_month, COUNT(order_id) as total_orders
FROM orders
GROUP BY MONTH(order_date), monthname(order_date)
ORDER BY month number;
```

Result Grid | Filter Rows:

	month_number	order_month	total_orders
▶	1	January	145
	2	February	137
	3	March	143
	4	April	142
	5	May	152
	6	June	147
	7	July	126
	8	August	107
	9	September	107
	10	October	105





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Q7: Cities by Revenue

```
-- 2.Top 3 Cities by Revenue
• SELECT c.city, sum(m.price*od.quantity) as total_revenue
  FROM customers c
  JOIN orders o ON o.customer_id=c.customer_id
  JOIN order_details od ON o.order_id=od.order_id
  JOIN menu_items m ON m.item_id=od.item_id
  GROUP BY c.city
  ORDER BY total_revenue DESC
  LIMIT 3;
```



	city	total_revenue
▶	Chennai	349264.8899999999
	Pune	305873.6800000001
	Bangalore	299747.6499999998



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Q8: Number of Unique customers per City

```
-- 3.Number of Unique Customers per City (hint: COUNT(DISTINCT customer_id))
SELECT city, COUNT(DISTINCT customer_id) as unique_customer
FROM customers
GROUP BY city
ORDER BY unique_customer DESC;
```

Result Grid | Filter Rows:

	city	unique_customer
▶	Ahmedabad	58
	Chennai	56
	Kolkata	56
	Mumbai	54
	Pune	50
	Delhi	49
	Surat	48
		47

Result 4 ×





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Q9: Most Frequently Ordered Items

-- 4.Most Frequently Ordered Items

```
SELECT m.item_name, COUNT(od.order_id) as total_orders
FROM order_details od JOIN menu_items m ON m.item_id=od.item_id
GROUP BY m.item_name
ORDER BY total_orders DESC;
```

	item_name	total_orders
▶	Fish Curry	205
	Momos	197
	Aloo Paratha	188
	Paneer Tikka	183
	Hakka Noodles	169
	Paneer Butter Masala	162
	Gulab Jamun	161
...		...
	Result 6	×





