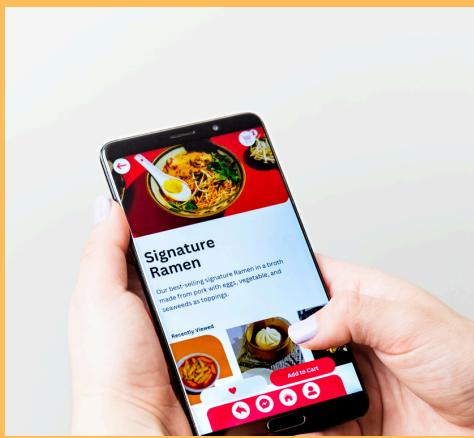


Online Food Delivery SQL Project

DOMAIN: E-COMMERCE

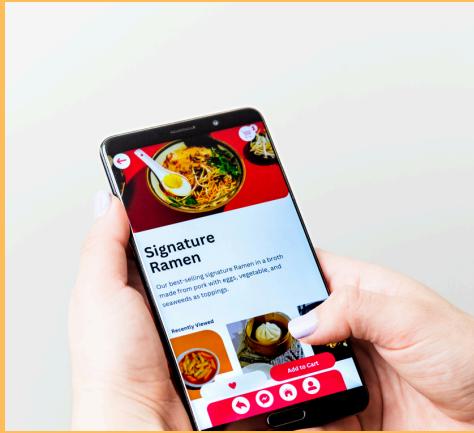
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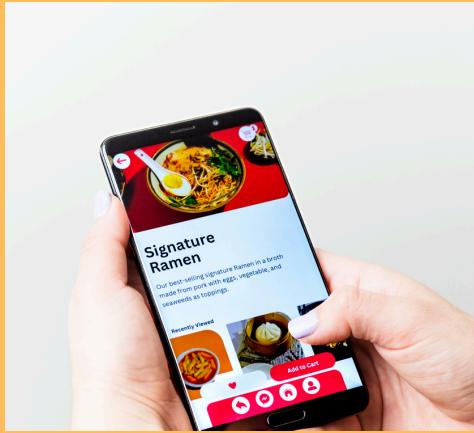
- 1. Objective**
- 2. Data Description**
- 3. ER diagram**
- 4. Primary key, Foreign keys Relationships**
- 5. Queries with results**
- 6. Visualizations**
- 7. Conclusion**



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Objective

This project is based on an Online Food Delivery System. I designed the database schema (ER diagrams, tables, data insertion), wrote SQL queries (filters, joins, subqueries, aggregation), and derived business insights such as revenue trends, top customers, and popular food items. It showcases how raw data can be transformed into actionable insights using SQL.



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Dataset Description

Name: Online Food Delivery Dataset

Number of Tables: 5

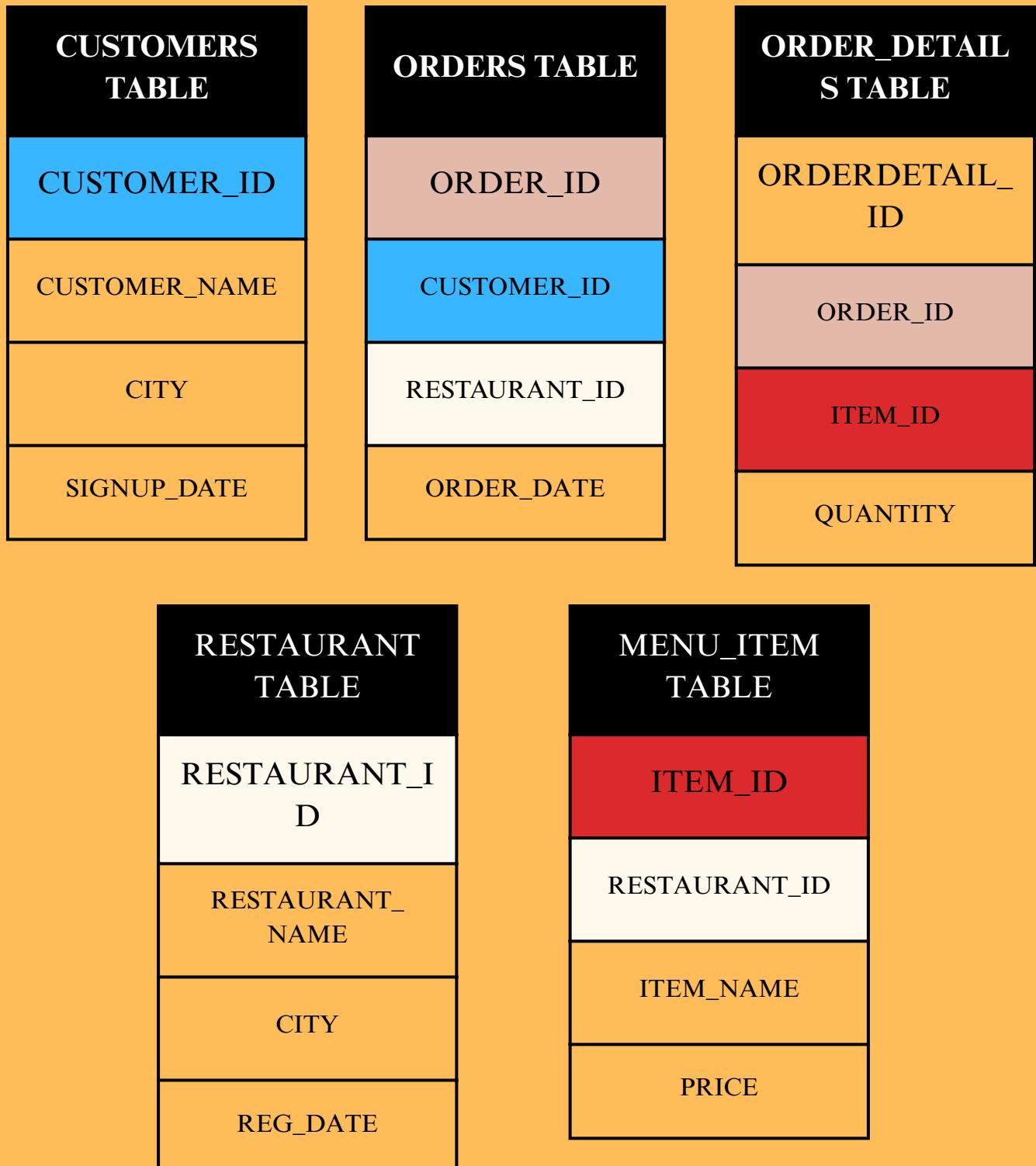
Total Rows: Approx. 800

Table Name	Description
customers	Customer details like ID, name, city, Signup_date
orders	Order-level details like date, amount
order_details	Line-item data for each order(order_id,item_id,quantity,Orderdetail_id)
products	Product catalog (name, category, price)
menu_item	item_id,restaurant_id,item_name,price



