



Online Food Delivery SQL Project

DOMAIN: E-COMMERCE

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July,2025

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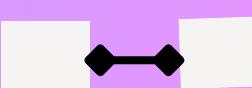
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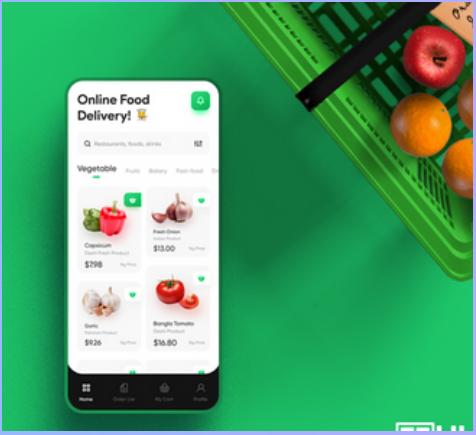


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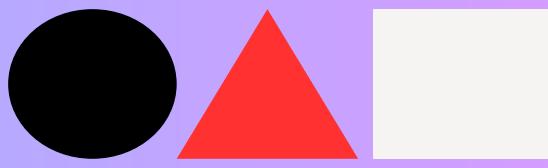
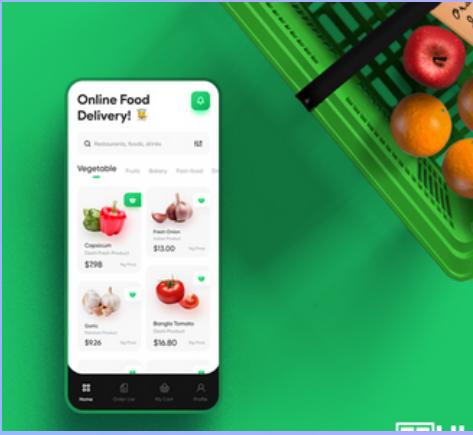




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Objective

The objective of this project is to analyze a real-world dataset using SQL to extract meaningful insights through the application of summary statistics, relational operations, and data filtering techniques. The results of these queries will be visualized to support data-driven decision-making and provide a comprehensive understanding of the underlying data patterns.



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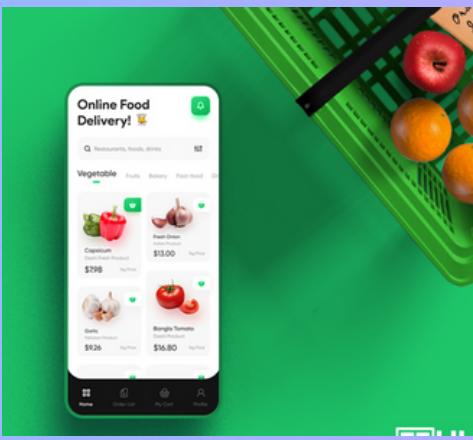
Dataset Description

Name: Online Food Delivery Dataset

Number of Tables: 5

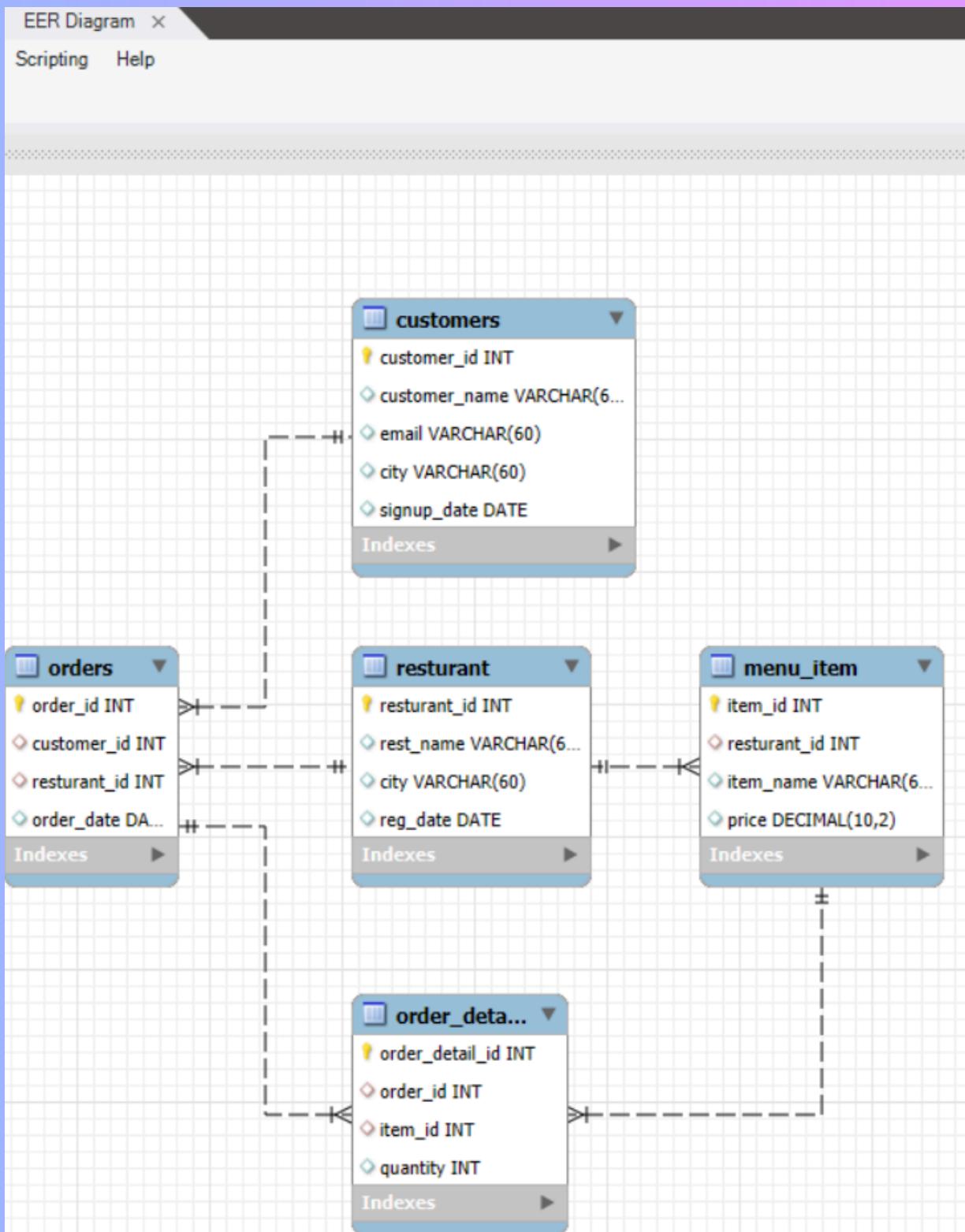
Total Rows: Approx. 5000

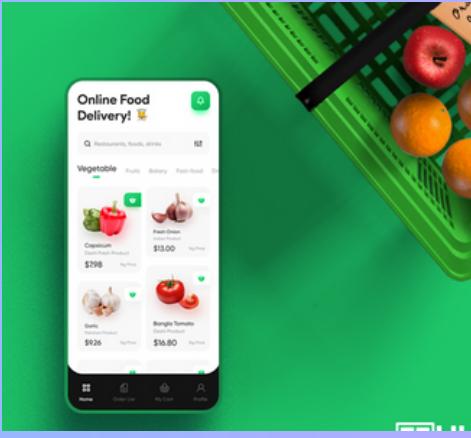
Table Name	Description
resturant	resturant_id,resturant_name,city,registration_id
customers	Customer details like ID, name, city, email, signup date
orders	Order_id,resturant_id,customer_id,orderdate
order_details	order_detail_id,order_id,item_id,quantity
menu_item	item_id,resturant_id,item_name,price