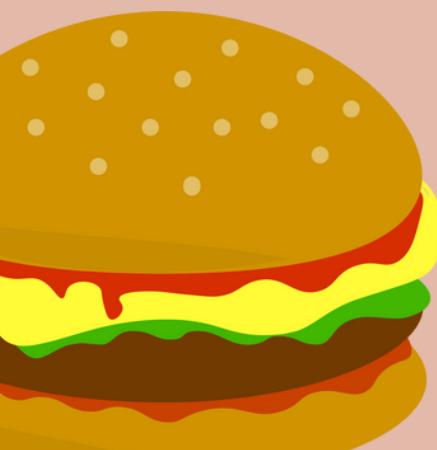
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Q10: Restaurant with low order counts

```
-- 5. Restaurants with Low Order Counts (< 30)
```

```
SELECT r.restaurant_name, COUNT(o.order_id) as total_orders  
FROM orders o JOIN restaurants r ON r.restaurant_id=o.restaurant_id  
GROUP BY r.restaurant_name  
HAVING COUNT(o.order_id)<30  
ORDER BY total_orders ;  
  
GOLDEN DINER IS THE LOW ORDERS
```

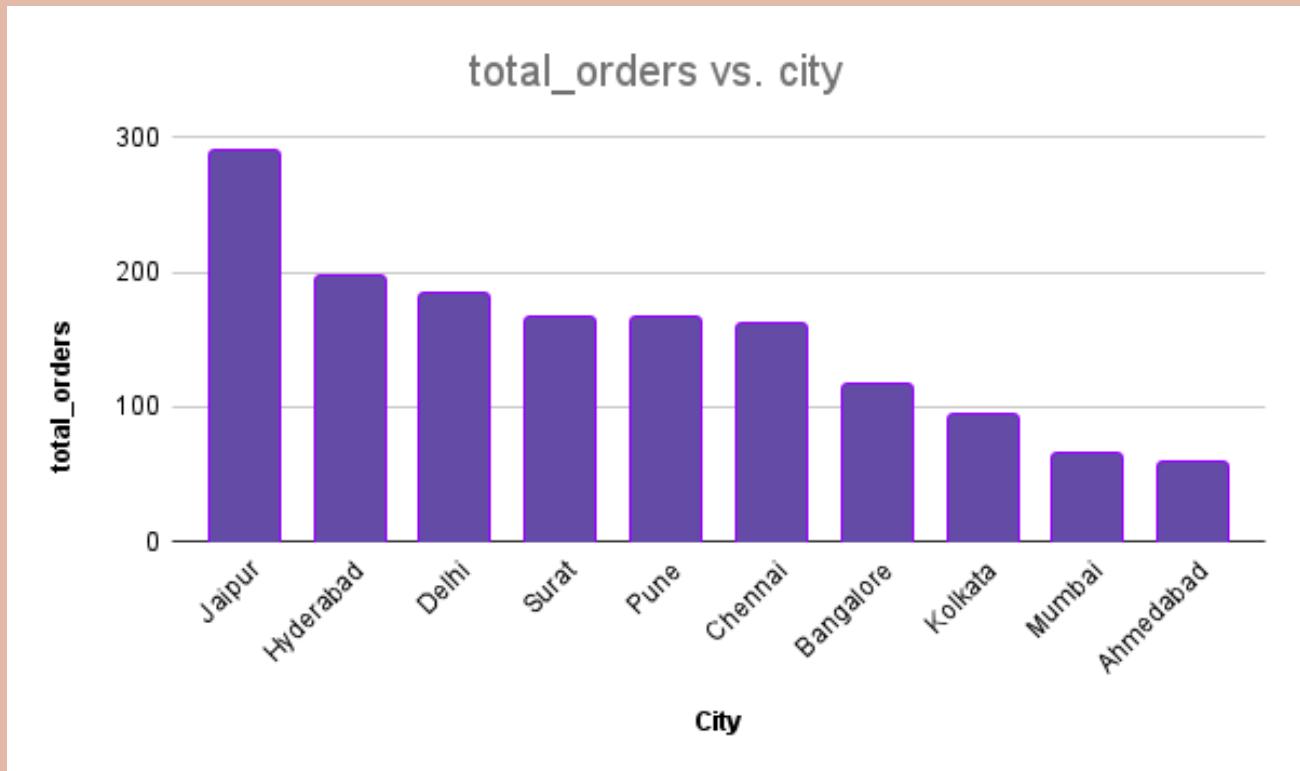
	restaurent_name	total_orders
▶	Golden Diner	14
	Royal Kitchen	19
	Flavors Palace	22
	Happy Kitchen	22
	Royal Corner	24
	Urban Corner	24
	Big Corner	26
Result 7		X





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Visualization & Insights

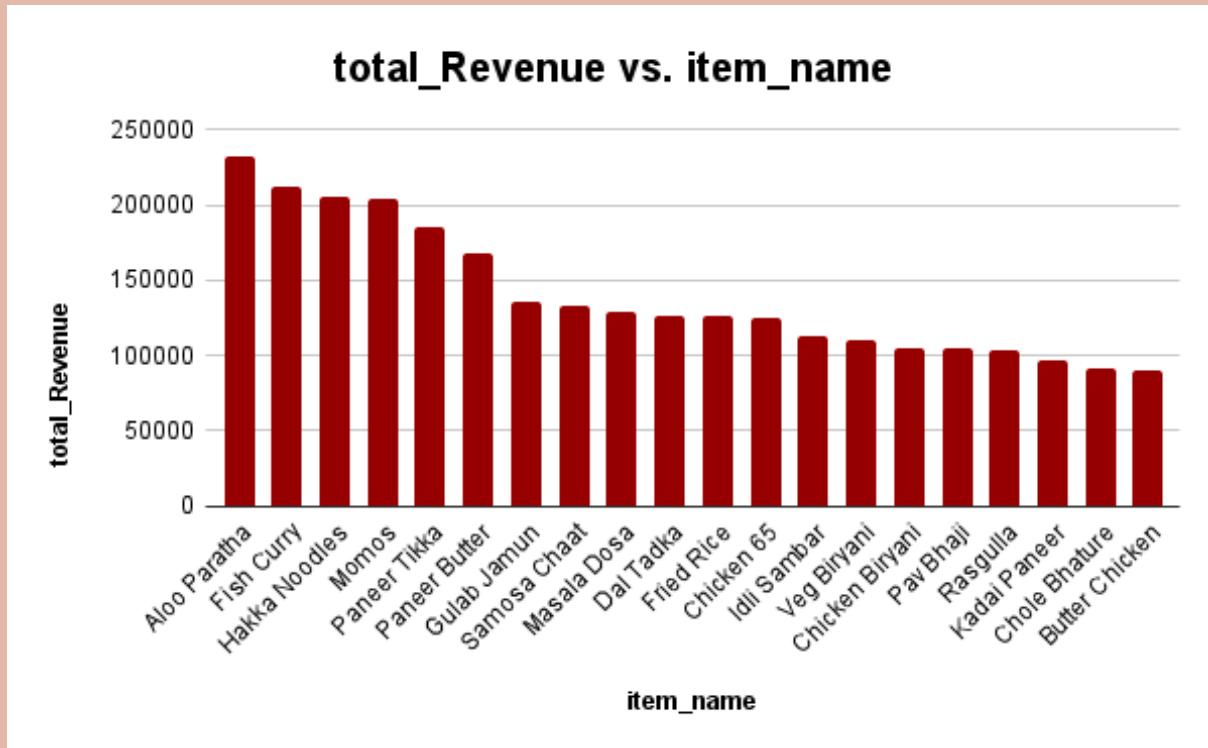


- **Jaipur leads in total orders across all cities.**
- **Hyderabad and Delhi follow as high-order cities.**
