



Analysis of restaurant data of Zomato.

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Introduction to Zomato Restaurant Dataset Analysis

Overview

This presentation provides a comprehensive analysis of the Zomato restaurant dataset, aiming to uncover trends and insights in the restaurant industry. Using SQL for data extraction and Power BI for visualization, we explore various aspects of the dataset to deliver actionable insights.

Dataset Description

- restaurant_data**: Includes details like RestaurantID, Restaurant_Name, CountryCode, City, Cuisines, Booking and Delivery options, Price range, Votes, and Ratings.
- countrytable**: Contains CountryCode and Country_Name.

Key Analyses

- 1.Data Cleaning**: Ensured data integrity by handling missing values and removing duplicates.
- 2.Business Questions**: Addressed queries such as identifying cities with highest ratings, best restaurants in specific cities, and price range distribution.
- 3.Country-wise Analysis**: Used joins to analyze restaurant performance, cuisine preferences, and cost distribution across countries



1. Top 5 Cities with the Most Restaurants

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Identify the cities that have the highest number of restaurants.

```
SELECT City, COUNT(RestaurantID) AS Restaurant_Count
FROM restaurant_data
GROUP BY City
ORDER BY Restaurant_Count DESC
LIMIT 5;
```

Output:

City	Restaurant_Count
New Delhi	5473
Gurgaon	1118
Noida	1080
Faridabad	251
Ghaziabad	25

2. Restaurants with Highest Ratings

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Query: Get top 10 restaurants by rating.

```
SELECT Restaurant_Name, Rating
FROM restaurant_data
ORDER BY Rating DESC
LIMIT 10;
```

Output:

Restaurant_Name	Rating
Naturals Ice Cream	4.9
Indian Accent - The Manor	4.9
Barbeque Nation	4.9
Grandson of Tunday Kababi	4.9
AB's - Absolute Barbecues	4.9
Barbeque Nation	4.9
Barbeque Nation	4.9
Barbeque Nation	4.9
Sagar Gaire Fast Food	4.9
Tresind - Nassima Royal Hotel	4.9



3. Restaurants Offering Both Table Booking and Online Delivery

Find restaurants offering **both table** booking **and** online delivery services.

```
SELECT Restaurant_Name, City, Rating
FROM restaurant_data
WHERE Has_Table_booking = TRUE AND Has_Online_delivery = TRUE
ORDER BY Rating DESC
LIMIT 10;
```

Output:

Restaurant_Name	City	Rating
Chili's	Chennai	4.8
The Fusion Kitchen	Mumbai	4.7
Zabardast Indian Kitchen	New Delhi	4.7
The Fatty Bao - Asian Gastro Bar	Bangalore	4.7
Chili's	Hyderabad	4.7
Spezia Bistro	New Delhi	4.6
Bombay Brasserie	Chennai	4.6
India Restaurant	Kolkata	4.6
Coast Cafe	New Delhi	4.5
Basil With A Twist	Chennai	4.5

4. Cities with the Highest Average Cost for Two

Identify cities **where** the average cost **for** two people **is** the highest.

```
SELECT City, AVG(Average_Cost_for_two) AS Avg_Cost
FROM restaurant_data
GROUP BY City
ORDER BY Avg_Cost DESC
LIMIT 5;
```

Output:

City	Avg_Cost
Jakarta	373571.428571
Bogor	160000.000000
Bandung	150000.000000
Pasay City	333333
Mandaluyong City	2000.000000



5. Top 5 Countries with the Most Restaurants

Identify the top 5 countries with the highest number of restaurants.

```
SELECT c.Country_Name, COUNT(rd.RestaurantID) AS Total_Restaurants
FROM restaurant_data rd
JOIN countrytable c ON rd.CountryCode = c.CountryCode
GROUP BY c.Country_Name
ORDER BY Total_Restaurants DESC
limit 5;
```

Output:

Country_Name	Total_Restaurants
India	8652
USA	434
UAE	60
Malayasia	60
South Africa	24

6. SQL Query for Cuisine Preferences by Country

```
SELECT
    c.Country_Name,
    rd.Cuisines,
    COUNT(rd.RestaurantID) AS Restaurant_Count
FROM
    restaurant_data rd
JOIN
    countrytable c ON rd.CountryCode = c.CountryCode
GROUP BY
    c.Country_Name, rd.Cuisines
ORDER BY
    c.Country_Name, Restaurant_Count DESC
LIMIT 5;
```

Output:

Country_Name	Cuisines	Restaurant_Count
India	North Indian	936
India	North Indian, Chinese	511
India	Fast Food	348
India	Chinese	340
India	North Indian, Mughlai	334



7. Top 2 Restaurants with Highest Votes in Each Price Range

- ❌ Identify the top 2 restaurants with the highest votes in each price range.

```
SELECT Price_range, Restaurant_Name, City, Votes
FROM (
    SELECT Price_range, Restaurant_Name, City, Votes,
           ROW_NUMBER() OVER (PARTITION BY Price_range ORDER BY Votes DESC) AS rn
    FROM restaurant_data
) subquery
WHERE rn <= 2
ORDER BY Price_range, Votes DESC;
```

Output:

Price_range	Restaurant_Name	City	Votes
1	Wenger's	New Delhi	3591
1	Andhra Bhavan	New Delhi	3010
2	Truffles	Bangalore	9667
2	BarBQ	Kolkata	5288
3	Hauz Khas Social	New Delhi	7931
3	Peter Cat	Kolkata	7574
4	Toit	Bangalore	10934
4	Farzi Cafe	Gurgaon	4385