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ER DIAGRAM



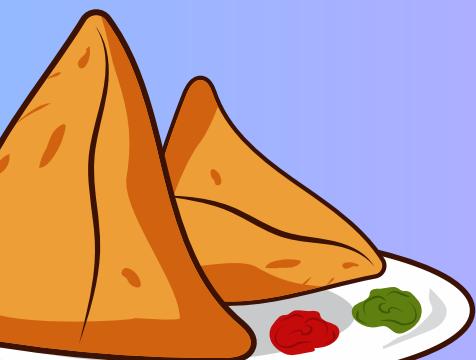


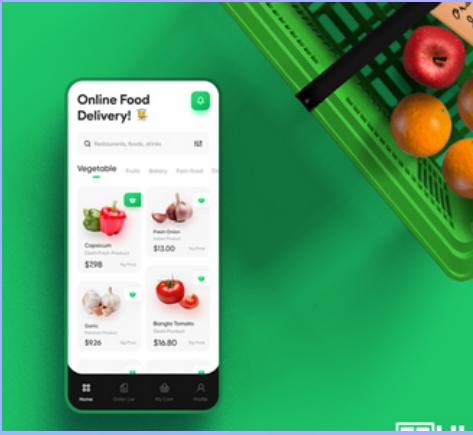
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Q1: Total Orders by City

```
--Total orders per city
SELECT r.city,COUNT(o.order_id)AS total_order
FROM orders o
JOIN resturant r
ON o.restaurant_id=r.restaurant_id
GROUP BY city
ORDER BY total_order DESC;
```

city	total_order
Jaipur	290
Hyderabad	197
Delhi	184
Pune	166
Surat	166
Chennai	162



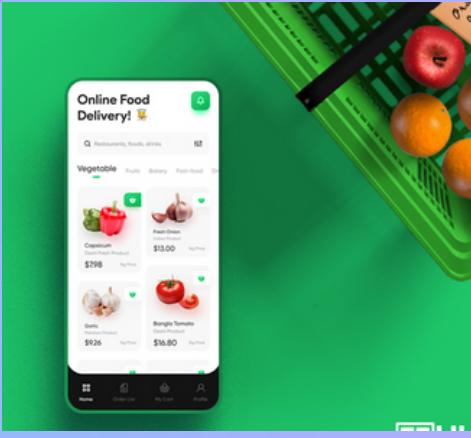


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Q2: Total Revenue by items

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

item_name	total_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



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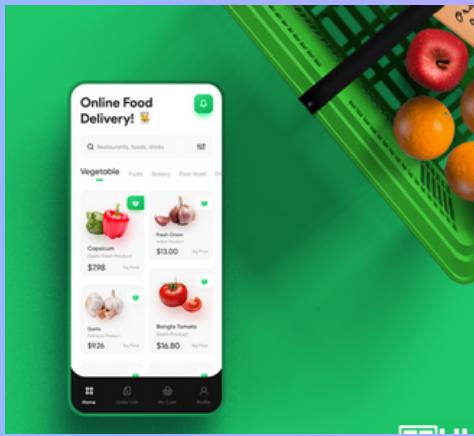
Q3: Top 5 spending customers

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

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



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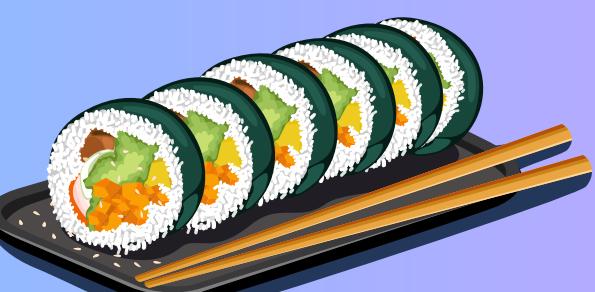


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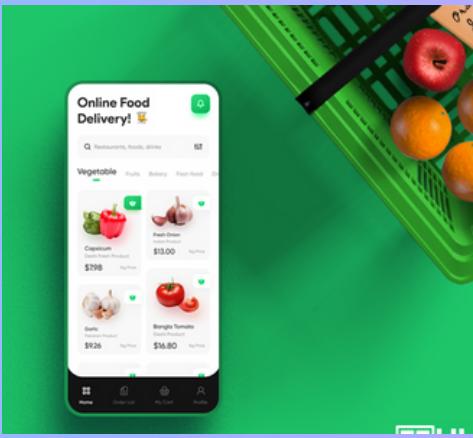
Q4: Total order count restaurant wise

```
SELECT r.rest_name,COUNT(o.order_id)AS order_count  
FROM orders o  
JOIN resturant r  
ON o.restaurant_id=r.restaurant_id  
GROUP BY 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



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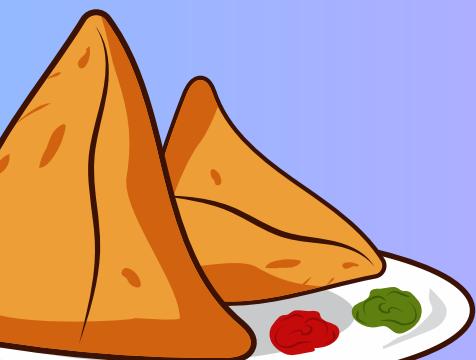


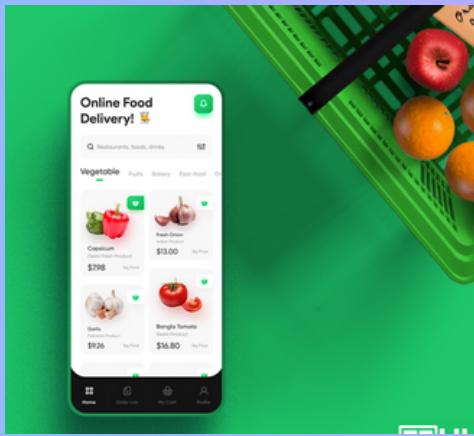
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Q5: Average Total Revenue by city

```
SELECT r.city, AVG(m.price*od.quantity) AS avg_total_revenue
FROM order_details od
JOIN menu_item m
ON od.item_id=m.item_id
JOIN resturant r
ON m.restaurant_id=r.restaurant_id
GROUP BY r.city
ORDER BY avg_total_revenue DESC;
```

city	avg_total_revenue
Mumbai	1273.451650
Hyderabad	1120.969175
Pune	1120.763757
Bangalore	1063.273804
Jaipur	1030.201448
Delhi	1025.211264





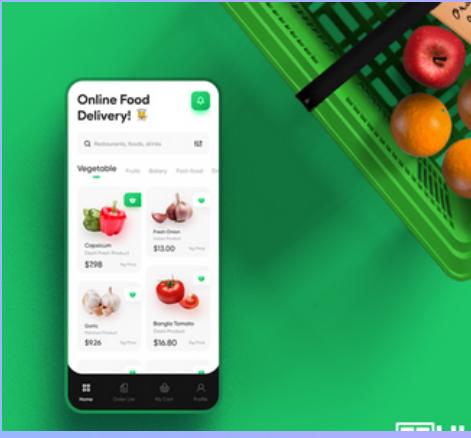
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Q6: Order trend by months

```
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;
```

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
11	November	100
12	December	89





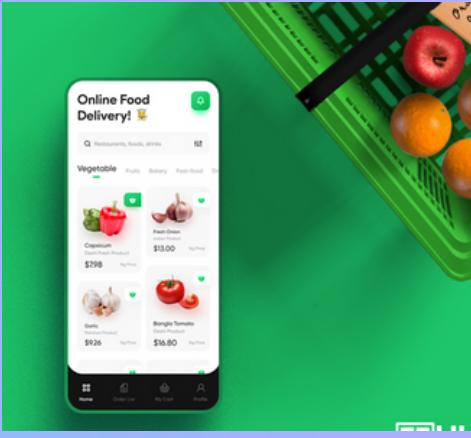
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Q7: Top 3 city by revenue

```
SELECT c.city,SUM(m.price*od.quantity) AS total_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 total_revenue DESC  
LIMIT 3;
```

city	total_revenue
Chennai	349264.89
Pune	305873.68
Bangalore	299747.65





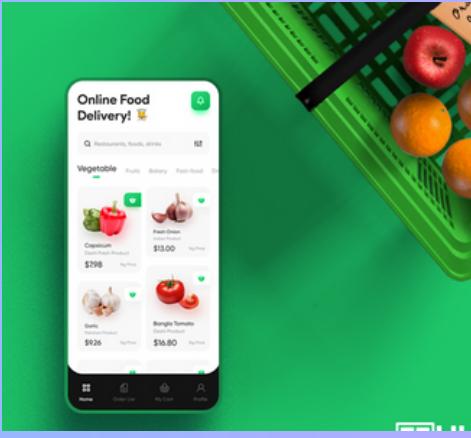
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Q8: Number of unique customer by city