- **Ahmedabad and Mumbai had the lowest number of orders.**





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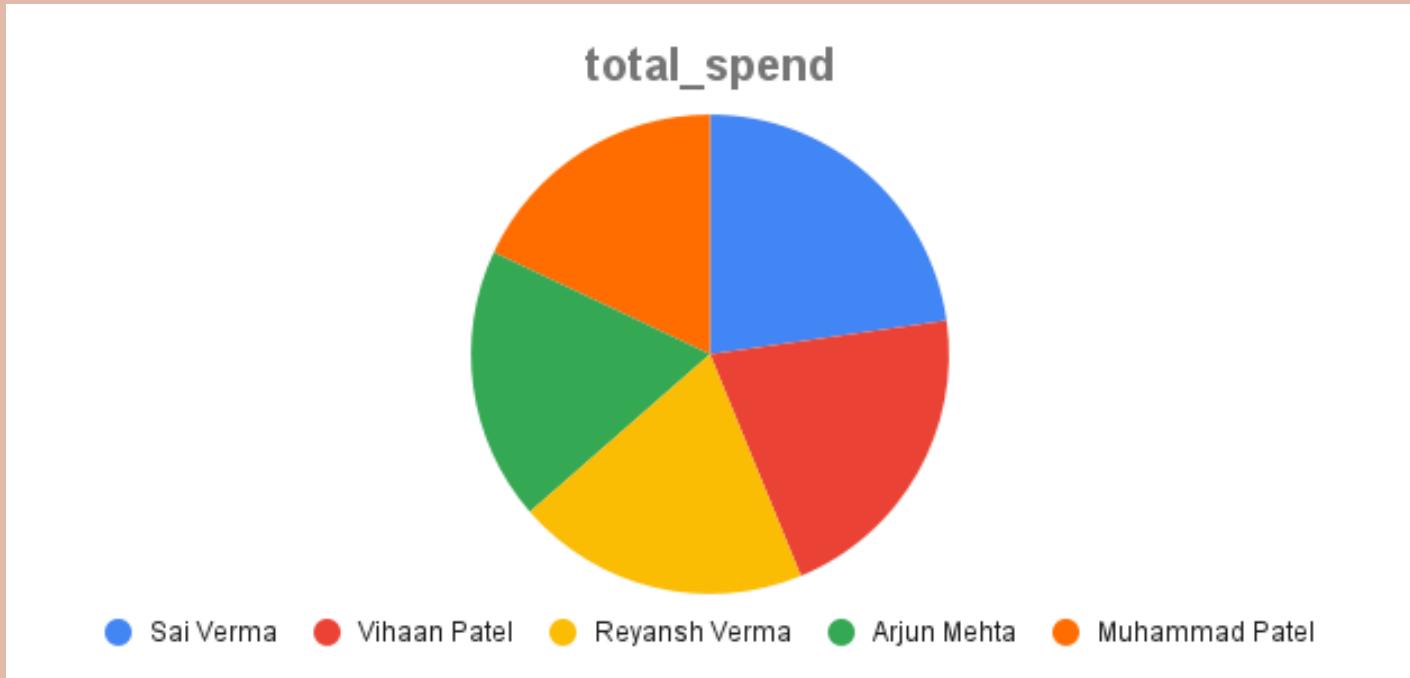


- **Aloo Paratha generates the highest total revenue.**
- **Fish Curry and Hakka Noodles also contribute significantly.**
- **Higher-priced items don't always mean higher total revenue.**





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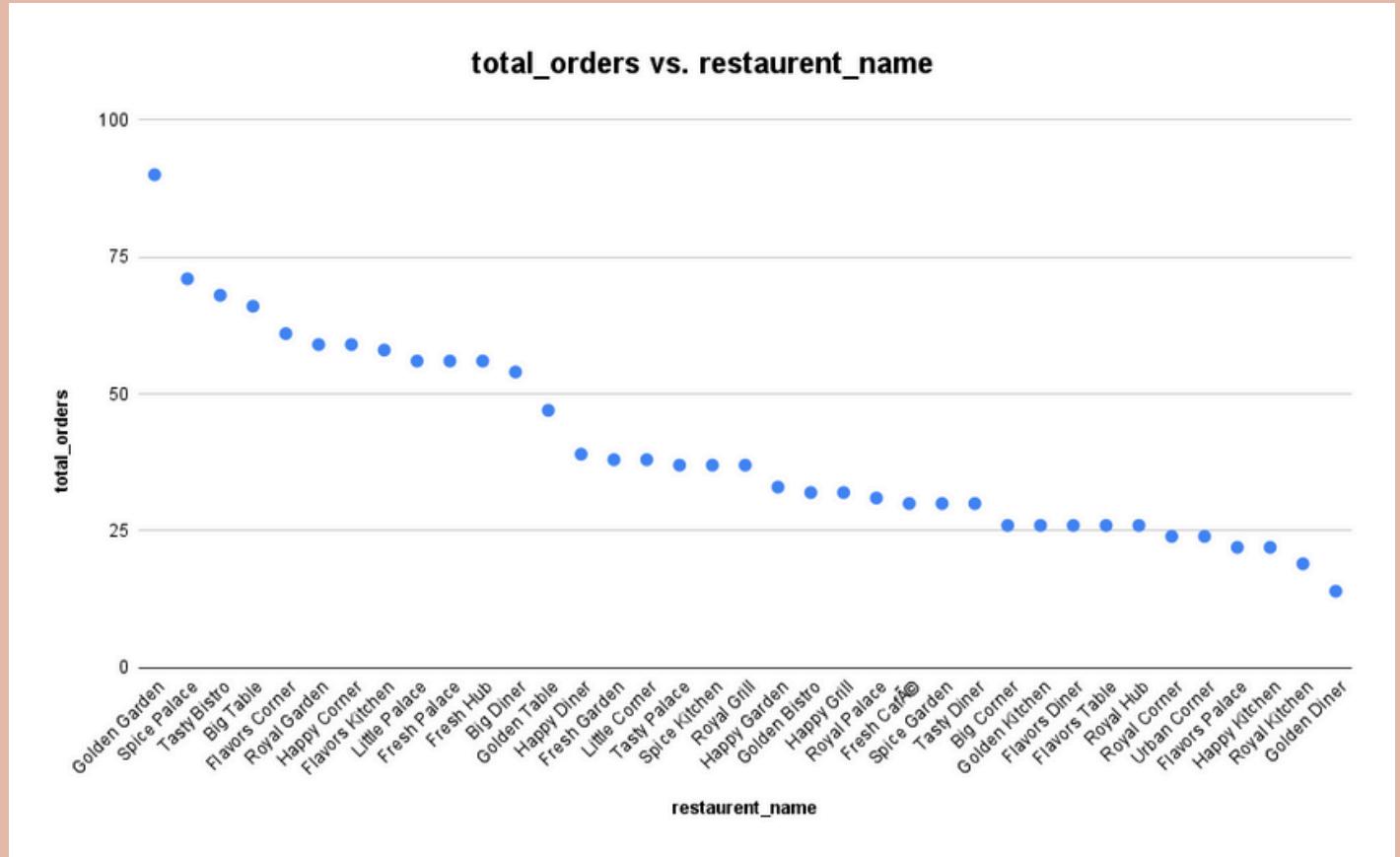


- **Sai Verma is the top spender, followed closely by Vihaan and Reyansh.**
- **Spend patterns are evenly spread among the top 5 customers.**
- **Indicates high-value customers contribute significantly to revenue.**





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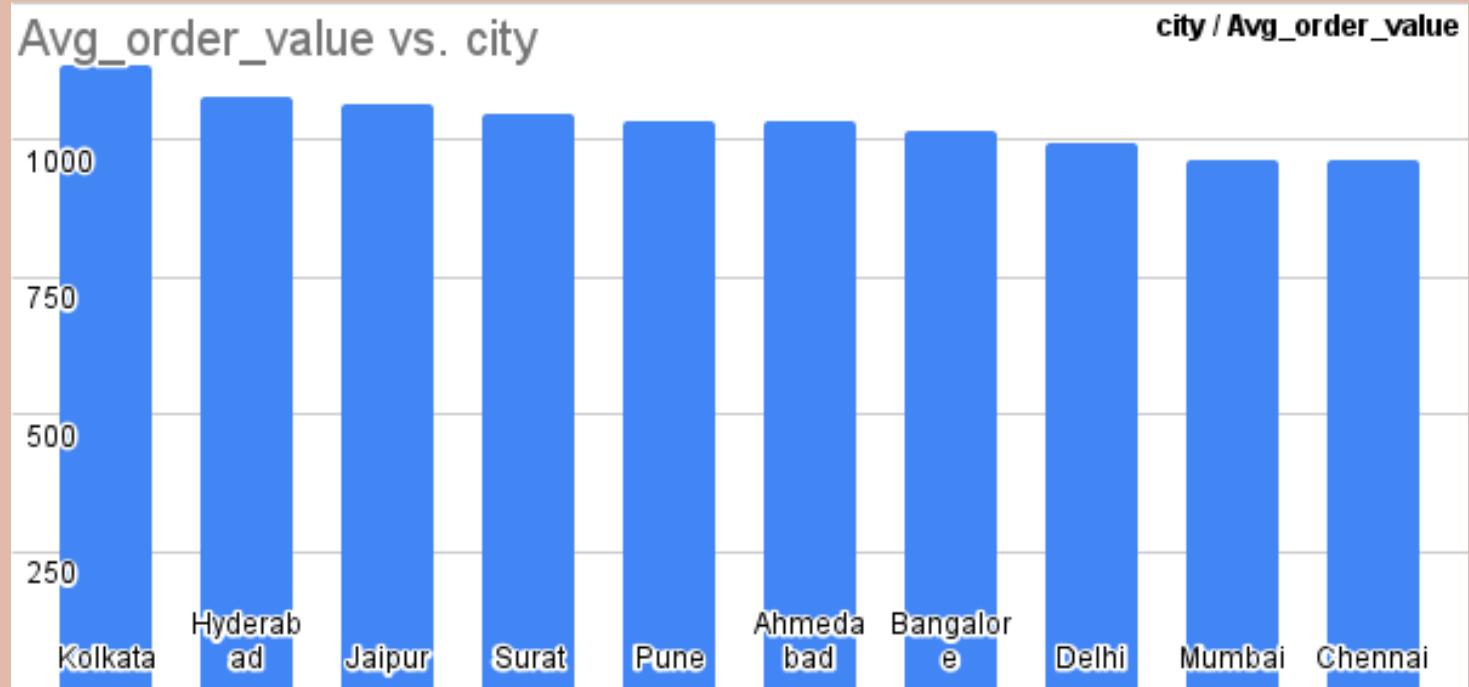


- Golden Diner and Royal Kitchen have the highest number of total orders among all restaurants.