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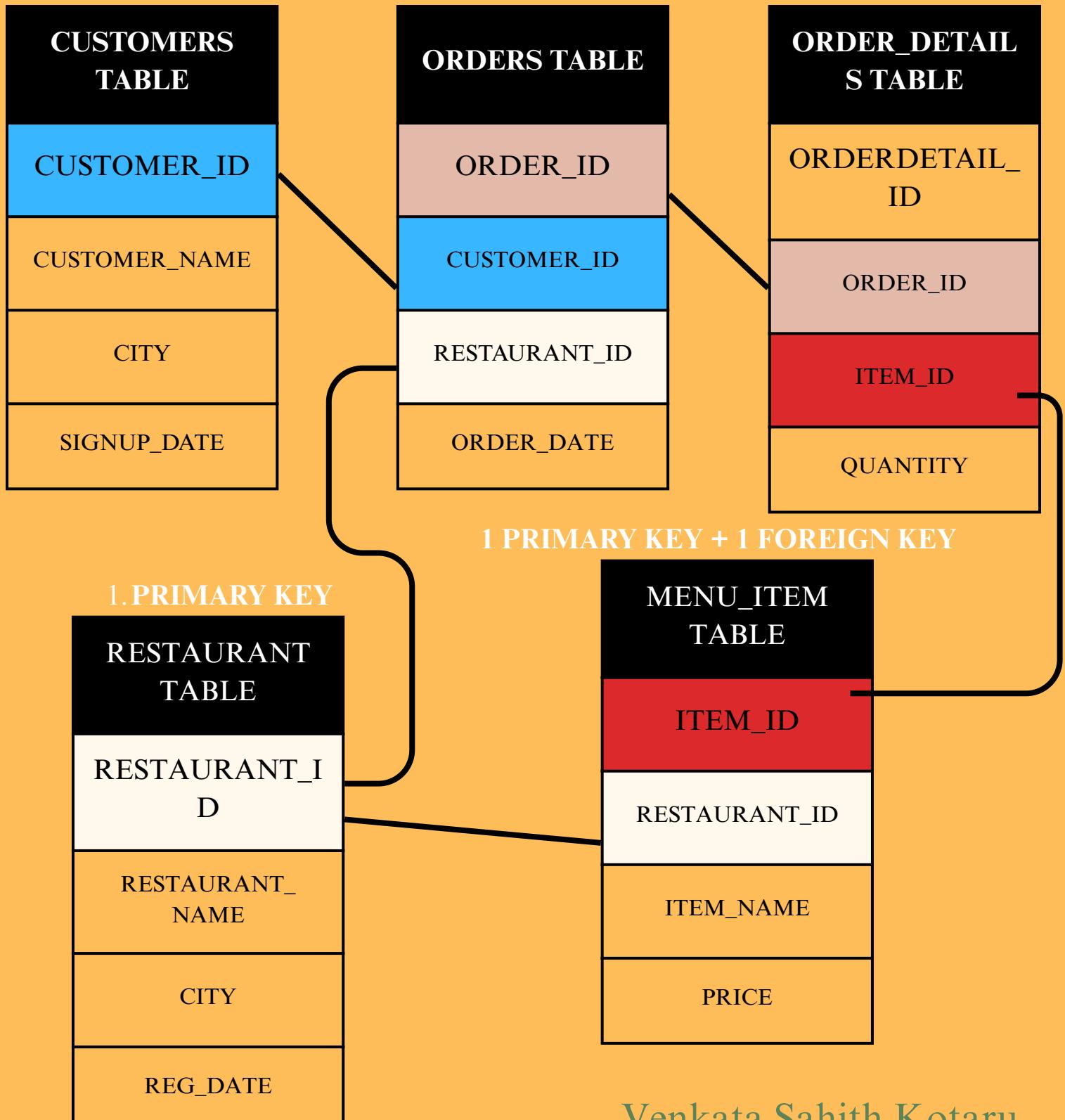
ER Diagram

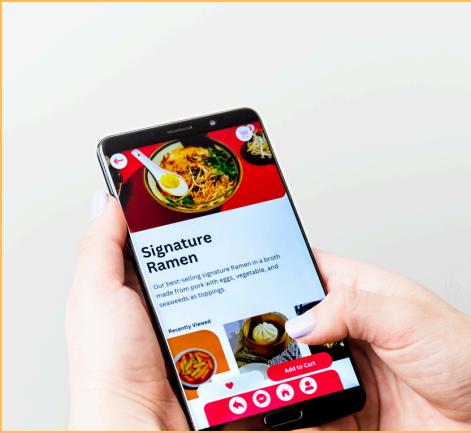


Primary key, Foreign keys Relationships



1. PRIMARY KEY





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Q1: Total Orders per City

```
select r.city,count(o.order_id) as orders  
from restaurants r join orders o  
on r.restaurant_id=o.restaurant_id  
group by r.city  
order by orders desc;
```

Result Grid | Filter Row

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



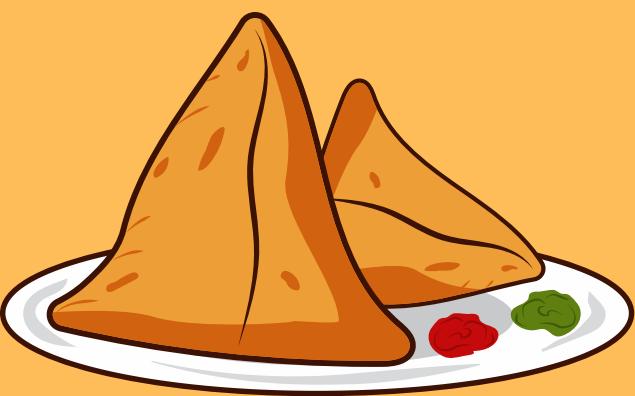
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Q2:Revenue generated by each food item

```
select m.item_name,
round(sum(m.price*o.quantity),2)
as revenue from menu_item m
join order_details o
on m.item_id=o.item_id
group by m.item_name
order by revenue desc;
```

	item_name	revenue
▶	Aloo Paratha	232477.77
	Fish Curry	212755.37
	Hakka Noodles	205411.68
	Momos	203851.14
	Paneer Tikka	185606.53
	Paneer Butter Masala	168535.39
	Gulab Jamun	135449.46
	Samosa Chaat	133409.96
	Masala Dosa	129444.27
	Dal Tadka	126507.73
	Fried Rice	125895.68
	Chicken 65	125284.06
	Idli Sambar	113387.6
	Veg Biryani	109546.46
	Chicken Biryani	105445.2
	Pav Bhaji	104984.73
	Rasgulla	103828.15
	Kadai Paneer	97429.15
	Chole Bhature	91234.41
	Butter Chicken	90736.34