```
SELECT city, COUNT(DISTINCT customer_id) AS number_of_customer  
FROM customers  
GROUP BY city  
ORDER BY number_of_customer DESC;
```

city	number_of_customer
Ahmedabad	58
Chennai	56
Kolkata	56
Mumbai	54
Pune	50
Delhi	49





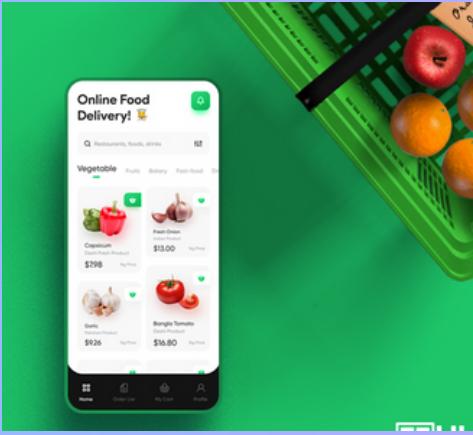
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Q9:Most frequently ordered item

```
SELECT m.item_name,SUM(od.order_id)AS total_orders  
FROM menu_item m  
JOIN order_details od  
ON m.item_id=od.item_id  
GROUP BY m.item_name  
ORDER BY total_orders DESC;
```

item_name	total_orders
Momos	152606
Fish Curry	150502
Aloo Paratha	143534
Paneer Tikka	138045
Hakka Noodles	133697
Paneer Butter Masala	123406



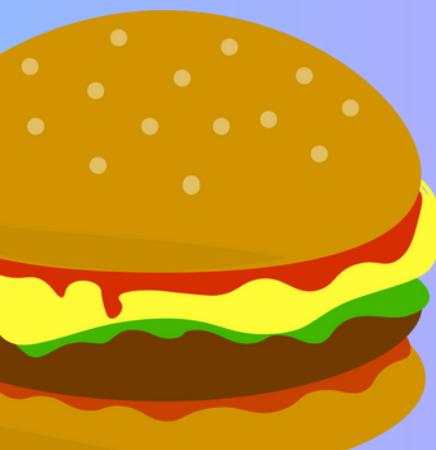


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Q10:Restaurant with less than 30 orders

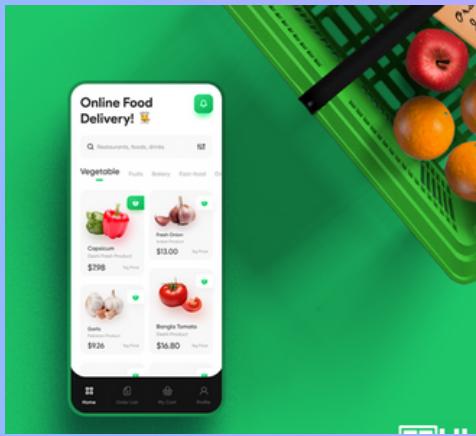
```
SELECT r.rest_name,COUNT(o.order_id) AS orders_count
FROM resturant r