- A noticeable drop in orders is seen for other restaurants like Flavors Diner and Royal Hub.
- This suggests a clear preference for a few top-performing restaurants by customers.





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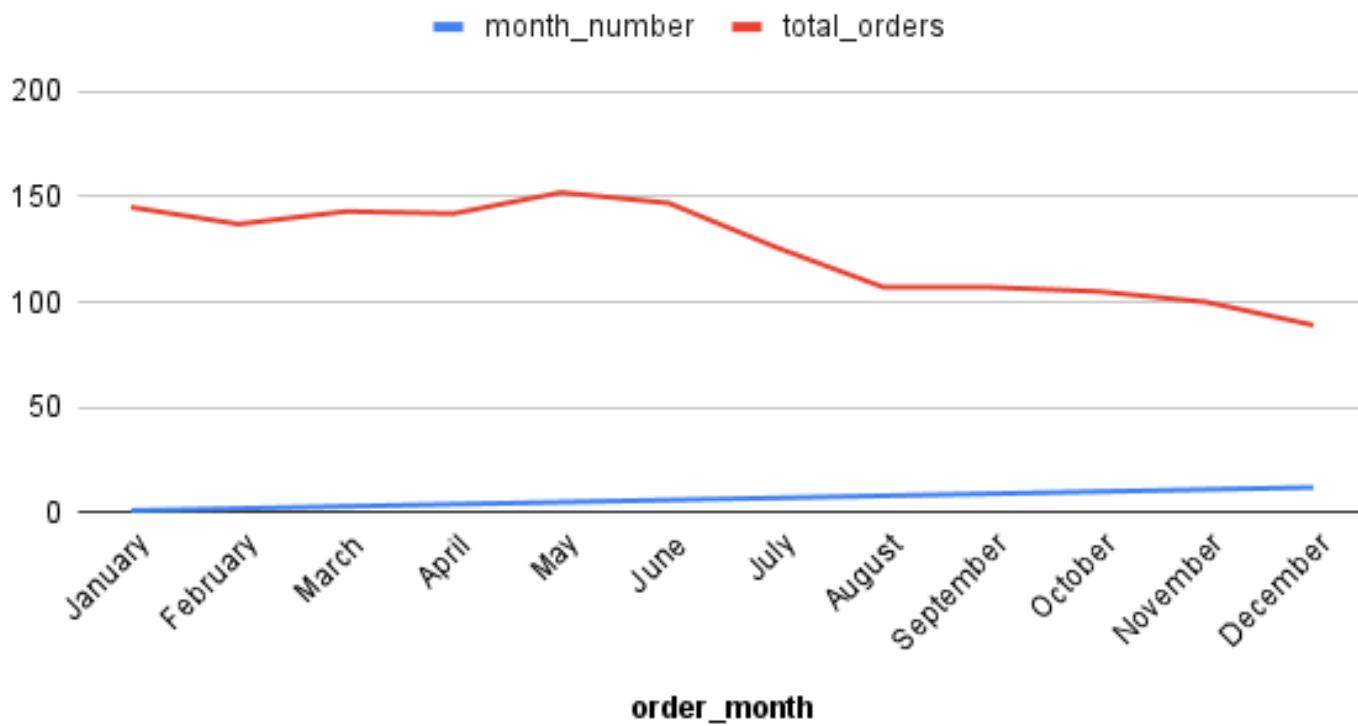
- **Kolkata has the highest average order value, followed by Hyderabad.**
- **Southern cities like Chennai and Mumbai show relatively lower values.**
- **Indicates premium food purchases in Kolkata and Hyderabad**





