Swiggy Analysis

Debashmita Saha

Problem Statement:

Analysing the average customer ratings for restaurants in Ahmedabad and Bangalore to identify trends, patterns, and potential areas for improvement.

Data Description:

The dataset has 50,000 distinct restaurants spread across two metropolitan cities Bangalore and Ahmedabad. Variables of interest in the analysis: Restaurant name, City, rating, cost_per_person, Cusine, Menu_category, Price and Veg_or_nonveg

Assumptions and constraints:

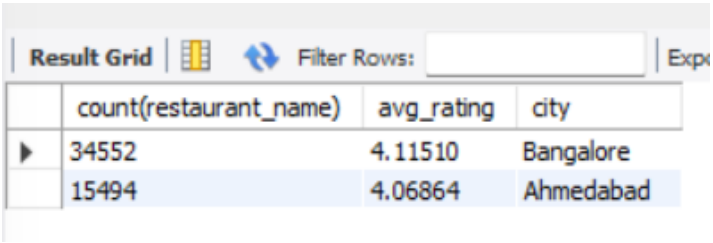
The code is tested on random dummy data and hence inaccurate to existing real-time information. The dataset created is solely for debugging and is not intended to drive any real-life business insights.

Codes and Output:

Showing the number of restaurants across both the cities and the average rating of all restaurants combined.

Code: select distinct count(restaurant_name), avg(rating) as avg_rating, city from swiggy group by city order by avg_rating desc;

Output:

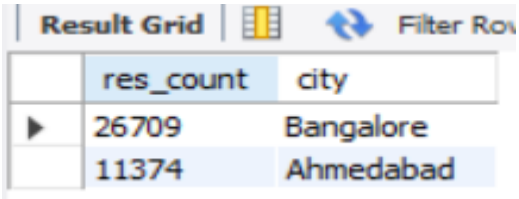

Result Grid | Filter Rows: | Exp

count(restaurant_name)	avg_rating	city
34552	4.11510	Bangalore
15494	4.06864	Ahmedabad

Data shows that Bangalore has nearly double the number of restaurants than Ahmedabad where Bangalore has an average rating of 4.11 and Ahmedabad with an average rating of 4.06. Out of which Bangalore and Ahmedabad has 26709 and 1137 restaurants respectively with a rating of 4 and above.

Code: select distinct count(restaurant_name) as res_count, city from swiggy where rating >= 4 group by city order by res_count desc;

Output:

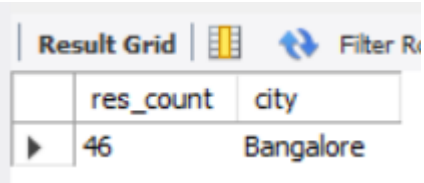

Result Grid | Filter Ro

res_count	city
26709	Bangalore
11374	Ahmedabad

We also see that Bangalore and Ahmedabad have 46 and 397 restaurants with ratings of 3 or less, Bangalore still has 46 restaurants that are rated less than 3 where as the lowest rating for restaurants in Ahmedabad stops at 3.

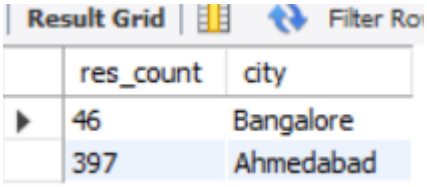
Code: select distinct count(restaurant_name) as res_count, city from swiggy where rating < 3 group by city order by res_count;

Output: (When rating < 3)



res_count	city
46	Bangalore

Output: (When rating < = 3)



res_count	city
46	Bangalore
397	Ahmedabad

Showing the top 10 restaurants with the highest ratings from Bangalore and Ahmedabad combined

Code: select restaurant_name, city, avg(rating) as avg_rating from swiggy group by restaurant_name, city order by avg_rating desc limit 10;

Output:

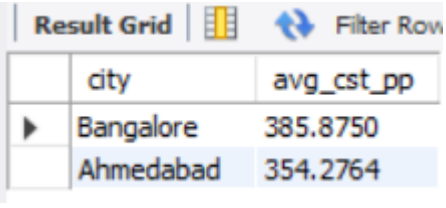
restaurant_name	city	avg_rating
Makers of Milkshakes	Bangalore	4.70000
Chaska Bun	Bangalore	4.70000
Natural Ice Cream	Bangalore	4.70000
Natural Ice Cream	Ahmedabad	4.70000
Bombay Kulfis	Bangalore	4.65135
Fit O'Clock	Ahmedabad	4.60000
Zen Cafe	Ahmedabad	4.60000
Masala Chai	Bangalore	4.60000
Corner House Ice Cream	Bangalore	4.60000
Apsara Ice Creams	Bangalore	4.60000

Out of top 10 restaurants, 7 are from Bangalore and 3 are from Ahmedabad.

Showing the average cost per person required for both cities across all restaurants

Code: select distinct city, avg(cost_per_person) as avg_cst_pp from swiggy group by city order by avg_cst_pp desc;

Output:



city	avg_cst_pp
Bangalore	385.8750
Ahmedabad	354.2764

Bangalore shows a higher cost per person for restaurant services in average the difference between Bangalore and Ahmedabad is of ₹31.6 which is a nominal amount.

Showing the relation between average cost per person and average rating

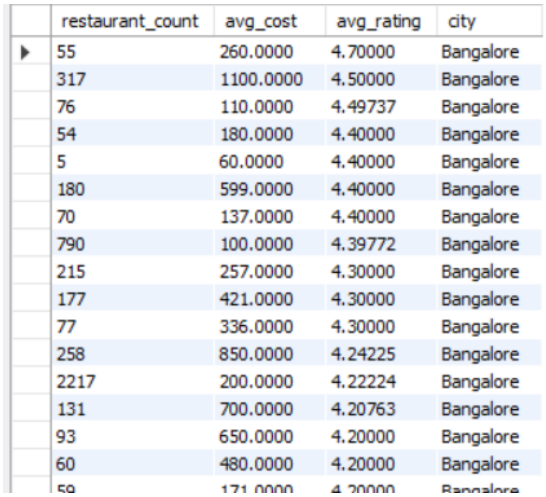
```
SELECT
    COUNT(restaurant_name) AS restaurant_count,
    AVG(cost_per_person) AS avg_cost,
    AVG(rating) AS avg_rating, city
```

```
SELECT
    COUNT(restaurant_name) AS restaurant_count,
    AVG(cost_per_person) AS avg_cost,
    AVG(rating) AS avg_rating, city
```

Output: Where city is Ahmedabad

restaurant_count	avg_cost	avg_rating	city
34	150.0000	4.70000	Ahmedabad
223	480.0000	4.30000	Ahmedabad
126	900.0000	4.20000	Ahmedabad
964	450.0000	4.14056	Ahmedabad
1275	500.0000	4.13733	Ahmedabad
3076	400.0000	4.11700	Ahmedabad
1400	250.0000	4.09729	Ahmedabad
16	NULL	4.08125	Ahmedabad
1899	300.0000	4.07962	Ahmedabad
279	550.0000	4.06774	Ahmedabad
4059	200.0000	4.05578	Ahmedabad
529	600.0000	4.03459	Ahmedabad
1074	350.0000	3.84507	Ahmedabad
540	700.0000	3.79852	Ahmedabad

Output: Where city is Bangalore



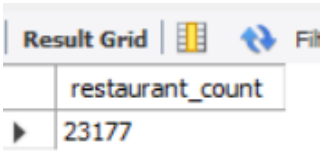
restaurant_count	avg_cost	avg_rating	city
55	260.0000	4.70000	Bangalore
317	1100.0000	4.50000	Bangalore
76	110.0000	4.49737	Bangalore
54	180.0000	4.40000	Bangalore
5	60.0000	4.40000	Bangalore
180	599.0000	4.40000	Bangalore
70	137.0000	4.40000	Bangalore
790	100.0000	4.39772	Bangalore
215	257.0000	4.30000	Bangalore
177	421.0000	4.30000	Bangalore
77	336.0000	4.30000	Bangalore
258	850.0000	4.24225	Bangalore
2217	200.0000	4.22224	Bangalore
131	700.0000	4.20763	Bangalore
93	650.0000	4.20000	Bangalore
60	480.0000	4.20000	Bangalore
59	171.0000	4.20000	Bangalore

No proper causal relationship is visible between the average cost per person and the average rating in both cities.