JOIN orders o
ON r.restaurant_id=o.restaurant_id
GROUP BY rest_name
HAVING orders_count < 30
ORDER BY orders_count ASC;
```

rest_name	orders_count
Golden Diner	14
Royal Kitchen	19
Flavors Palace	22
Happy Kitchen	22
Royal Corner	24
Urban Corner	24



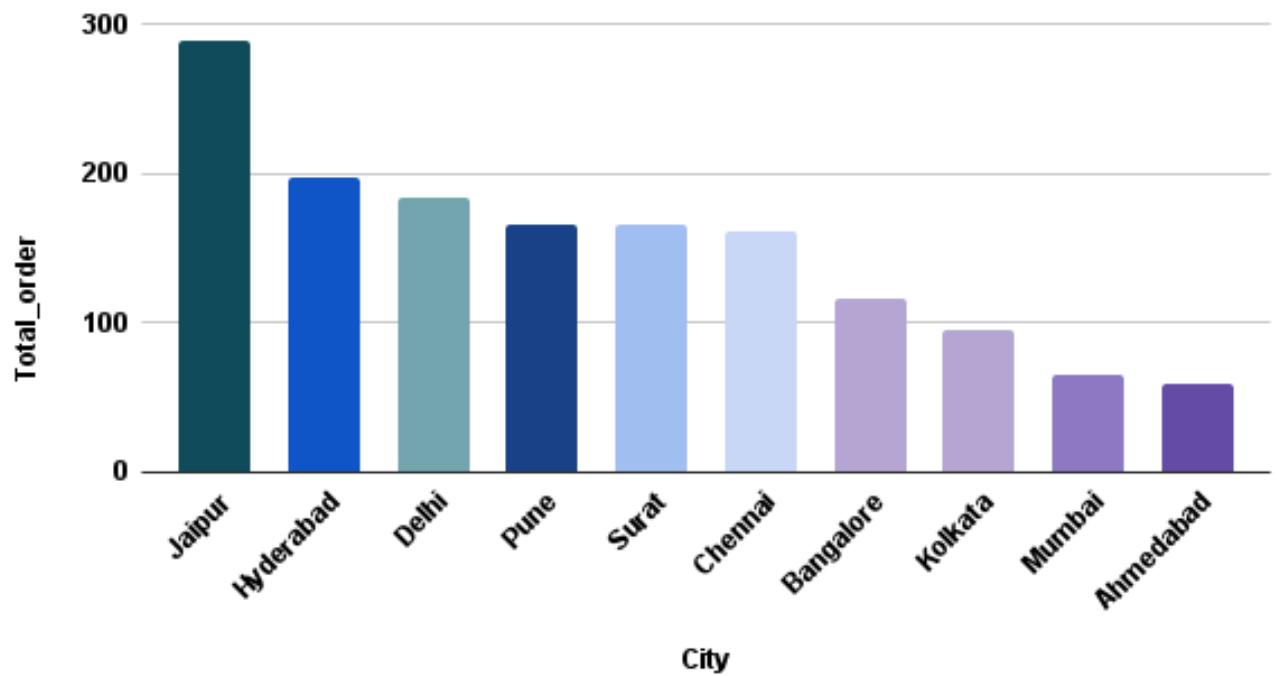


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Visualization & Insights

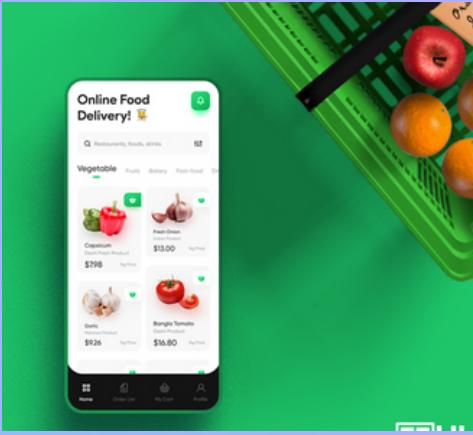
Total_order vs. city



JAIPUR, HYDRABAD, DELHI have the highest number of food orders compared to other cities.
active markets,
focus-marketing strategies,
expansion strategies, improve operations in other cities

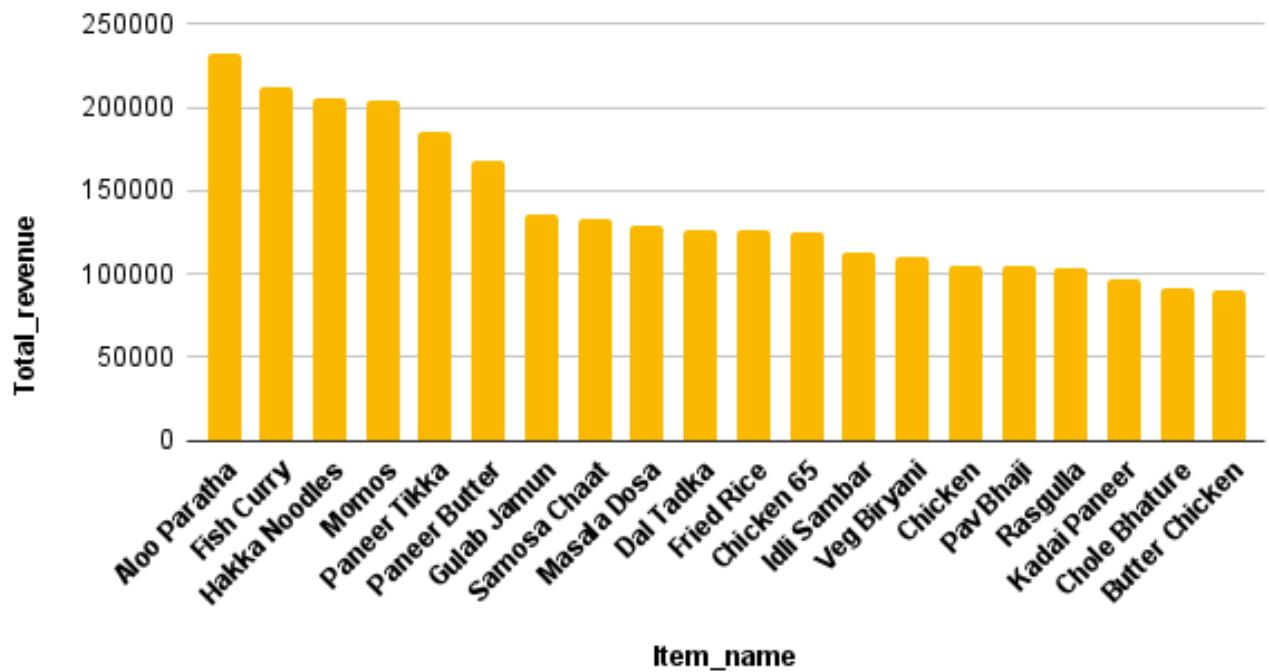


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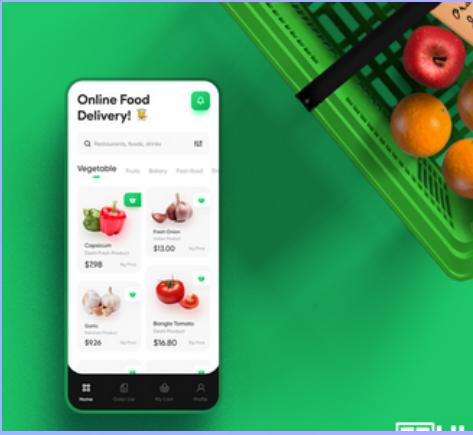
Total revenue VS Item



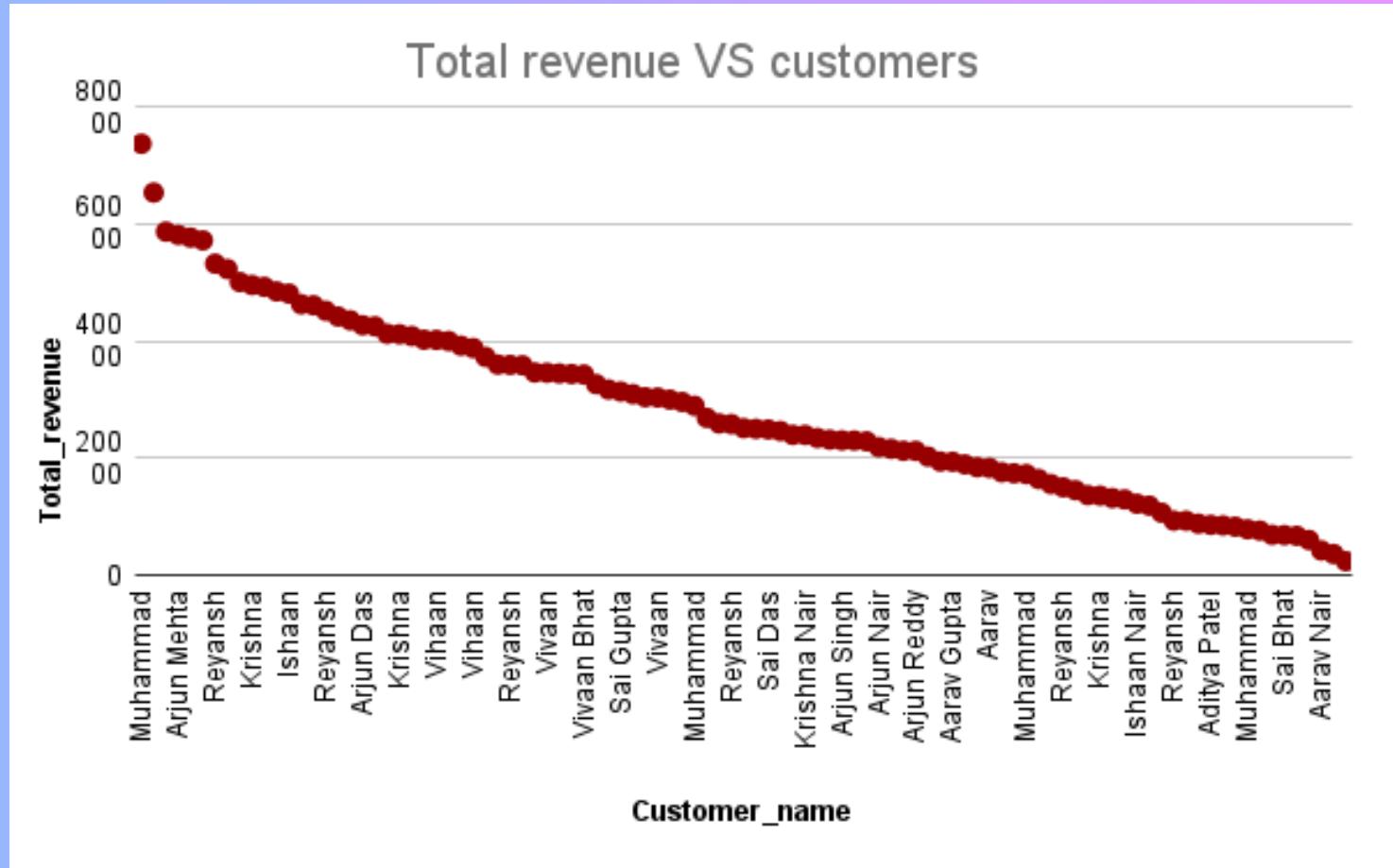
**ALOO PARATHA,FISH
CURRY,HAKKA NOODLES the top 3
food item generating revenue
promote it more prominently on app