Q3:Top 5 spending customers

```
SELECT c.customer_name,
round(SUM(od.quantity * m.price),2)
AS total_spent FROM customers c
JOIN orders o
    ON c.customer_id = o.customer_id
JOIN order_details od
    ON o.order_id = od.order_id
JOIN menu_item m
    ON od.item_id = m.item_id
GROUP BY c.customer_name
ORDER BY total_spent DESC
LIMIT 5;
```

	customer_name	total_spent
▶	Muhammad Patel	73660.54
	Vihaan Nair	65338.92
	Vihaan Patel	58678.82
	Arjun Mehta	58111.17
	Sai Verma	57655.31





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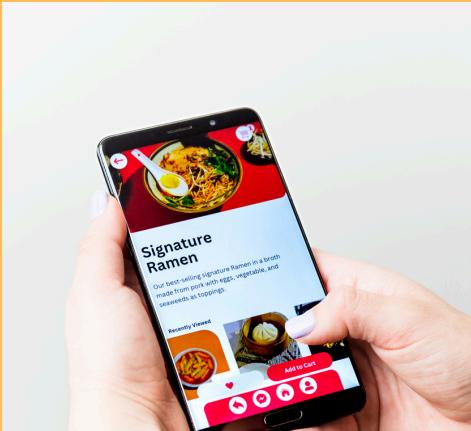
Q4:Restaurant wise order count

```
select r.rest_name,count(o.order_id)
as order_count from
restaurants r join orders o
on r.restaurant_id=o.restaurant_id
group by r.rest_name
order by order_count desc;
```

	rest_name	order_count
▶	Golden Garden	90
	Spice Palace	71
	Tasty Bistro	68
	Big Table	66
	Flavors Corner	61
	Happy Corner	59
	Royal Garden	59
	Flavors Kitchen	58
	Little Palace	56
	Fresh Palace	56
	Fresh Hub	56
	Big Diner	54
	Golden Table	47
	Happy Diner	39
	Fresh Garden	38
	Little Corner	38
	Tasty Palace	37
	Royal Grill	37
	Spice Kitchen	37
	Happy Garden	33
	Golden Bistro	32
	Happy Grill	32



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Q5: Average order value by city

```
select r.city,round(avg(o.order_id),2)
as avg_order_value from
restaurants r join orders o
on r.restaurant_id=o.restaurant_id
group by r.city
order by avg_order_value desc;
```

	city	avg_order_value
▶	Delhi	800.17
	Bangalore	794.49
	Pune	774.25
	Surat	760.19
	Jaipur	755.88
	Ahmedabad	740.41
	Hyderabad	722.51
	Kolkata	714.92
	Mumbai	702.72
	Chennai	696.43



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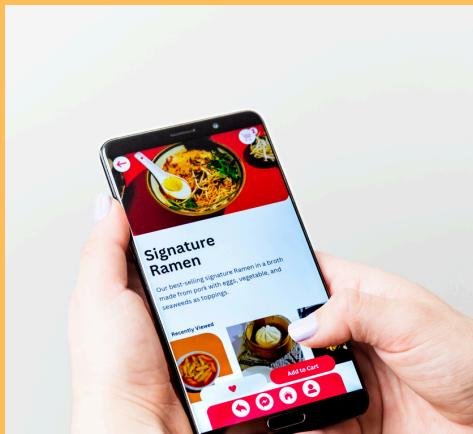
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Q6:Monthly order trends

```
select month(order_date) as order_month,  
monthname(order_date) as ordr_month,  
count(order_id) as total_orders  
from orders group by  
monthname(order_date),  
month(order_date) order by  
order_month;
```

	order_month	ordr_month	total_orders
1	1	January	145
2	2	February	137
3	3	March	143
4	4	April	142
5	5	May	152
6	6	June	147
7	7	July	126
8	8	August	107
9	9	September	107
10	10	October	105
11	11	November	100
12	12	December	89





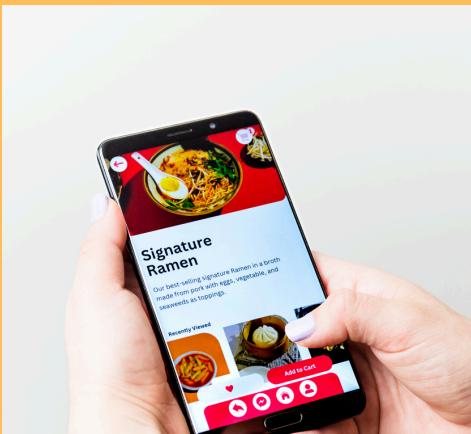
Q7: Top 3 cities by revenue

```
select c.city,round(sum(m.price*od.quantity),2)
as revenue from customers c
join orders o on c.customer_id=o.customer_id
join order_details od on o.order_id=od.order_id
join menu_item m on od.item_id=m.item_id
group by c.city
order by revenue desc limit 3;
```

Result Grid | Filter Row

	city	revenue
▶	Chennai	349264.89
	Pune	305873.68
	Bangalore	299747.65





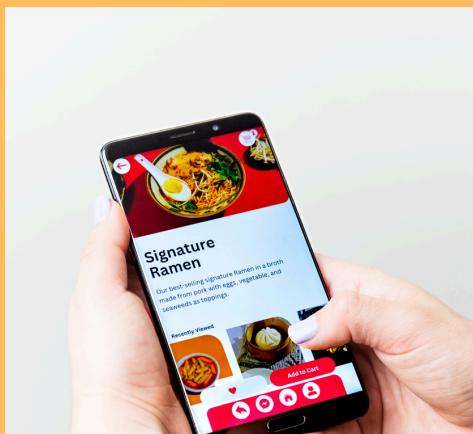
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Q8:number of unique customers per city

```
select city,count(distinct customer_id)  
as unique_customers from customers  
group by city  
order by unique_customers desc;
```

	city	unique_customers
▶	Ahmedabad	58
	Chennai	56
	Kolkata	56
	Mumbai	54
	Pune	50
	Delhi	49
	Surat	48
	Bangalore	47
	Hyderabad	43
	Jaipur	39





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Q9: Most frequently ordered items

```
select m.item_name, count(o.order_id)
as num_of_orders from
menu_item m join order_details o
on m.item_id=o.item_id
group by m.item_name
order by num_of_orders desc;
```

item_name	num_of_orders
Fish Curry	205
Momos	197
Aloo Paratha	188
Paneer Tikka	183
Hakka Noodles	169
Paneer Butter Masala	162
Gulab Jamun	161
Masala Dosa	136
Fried Rice	136
Chicken Biryani	128
Dal Tadka	128
Idli Sambar	114
Pav Bhaji	113
Rasgulla	107
Veg Biryani	104
Chole Bhature	102
Samosa Chaat	98
Chicken 65	93
Butter Chicken	89
Kadai Paneer	87