Showing the restaurants whose average cost per person is greater than the mean average cost per person of all restaurants

Code: SELECT COUNT(restaurant_name) AS restaurant_count FROM swiggy WHERE cost_per_person > (SELECT AVG(cost_per_person) FROM swiggy);

Output:



Result Grid

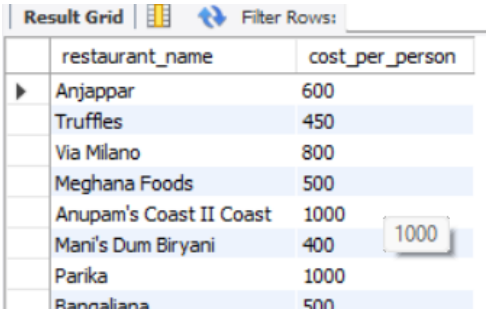
restaurant_count
23177

Showing the list of those restaurants

Code: select distinct restaurant_name, cost_per_person from swiggy where cost_per_person >

(select avg(cost_per_person) from swiggy);

Output:

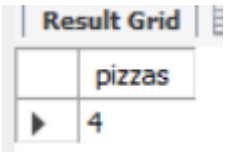


restaurant_name	cost_per_person
Anjappar	600
Truffles	450
Via Milano	800
Meghana Foods	500
Anupam's Coast II Coast	1000
Mani's Dum Biryani	400
Parika	1000
Bangaliana	500

Showing how many restaurant names have pizza in then

Code: select count(distinct restaurant_name) as pizzas from swiggy where restaurant_name like '%pizza%' or '%PIZZA%' ;

Output:



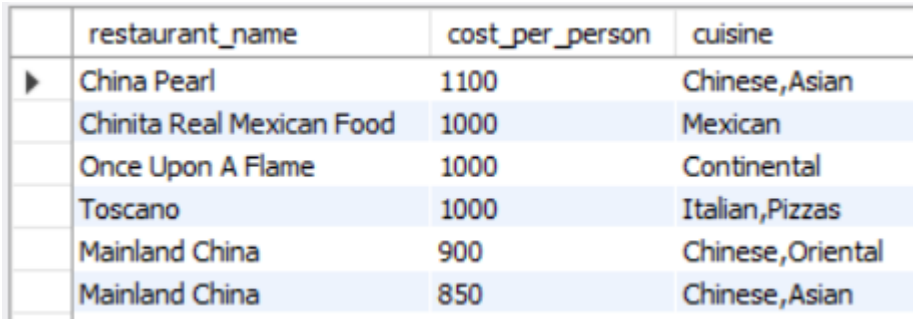
pizzas
4

Only 4 restaurants have the word pizza in their names in both the cities

Showing the restaurants that do not have “Indian cuisine” in their menu

Code: select distinct restaurant_name, cost_per_person, cuisine from swiggy where cuisine not like '%Indian%' order by cost_per_person desc;

Output:



restaurant_name	cost_per_person	cuisine
China Pearl	1100	Chinese,Asian
Chinita Real Mexican Food	1000	Mexican
Once Upon A Flame	1000	Continental
Toscano	1000	Italian,Pizzas
Mainland China	900	Chinese,Oriental
Mainland China	850	Chinese,Asian

Total restaurants which do not have “Indian cuisine” in their menu

Code: SELECT COUNT(*) AS total_restaurants FROM swiggy WHERE cuisine NOT LIKE ‘%Indian%';

Output:

Result Grid

total_restaurants
31393

Showing the restaurants with the same name but located in different cities

Code: select distinct t1.restaurant_name, t1.city,t2.city from swiggy t1 join swiggy t2 on t1.restaurant_name=t2.restaurant_name and t1.city<>t2.city;