ensure consistent availability and faster
delivery**



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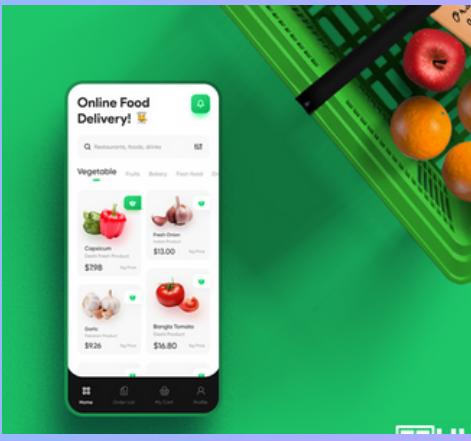
MUHAMMAD PATEL, VIHAAN NAIR,VIHAAN PATEL are the customers who spends more than the rest

Get a feedback from them and get to know the reason behind their trust in this platform list and track their favorite restaurant and the food ordered by them and find the pattern and crack it's popularity

Try to implement those readings in the loss making businesses to attract customers.

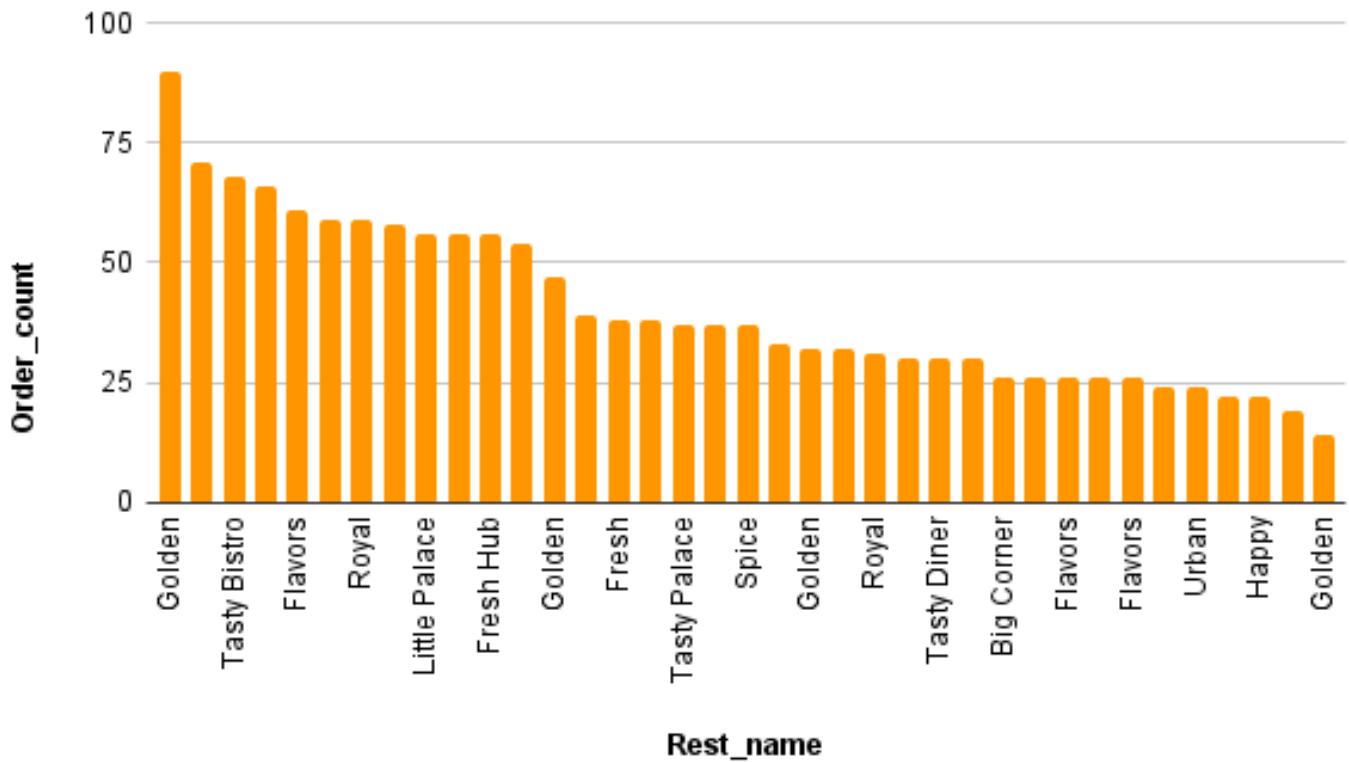
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ORDER_COUNT vs RESTURANT



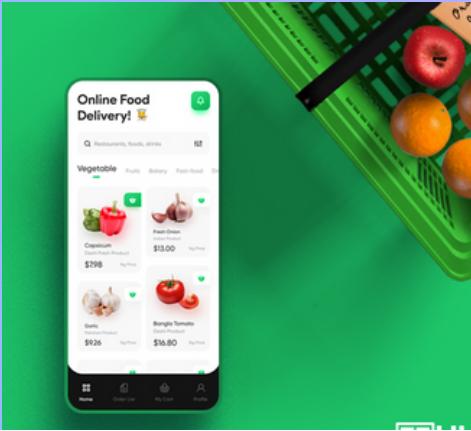
GOLDEN GARDEN, SPICE PALACE, TASTY BISTRO are the top restaurant where number of orders are more

to the underperformers in this list it is suggested to give discount and combo offers to get more order and study the business approach of the top runner in this list and apply those to improve the order count