8. Top 10 Restaurants with the Most Votes and "Very Good" Rating Text

Find the top 10 restaurants with the most votes and a "Very Good" rating text.

```
SELECT Restaurant_Name, City, Votes, Rating
FROM restaurant_data
WHERE Rating_text = 'Very Good'
ORDER BY Votes DESC
LIMIT 10;
```

Output:

Restaurant_Name	City	Votes	Rating
Hauz Khas Social	New Delhi	7931	4.3
Peter Cat	Kolkata	7574	4.3
The Black Pearl	Bangalore	5385	4.1
BarBQ	Kolkata	5288	4.2
Saravana Bhavan	New Delhi	5172	4.3
Joey's Pizza	Mumbai	5145	4
Karim's	New Delhi	4689	4
Farzi Cafe	Gurgaon	4385	4.3
Gulati	New Delhi	4373	4.4
Ricos	New Delhi	4085	4.3



9. Grouping the restaurants basis the average cost for two into: Luxurious Expensive, Very Expensive, Expensive, High, Medium High, Average. Then, find the number of restaurants in each category.

```
• SELECT
    CASE
        WHEN Average_Cost_for_two BETWEEN 150000 AND 800000 THEN 'Luxurious Expensive'
        WHEN Average_Cost_for_two BETWEEN 70000 AND 149999 THEN 'Very Expensive'
        WHEN Average_Cost_for_two BETWEEN 5000 AND 69999 THEN 'Expensive'
        WHEN Average_Cost_for_two BETWEEN 1200 AND 4999 THEN 'High'
        WHEN Average_Cost_for_two BETWEEN 500 AND 1199 THEN 'Medium High'
        WHEN Average_Cost_for_two BETWEEN 0 AND 499 THEN 'Average'
        ELSE 'Invalid'
    END AS Price_Category,
    COUNT(RestaurantID) AS Restaurant_Count
FROM
    restaurant_data
GROUP BY
    Price_Category
ORDER BY
    Restaurant_Count DESC;
```

Output:

Price_Category	Restaurant_Count
Average	4953
Medium High	3272
High	1028
Expensive	23
Luxurious Expensive	9
Very Expensive	1

10. Finding Affordable Top-Performing Restaurants



SELECT

```
Restaurant_Name AS restaurant_name,  
City AS city,  
Cuisines AS cuisines,  
Price_range AS price_range,  
Average_Cost_for_two AS avg_cost_for_two,  
Rating AS avg_rating,  
Votes AS total_votes,
```

CASE

```
WHEN Rating >= 4.5 AND Votes < 100 AND Price_range <= 2 THEN 'Hidden Gem'  
WHEN Rating >= 4 AND Votes > 500 AND Price_range <= 3 THEN 'Affordable Popular'  
WHEN Rating >= 4.5 AND Price_range > 3 THEN 'High-End Favorite'  
ELSE 'General'
```

END AS category

FROM

```
restaurant_data
```

WHERE

```
Rating >= 4  
AND `Has_Online_delivery` = 'Yes'  
AND `Has_Table_booking` = 'Yes'
```

ORDER BY

```
category ASC, avg_rating DESC, total_votes DESC, avg_cost_for_two ASC;
```

Output:

restaurant_name	city	cuisines	price_range	avg_cost_for_two	avg_rating	total_votes	category
Barbeque Nation	Kolkata	North Indian, Chinese	3	1600.00	4.9	5966	Affordable Popular
AB's - Absolute Barbecues	Hyderabad	European, Mediterranean, North Indian	3	1500.00	4.9	5434	Affordable Popular
Mirchi And Mime	Mumbai	North Indian, South Indian, Mughlai	3	1500.00	4.9	3244	Affordable Popular
McGuire's Irish Pub & Brewery	Pensacola	Burger, Bar Food, Steak	3	40.00	4.9	2238	Affordable Popular
Barbeque Nation	Kolkata	North Indian, Chinese	3	1600.00	4.9	1753	Affordable Popular
Talaga Sampireun	Jakarta	Sunda, Indonesian	3	200000.00	4.9	1662	Affordable Popular
Pom Pom's Teahouse and Sandwicheria	Orlando	American, Sandwich, Tea	2	25.00	4.9	1457	Affordable Popular
Mazzaro's Italian Market	Tampa Bay	Italian, Deli	1	10.00	4.9	1424	Affordable Popular
Mr. Dunderbak's Biergarten and Marktplatz	Tampa Bay	European, German	3	40.00	4.9	1413	Affordable Popular
Yellow Dog Eats	Orlando	American, BBQ, Sandwich	3	35.00	4.9	1252	Affordable Popular
Silantro Fil-Mex	Pasig City	Filipino, Mexican	3	800.00	4.9	1070	Affordable Popular
Grandson of Tunday Kababi	Lucknow	Mughlai, Lucknowi	1	300.00	4.9	1057	Affordable Popular
AB's - Absolute Barbecues	Chennai	North Indian, European, Mediterranean	3	1600.00	4.9	859	Affordable Popular

Conclusion



The comprehensive analysis of the Zomato dataset highlights the vast potential of leveraging data to uncover meaningful insights. By using multiple SQL queries, we were able to explore various aspects of restaurant performance, customer preferences, and market dynamics.

Key takeaways include:

1.Restaurant Performance: High-rated restaurants with a balance of affordability and popularity appeal most to customers. Identifying unique categories like "Hidden Gems" and "Affordable Favorites" helps in strategic targeting.

2.Customer Preferences: Cities with diverse cuisines and moderate price ranges attract the highest customer engagement. Online delivery and table booking services are critical for staying competitive.

3.Operational Insights: Understanding price distribution, votes, and average costs enables better decision-making for both customers and business owners.

4.Market Trends: Restaurants with high ratings and low votes present opportunities for growth through effective marketing. Premium restaurants serve a niche market but remain essential for overall market balance.