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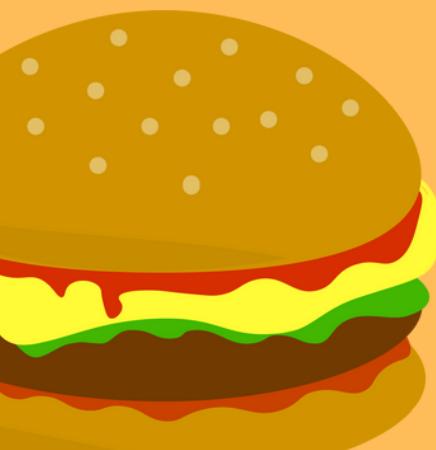


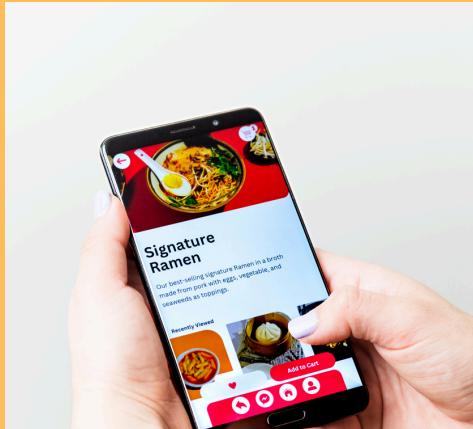
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Q10: restaurants with low order counts(<30)

```
select r.rest_name, count(distinct o.order_id)  
as order_counts from restaurants r  
join orders o on  
r.restaurant_id=o.restaurant_id  
group by r.rest_name  
having order_counts < 30  
order by order_counts desc;
```

	rest_name	order_counts
▶	Big Corner	26
	Flavors Diner	26
	Flavors Table	26
	Golden Kitchen	26
	Royal Hub	26
	Royal Corner	24
	Urban Corner	24
	Flavors Palace	22
	Happy Kitchen	22
	Royal Kitchen	19
	Golden Diner	14