To ensure the top runner to remain in this game as toppers try to follow trendy ideas to increase the frequency of order

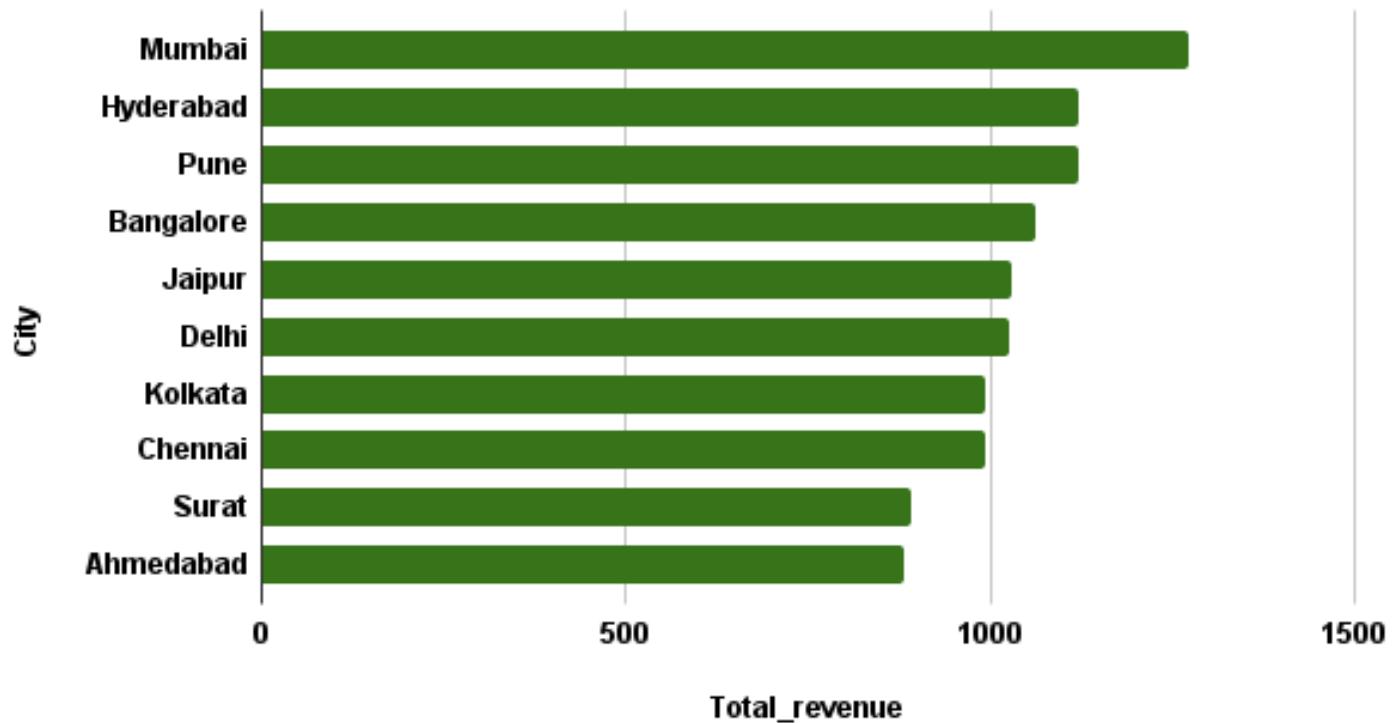
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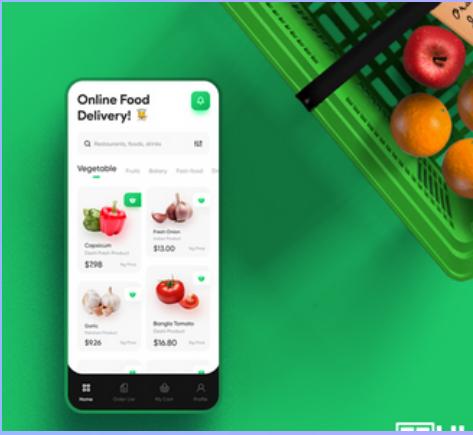
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Average revenue vs. city

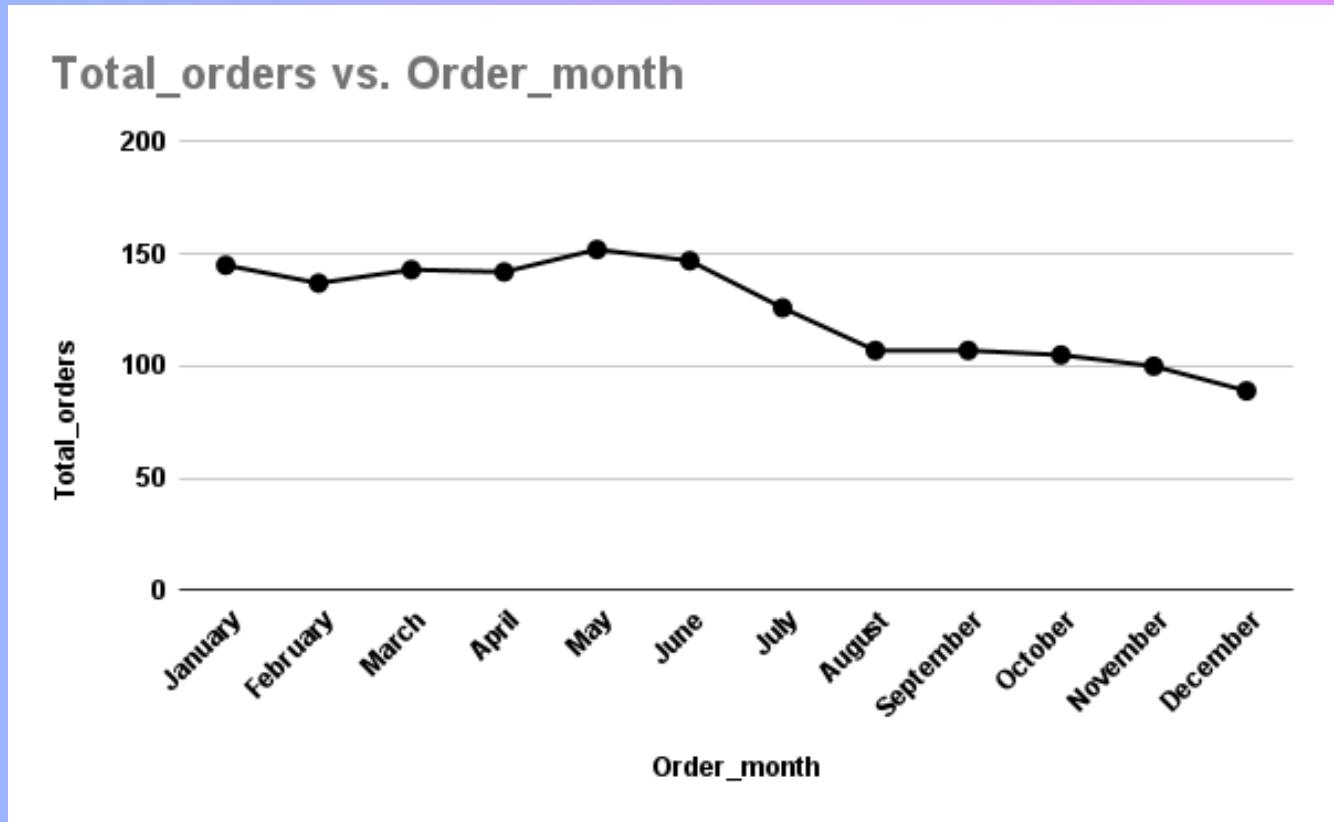


MUMBAI, HYDRABAD, PUNE have the highest average order value by city compared to SURAT AHMEDABAD AS top runner have active markets , focus marketing strategies , expansion strategies , need to improve operations in other cities





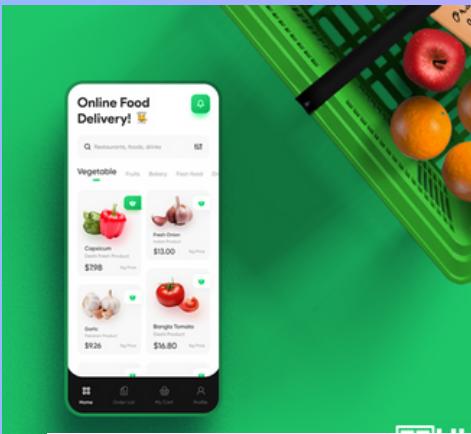
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Insights tracking the monthly growth in orders
peak ordering months
impacts of festivals, holidays ,weather
plan time sensitive discount or campaigns