Output:

restaurant_name	city	city
Subway	Bangalore	Ahmedabad
Mainland China	Bangalore	Ahmedabad
Burger King	Bangalore	Ahmedabad
Pizza Hut	Bangalore	Ahmedabad
Behrouz Biryani	Bangalore	Ahmedabad
McDonald's	Bangalore	Ahmedabad
Faasos - Wraps & Rolls	Bangalore	Ahmedabad
KFC	Bangalore	Ahmedabad
Oven Story Pizza	Bangalore	Ahmedabad
Sweet Truth - Cake and Desserts	Bangalore	Ahmedabad
Natural Ice Cream	Bangalore	Ahmedabad
Cafe Coffee Day	Bangalore	Ahmedabad

Showing the restaurant with the highest number of items in the main course

Code: select distinct restaurant_name, menu_category, count(item) as no_of_item, avg(cost_per_person) as avg_cost from swiggy where menu_category='Main Course' group by restaurant_name, menu_category order by no_of_item desc limit 1;

Output:

restaurant_name	menu_category	no_of_item	avg_cost
Spice Up	Main Course	172	400.0000

Showing the list of 100% vegetarian restaurants in an alphabetical order

Code: select distinct restaurant_name, (count(case when veg_or_nonveg='Veg' then 1 end)*100/

count(*)) as vegetarian_percentage from swiggy group by restaurant_name having vegetarian_percentage=100.00 order by restaurant_name;

Output:

restaurant_name	vegetarian_percentage
1944 - The Hocco Kitchen	100.0000
1944 The Hocco Kitchen	100.0000
1947 Restaurant	100.0000
24th Main	100.0000
9834 The Fruit Truck	100.0000
A2B Veg	100.0000
Ab Chai Pe Charcha	100.0000
Adiga's	100.0000
Alinea Restaurant & Banquet	100.0000
Anand Sweets and Savouries	100.0000
Angat 22 - The Restaurant ...	100.0000
Apsara Ice Creams	100.0000
Asha Sweet Center	100.0000
Baker'S Den	100.0000
Balista	100.0000
Baskin Robbins	100.0000

Showing the restaurant providing the lowest average price of all items

Code: select distinct restaurant_name, avg(price) as avg_price from swiggy group by restaurant_name order by avg_price limit 1;

Output:

Result Grid | Filter Rows:

restaurant_name	avg_price
Urban Kitli	61.47191011235955

Showing the restaurant providing the highest average price of all items

Code: select distinct restaurant_name, avg(price) as avg_price from swiggy group by restaurant_name order by avg_price desc limit 1;

Output:

restaurant_name	avg_price
Paradise Biryani	637.8888888888889

Showing top 5 restaurants offering the highest number of categories

Code: select distinct restaurant_name, count(distinct menu_category) as no_of_categories from swiggy group by restaurant_name order by no_of_categories desc limit 5;

Output:

	restaurant_name	no_of_categories
▶	Imperial Restaurant	39
	Asha Sweet Center	37
	Hotel Empire	30
	Udupi Palace	30
	Angat 22 - The Restaurant & Banquet	27

Showing the restaurant providing 100% non-vegetarian food

Code: select distinct restaurant_name, (count(case when veg_or_nonveg='Non-veg' then 1 end)*100) / count(*) as nonvegetarian_percentage from swiggy group by restaurant_name order by nonvegetarian_percentage desc limit 1;

Output:

Result Grid | Filter Rows:

	restaurant_name	nonvegetarian_percentage
▶	Donne Biryani House	100.0000

Showing the most common cuisine among the restaurants

Code: select cuisine, count(*) as cuisine_count from swiggy group by cuisine order by cuisine_count desc limit 1;

Output:

Result Grid | Filter Rows:

	cuisine	cuisine_count
▶	North Indian,Chinese	3098

Conclusion

The dataset has shown the differences and similarities in restaurant culture between Ahmedabad and Bangalore. There was no direct relationship between the average cost per person and the ratings of the restaurants but we see a slight linear pattern between the number of cuisines offered and the average cost per person of the restaurants. The data has shown the difference between the average cost per person required for restaurant services in Ahmedabad is ₹ 31 less than that required in Bangalore. Though a borderline contrast the same can be explained due to the cost of living difference in both the cities. We also see that the varieties available in Bangalore are more than the varieties available in Ahmedabad as it has a lesser number of restaurants. Both cities have a similar range of ratings for restaurants and offering similar kind of cuisines which is explained as many restaurants are food chains across different cities maintaining the same standards.