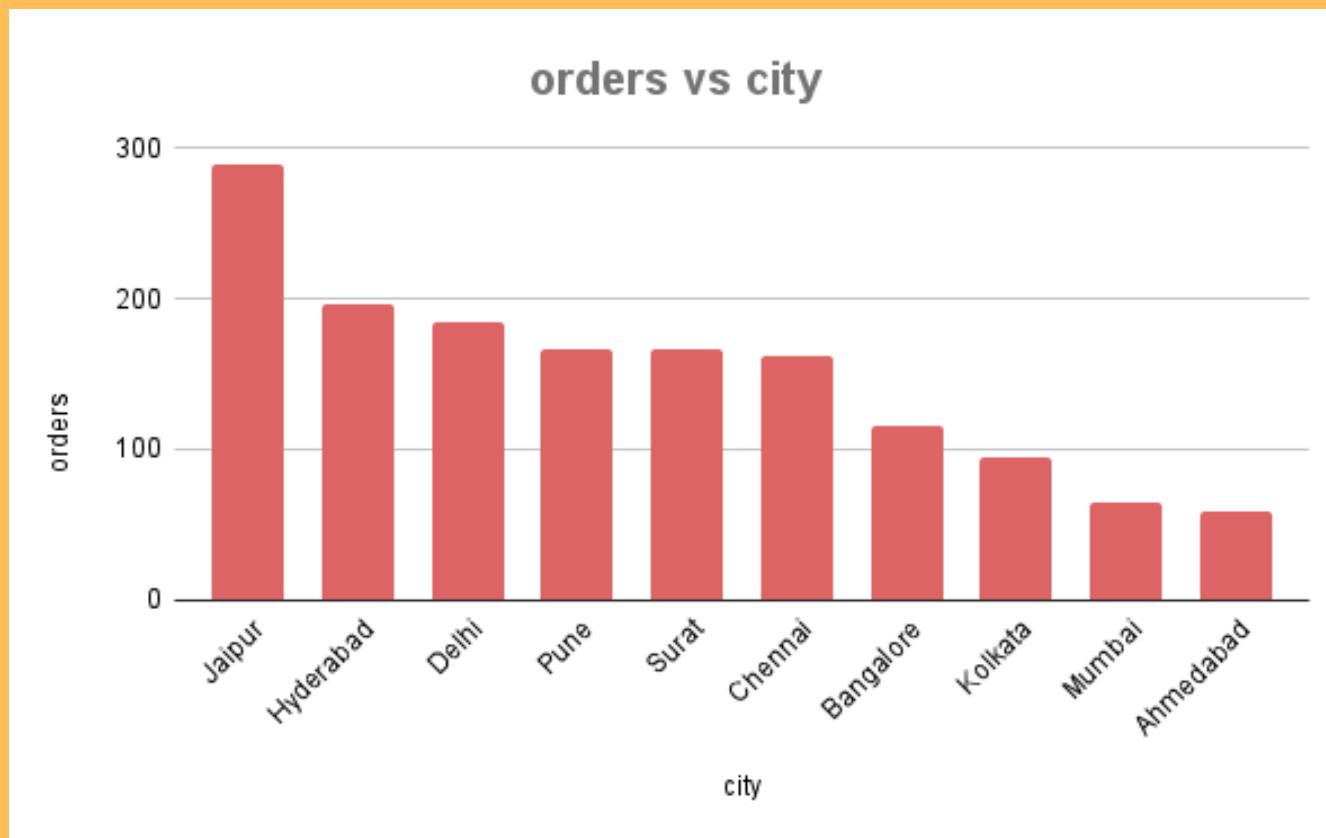




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Visualization & Insights

Q1: Total Orders per City



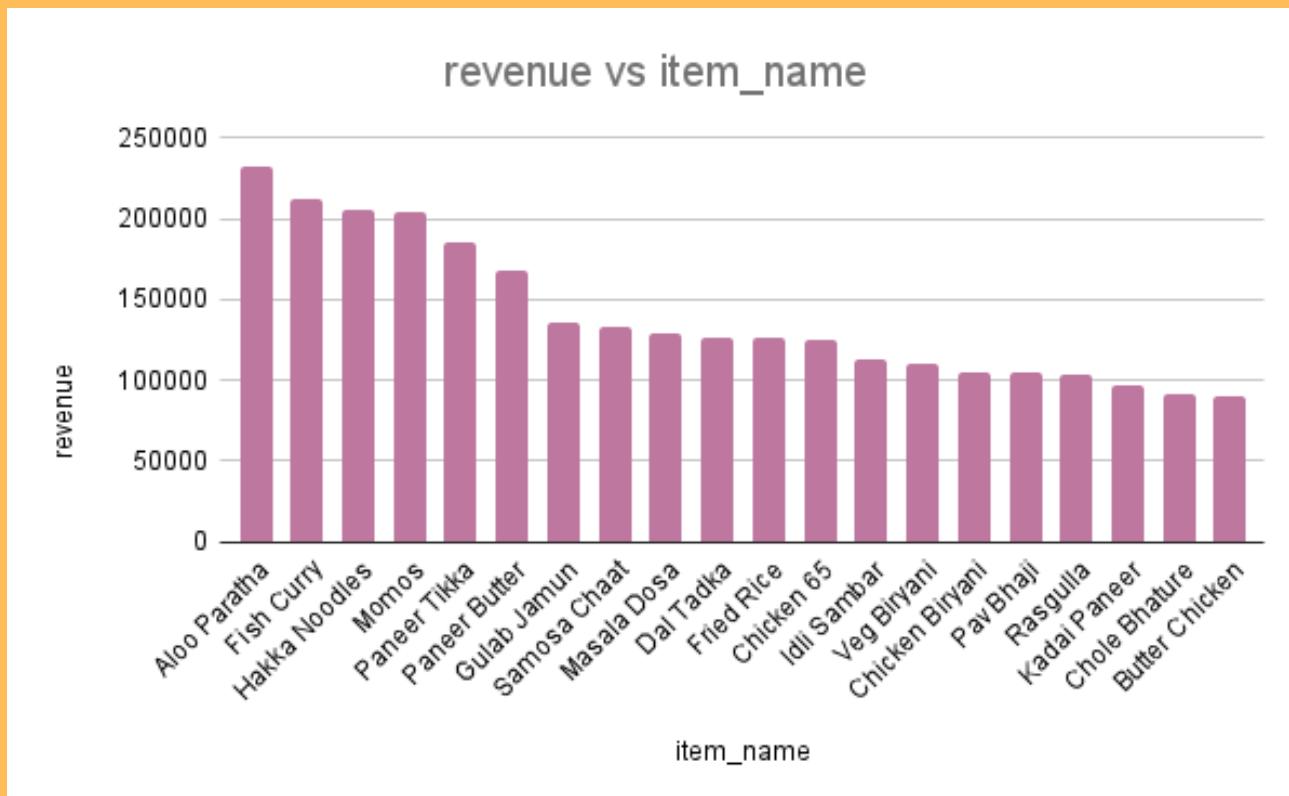
- Jaipur has the highest number of orders.
- Hyderabad and Delhi also have high orders.
- Smaller cities like Jaipur and Surat perform better than metros like Mumbai and Bangalore



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Q2:Revenue generated by each food item

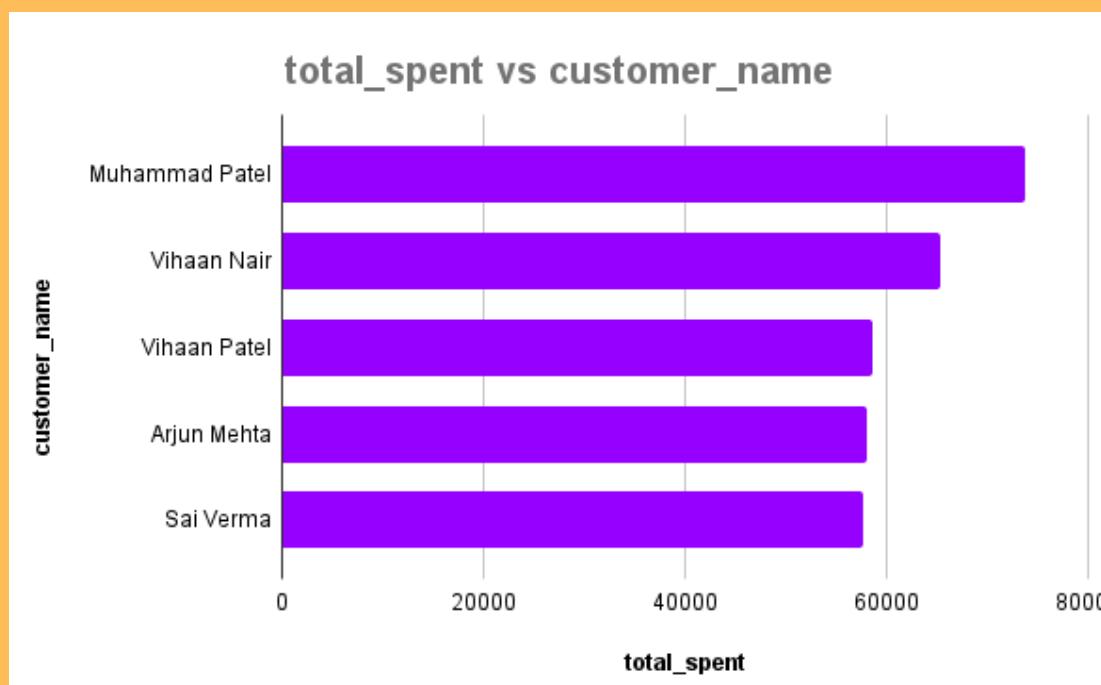


- **Aloo Paratha generated the highest revenue among all food items.**
- **Items like Fried Rice, Hakka Noodles, and Paneer Tikka also contributed significantly to revenue.**
- **Dishes like Butter Chicken, Chole Bhature, and Kadhi Pakoda generated the lowest revenue.**