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month_number and total_orders



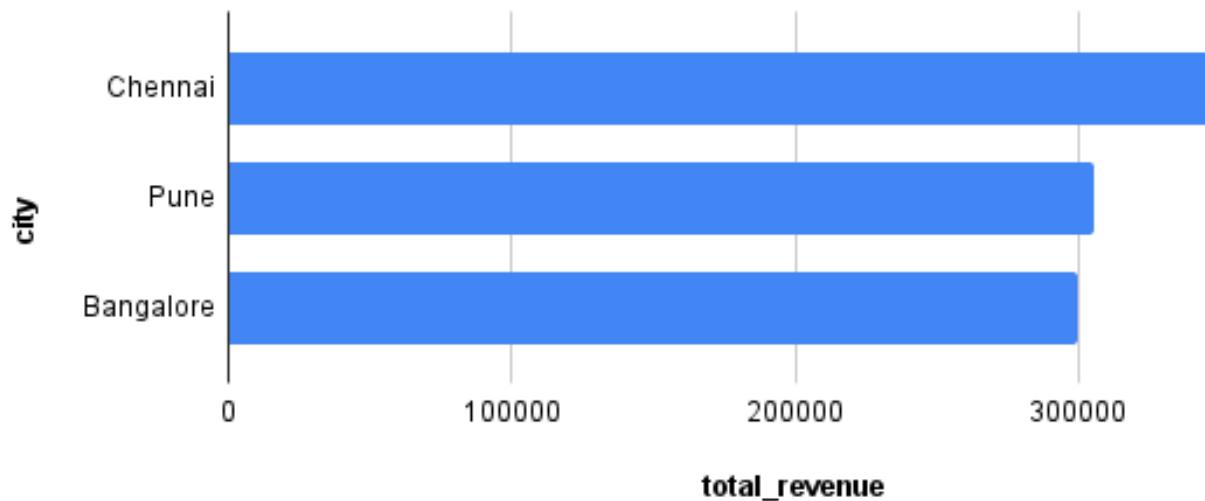
- May saw the highest number of orders across the year.
- Steady decline in orders from August to December.
- Seasonality impacts ordering behavior—more analysis needed.





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total_revenue vs. city





unique_customer vs. city

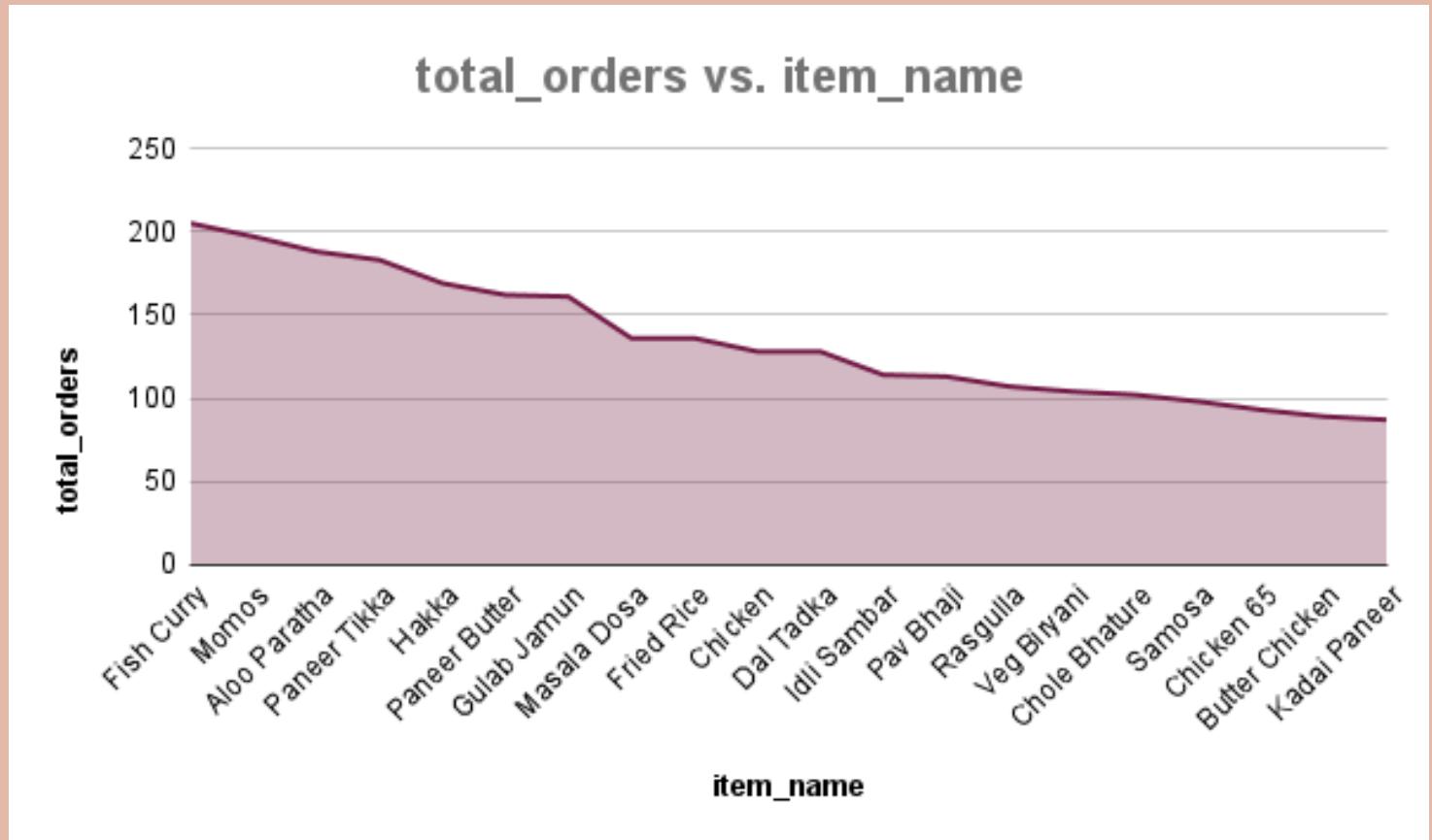


- Customer base is fairly evenly distributed across top cities.