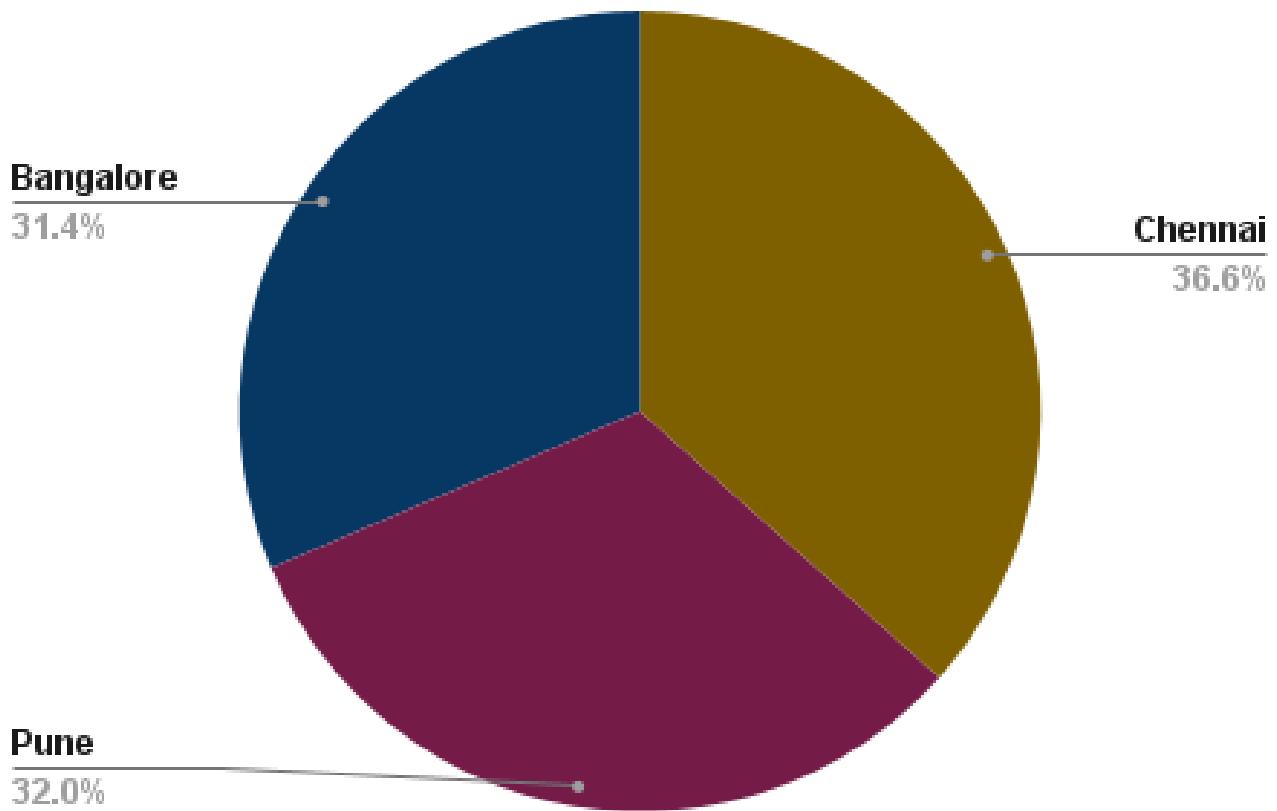


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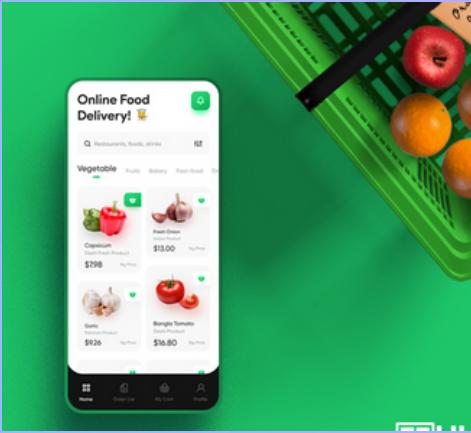
TOTAL REVENUE TOP 3 CITY



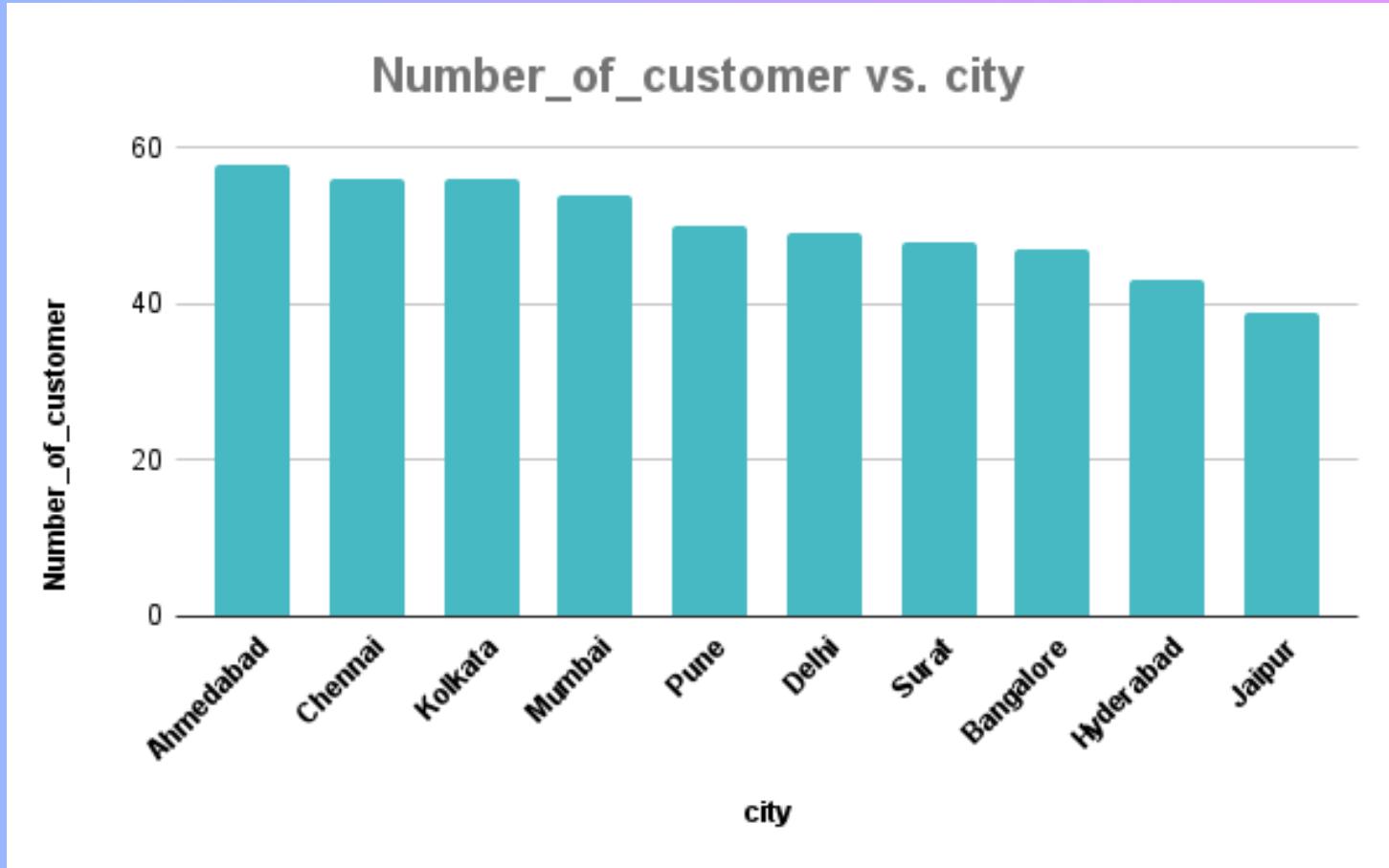
CHENNAI,PUNE,BANGALORE are the top 3 focus more on the other cities which are at the bottom of this list



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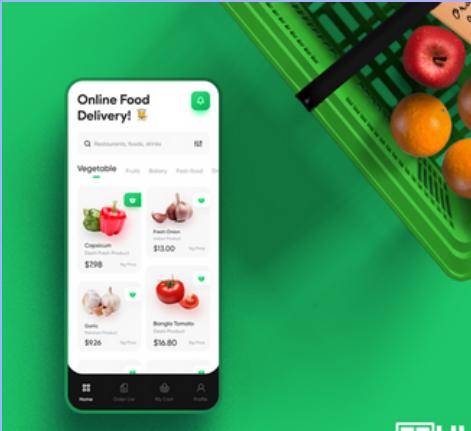
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AHMEDABAD, CHENNAI,KOLKATA
are the top 3 with most number of customer
try to focus on the least in terms of
customers like JAIPUR

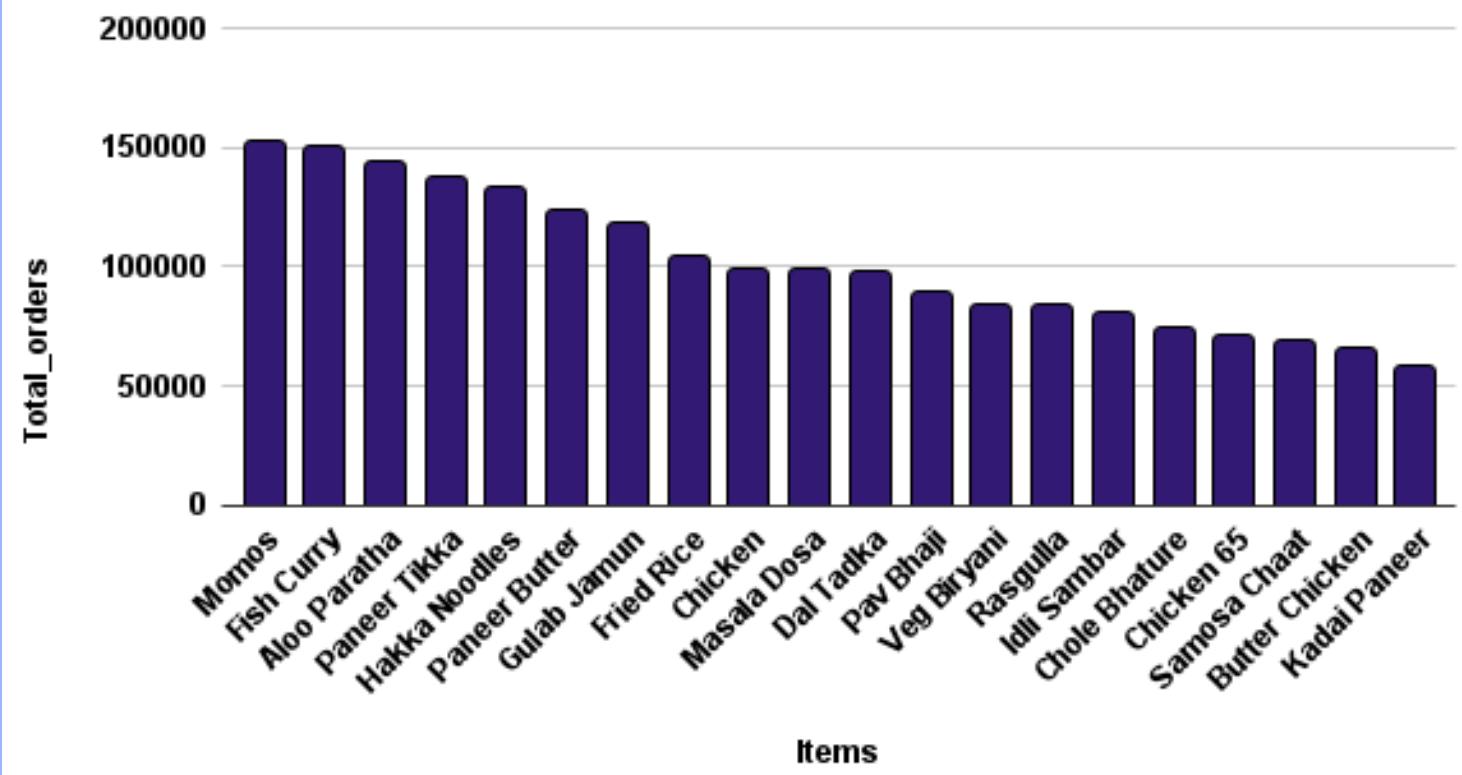


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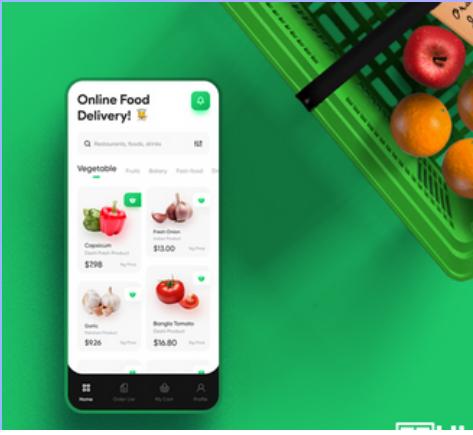
Total orders VS Items



MOMOS are the most ordered times
followed by fish curry and aloo paratha make
sure the raw material of these dishes are
always available

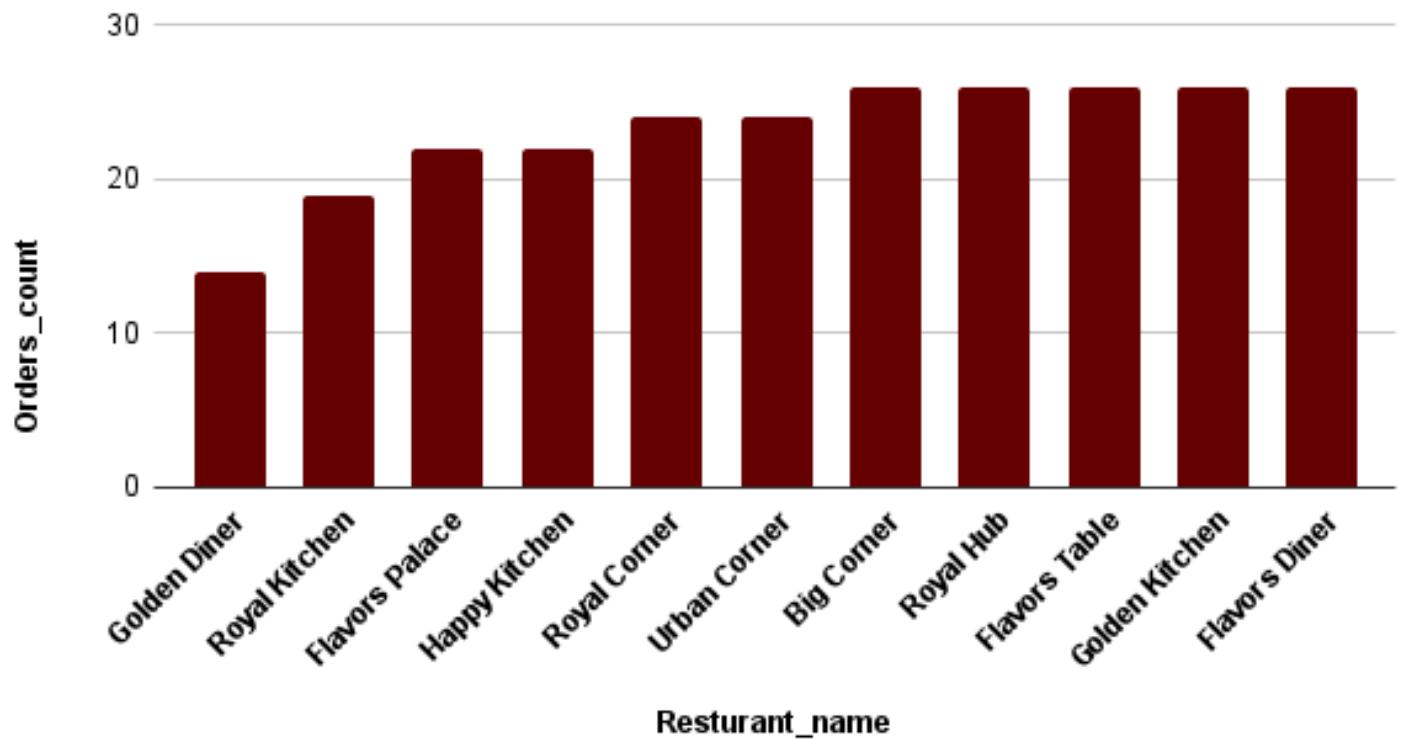