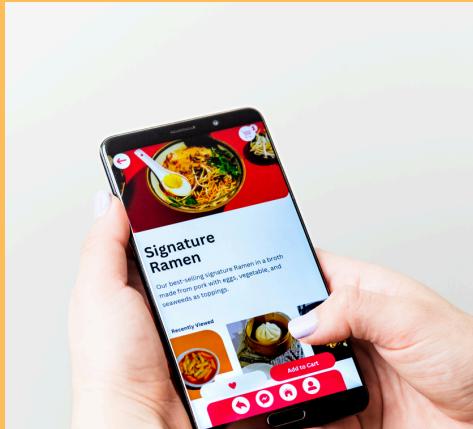


Q3:Top 5 spending customers



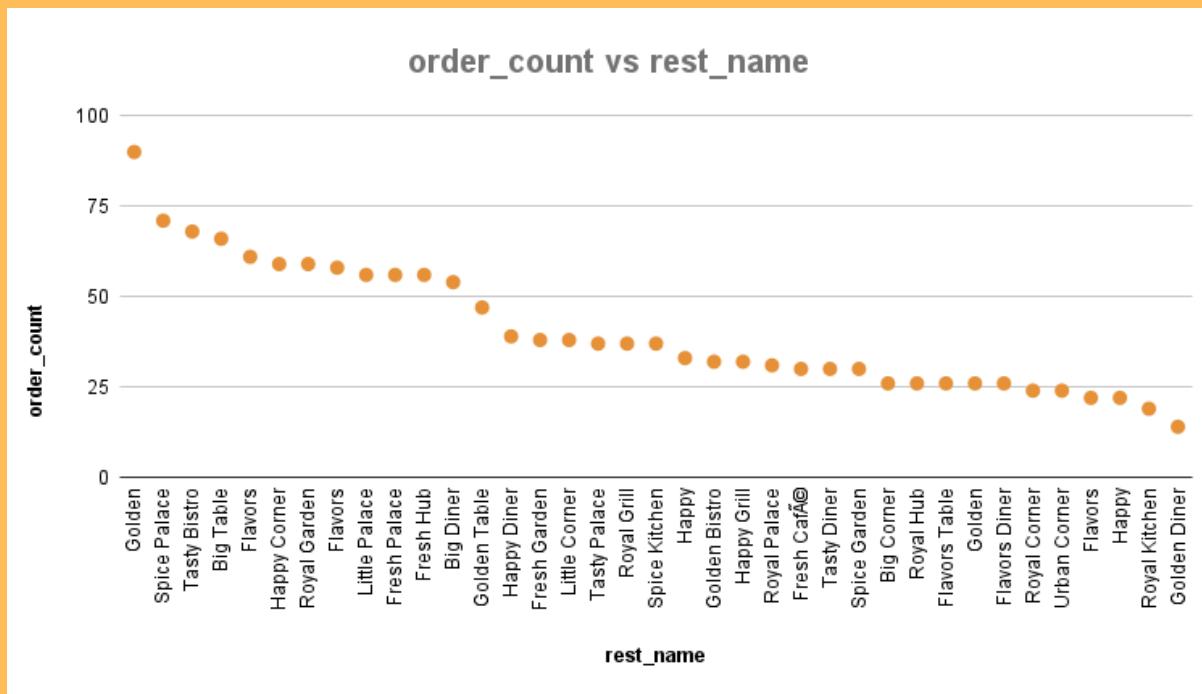
- **Muhammad Patel is the highest spending customer with the maximum total spent.**
- **Vihaan Nair and Vihaan Patel also contribute significantly to overall revenue.**
- **Ajum Mehta and Sai Verma are consistent high spenders, making them valuable loyal customers.**





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Q4:Restaurant wise order count



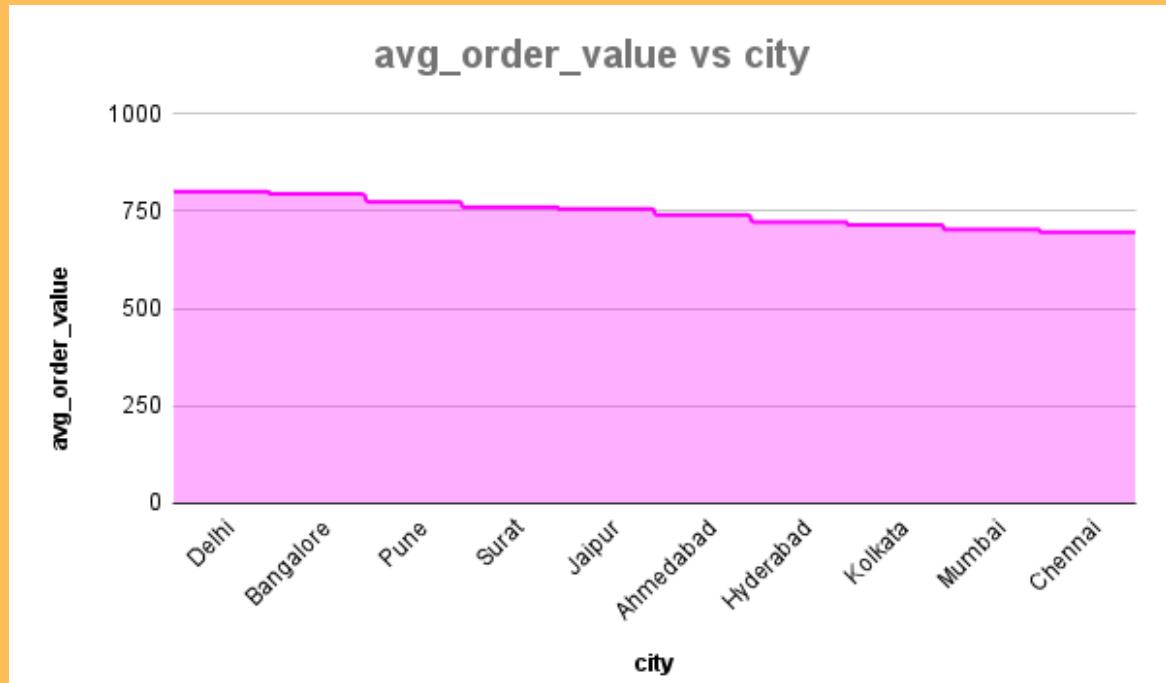
- **Golden Fiesta has the most orders.**
- **Spice Garden and Tandoori Tales also have good orders.**
- **Royal Kitchen and Golden Diner have the least orders.**





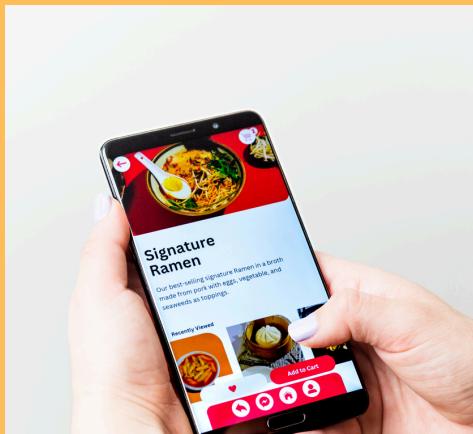
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Q5: Average order value by city



- **Delhi has the highest average order value.**
- **Bangalore, Pune, and Surat also show good average values.**
- **Chennai and Mumbai have the lowest average order value.**