- Cities like Ahmedabad, Chennai, and Kolkata show equal customer proportions.
- There is no strong dominance by any single city.





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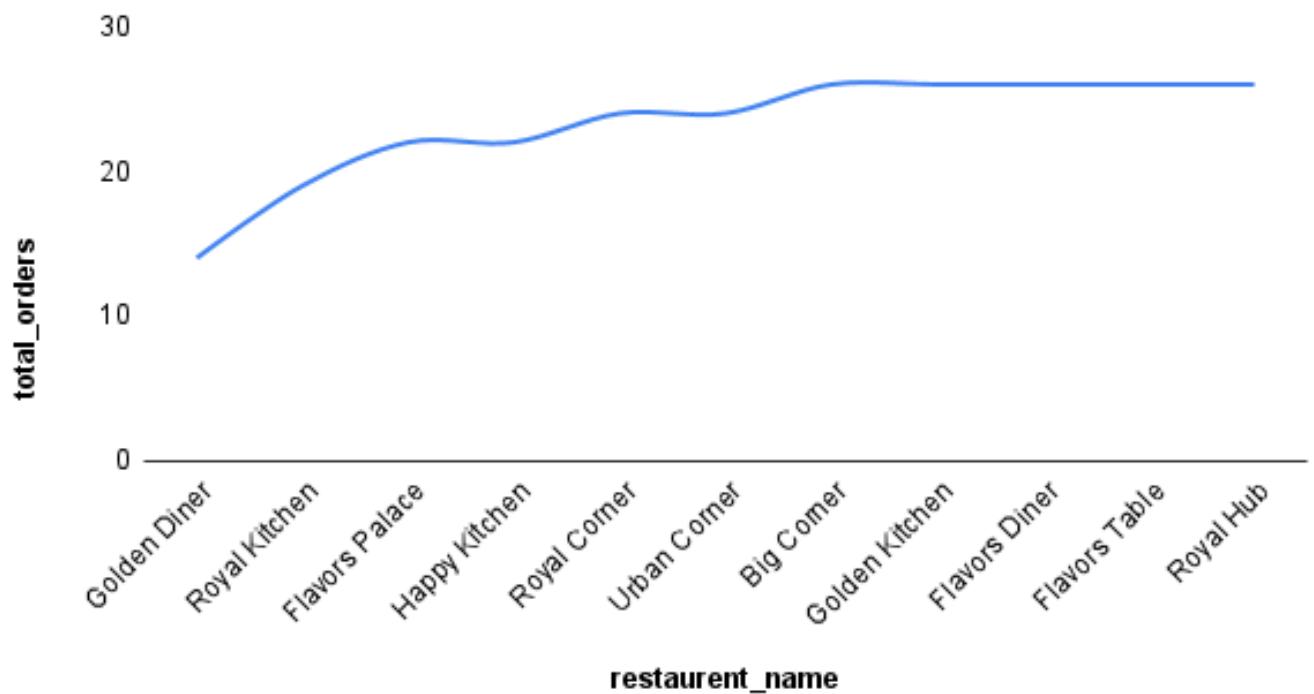
- **Fish Curry and Momos are the most ordered food items.**
- **Items like Kadai Paneer and Butter Chicken had fewer orders.**
- **North Indian dishes dominate the top order list.**





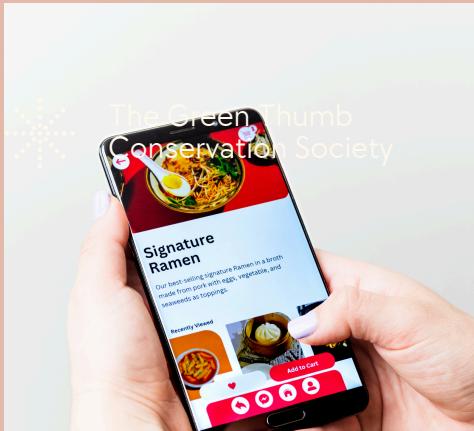
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total_orders vs. restaurent_name



- Big Corner received the highest number of orders among restaurants.