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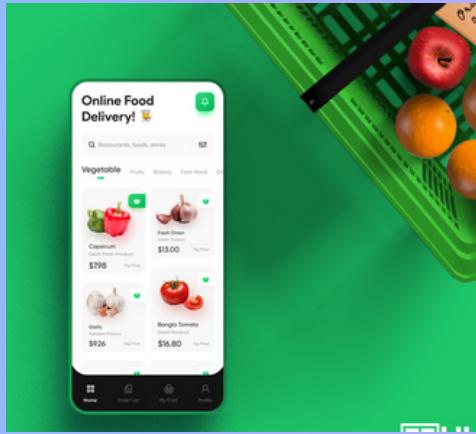
Orders_count vs. Restaurant



GOLDEN DINER is the lowest among less than 30 order count criteria it has 14 order count

TOTAL 11 restaurant are there in this list





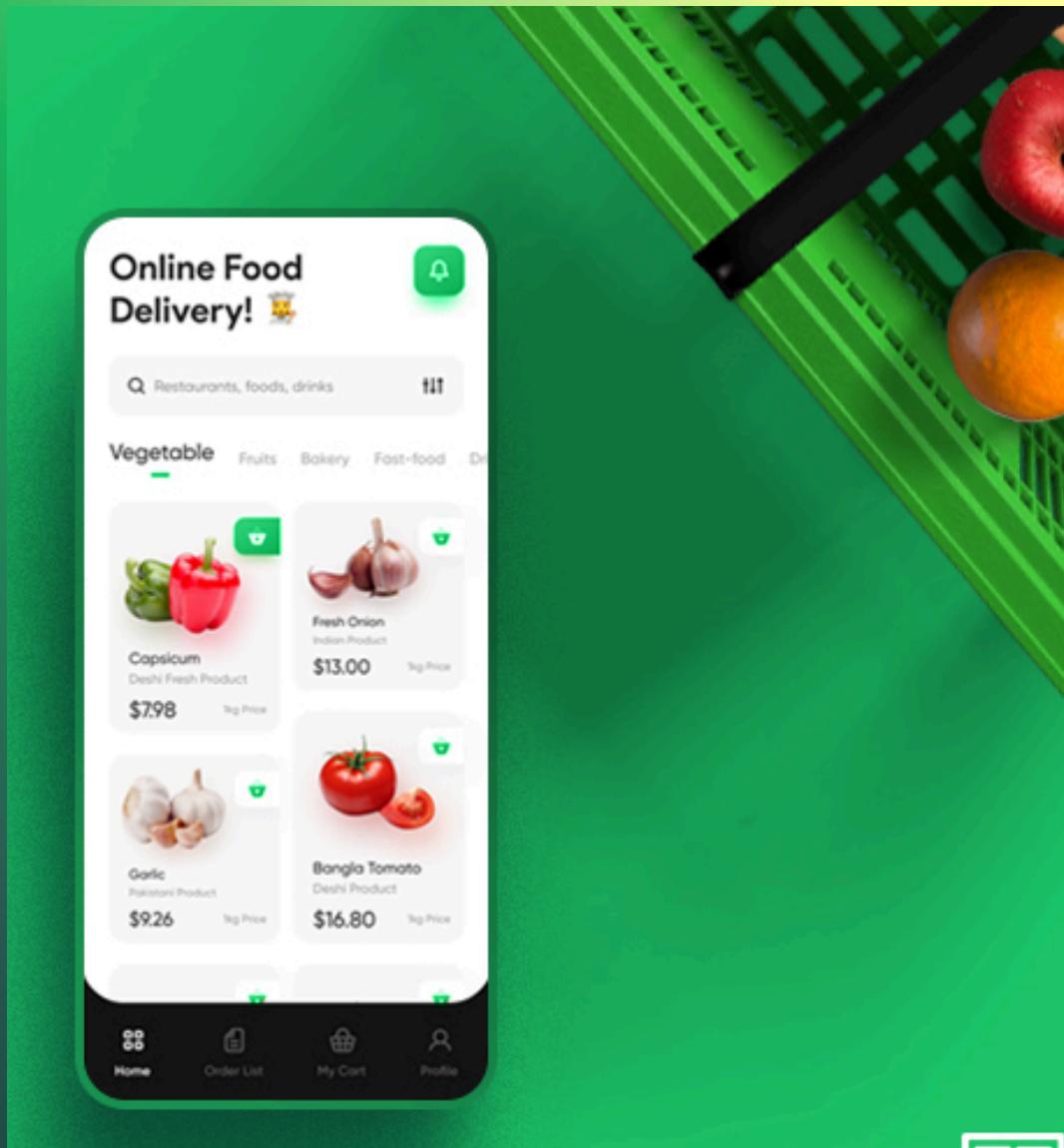
Conclusion

In conclusion, this project successfully demonstrated the power of SQL in analyzing real-world datasets to uncover valuable insights.

By employing various SQL techniques such as data filtering, relational operations, and aggregate functions, we extracted meaningful patterns and trends from the data.

The visualizations further enhanced the interpretability of these insights, supporting informed decision-making. This analysis highlights the importance of structured query language in data analysis and its relevance in solving real-world problems efficiently.





THANK YOU



DATA PENCIL and Kalyani Bhatnagar Ma'am for
this opportunity.