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Q6:Monthly order trends

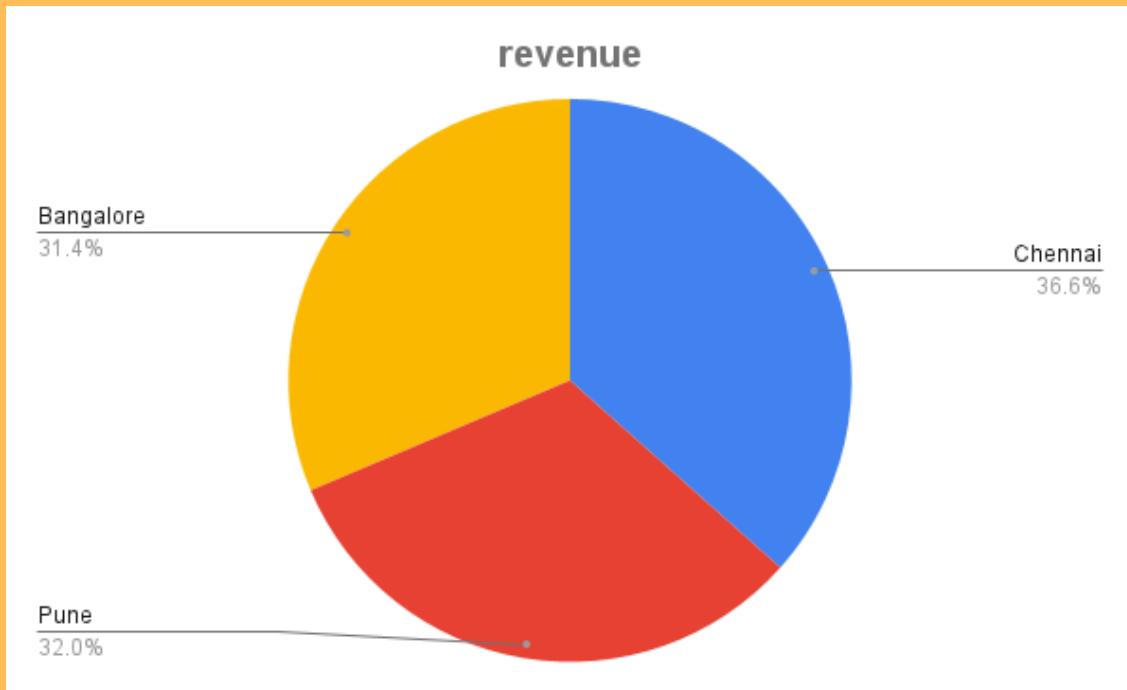


- Orders were highest around May–June.
- From July onwards, there is a steady decline in orders.
- December recorded the lowest number of orders in the year.



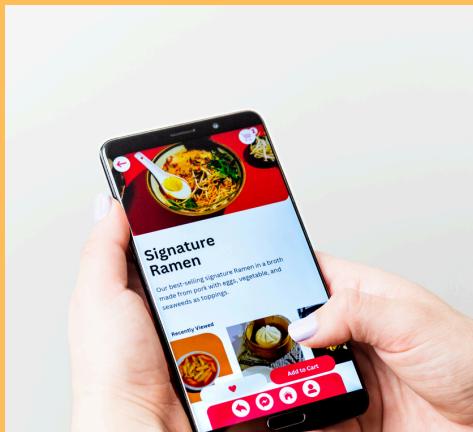


Q7: Top 3 cities by revenue



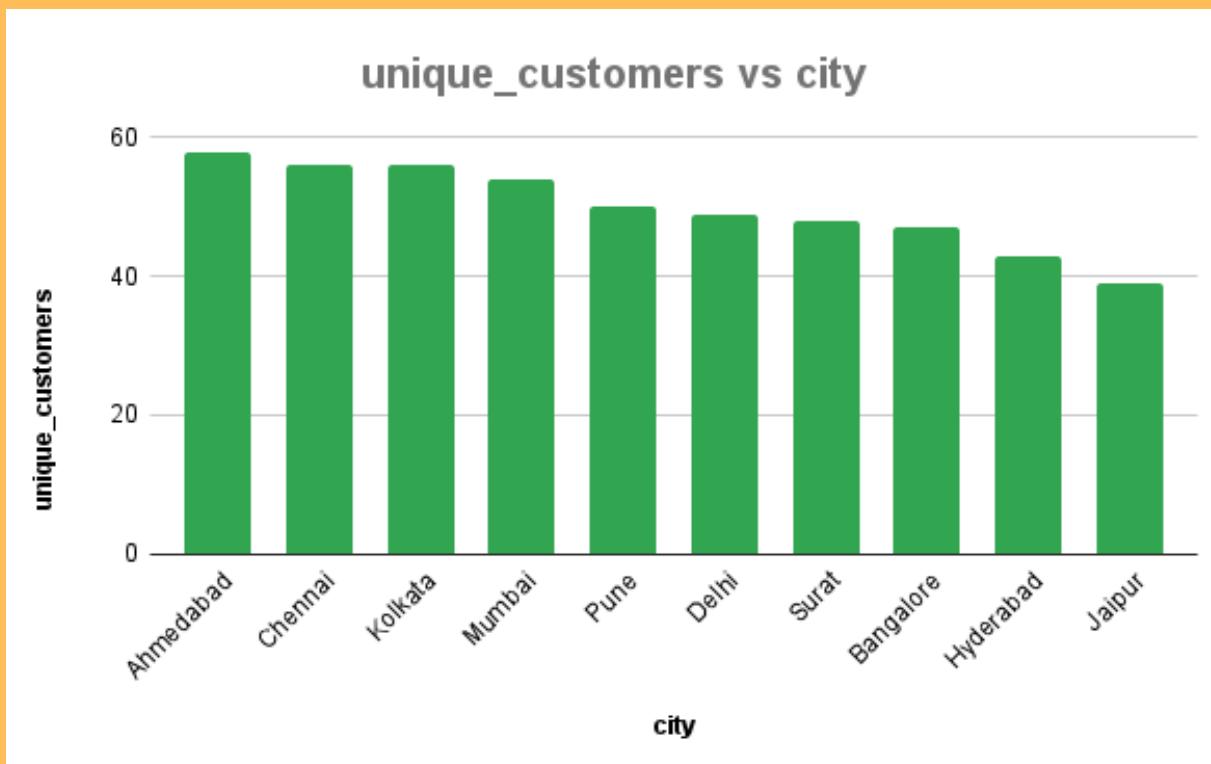
- **Chennai contributes the highest revenue (36.6%).**
- **Pune is the second highest with 32%.**
- **Bangalore is close behind at 31.4%, showing strong performance.**





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Q8:number of unique customers per city



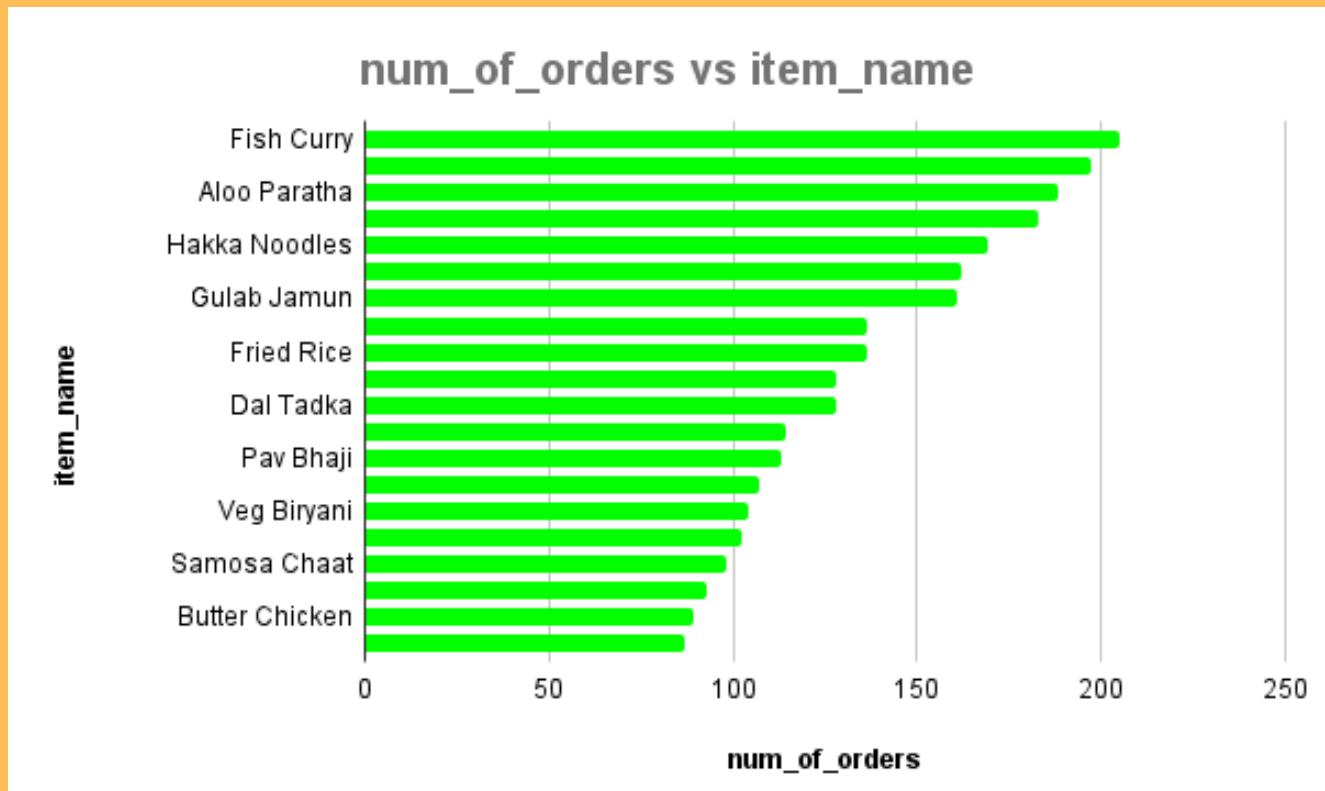
- Ahmedabad has the highest number of unique customers.
- Chennai and Kolkata also show strong customer presence.
- Jaipur and Hyderabad have the lowest unique customers among all cities.