- Golden Diner had the fewest total orders.
- Most restaurants received between 22–28 orders, showing even distribution.





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Conclusion

Wrap up the project with:

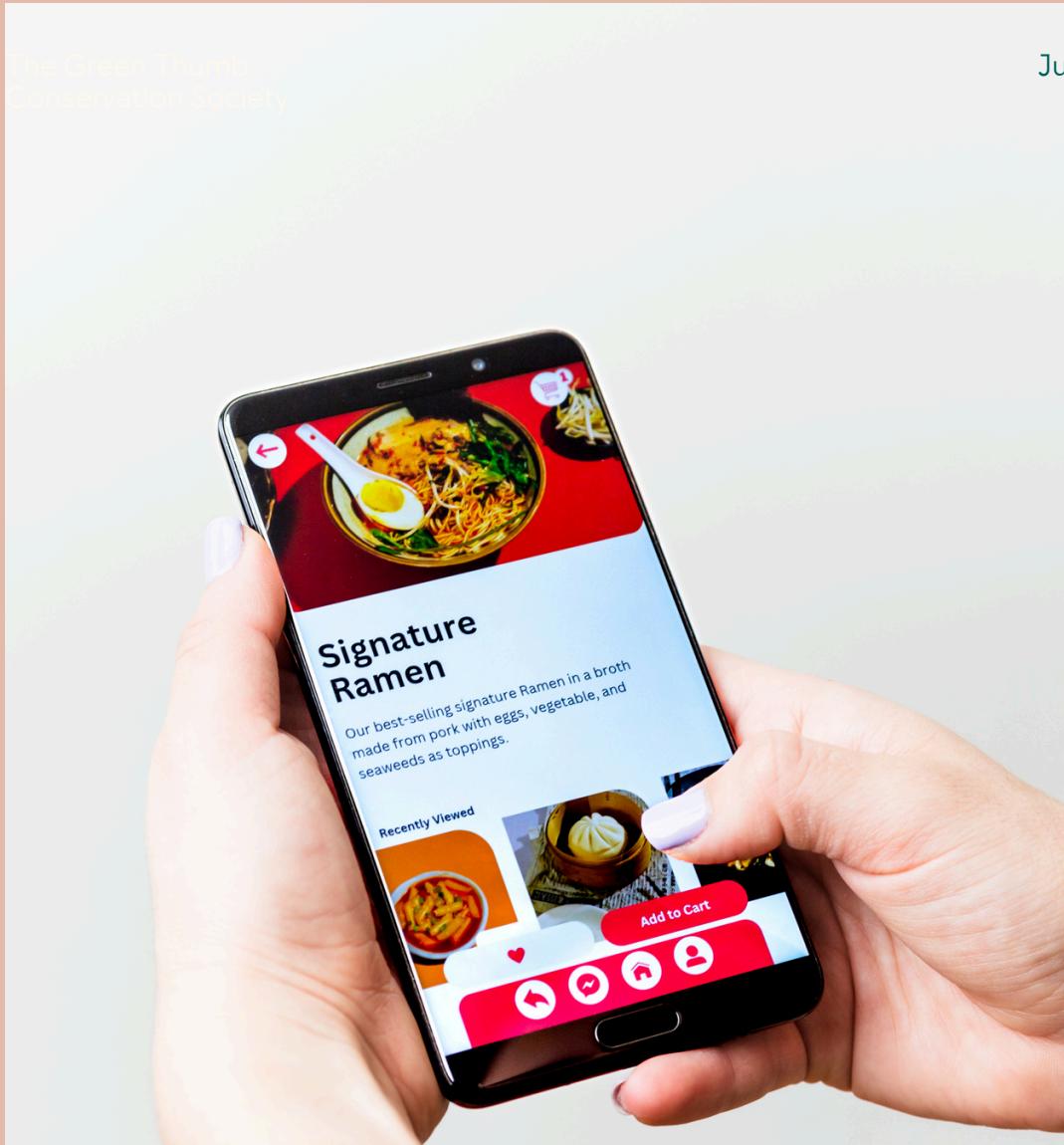
This project provided hands-on experience in querying and analyzing a real-world food delivery dataset using SQL. Through various SQL operations like joins, aggregations, filtering, and grouping, key insights were derived on customer behavior, restaurant performance, and product demand. The structured analysis enabled us to understand business operations better and demonstrated how SQL can be a powerful tool for driving data-driven decisions in the e-commerce and food delivery domain.





The Green Thumb
Conservation Society

July, 2025



THANK YOU