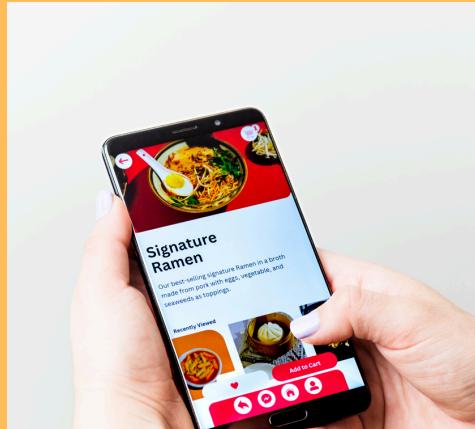
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Q9: Most frequently ordered items



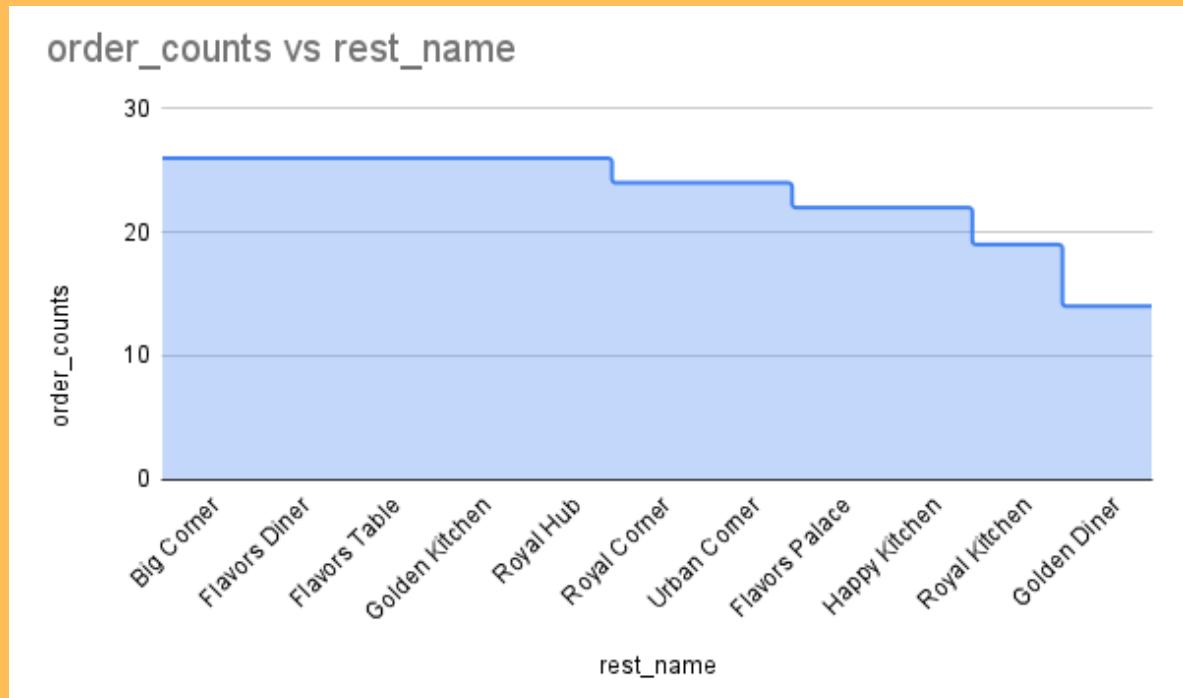
- **Fish Curry is the most ordered item, followed by Aloo Paratha and Hakka Noodles.**
- **Gulab Jamun and Fried Rice are also among the popular mid-range choices.**
- **Items like Butter Chicken and Samosa Chaat have the lowest number of orders.**





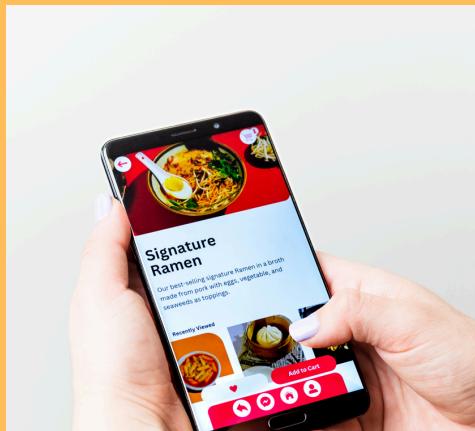
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Q10: restaurants with low order counts(<30)



- Restaurants like big corner, Flavours Diner, Flavors Table, Golden Kitchen, Royal Hub are having highest and same number of orders
- Golden Diner has least number of orders
- Customers are not preferring Golden Diner more





Conclusion

Working on the Online Food Delivery System project gave me end-to-end exposure to SQL — from designing ER diagrams and creating databases to writing queries for joins, aggregations, subqueries, and filters. I explored how data is stored, connected, and retrieved to answer real-world business questions like top-performing restaurants, customer behavior, revenue by city, and order trends.

To wrap up, I exported the query results into Google Sheets and built visualizations that highlighted the insights in a clear and interactive way. This project not only strengthened my SQL skills but also improved my ability to think like a data professional, connecting raw data with business strategy and decision-making.





THANK YOU

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