



Zomato Restaurant Expansion Analysis

## 27.05.2025

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# Answers for Objective Ǫuestions

1. What is the total number of tables present in data?
   1. There are two tables present in the data. They are Raw Data and Country Description.
      1. : Raw Data - Consists various restaurant details in different countries.



* + 1. : Country Description - Consists of different country names and their respective codes.



### What is the total no. of attributes present in the data?

* 1. There are a total **21** attributes present in the data. They are:
* **RestaurantID**: The unique ID of each restaurant
* **RestaurantName**: Names of each restaurant
* **CountryCode**: Unique code of each country in which the restaurant is situated
* **Country**: Country name of the restaurant situated
* **City**: City name of the restaurant situated
* **Address**: Address of the restaurant
* **Locality**: Locality of the restaurant
* **LocalityVerbose**: Detailed information of the locality
* **Longitude**: The geographical longitude coordinate of the restaurant
* **Latitude**: The geographical latitude coordinate of the restaurant
* **Cuisines**: Different varieties of food served in the restaurant
* **Currency**: Currency of different countries
* **Has\_Table\_booking**: Shows whether the restaurant have table booking or not in Yes/No terms
* **Has\_Online\_booking**: Shows whether the restaurant have online booking or not in Yes/No terms
* **Is\_delivering\_now**: Shows whether the restaurant is delivering now or not in Yes/No terms
* **Switch\_to\_order\_menu**: Shows whether the restaurant is having switching to order menu or not in Yes/No terms
* **Price\_range**: On scale of 1 to 4, the prices of the food items are distributed here
* **Votes**: The number of votes received by a restaurant
* **Average\_cost\_for\_two**: The average cost for two person dining at the restaurant
* **Rating**: The rating received from customers
* **Datekey\_Opening**: The opening date of the restaurant

### How many categorical columns are there in the data?

* 1. There are **14** categorical columns present in the data.

Country, Country\_code, City, Cuisines, Currency, Has\_Table\_booking, Has\_Online\_delivery, Is\_delivering\_now, Switch\_to\_order\_menu, Price\_range, Rating, Votes, Average\_cost\_for\_two, Datekey\_opening.

### The data consists of some inconsistent and missing values so ensure that the data used for further analysis is cleaned.

* 1. The data consists of some inconsistent data, missing data, and zero values.
* The inconsistent date is present in the Datekey\_opening column. So I corrected it by replacing underscore(\_) with hyphen(-) to make the date format perfect.
* I’ve tried to find the duplicate values using remove duplicates feature, but there are no duplicates found in the data.
* There were some missing values present in the Cuisines column. So I've found that all of them related to the restaurants which are located in the USA. I filled those columns by the cuisine “American” because majority of the restaurants in the USA have American cuisine.
* There were zeroes present in the “Average\_cost\_for\_two” column, so I’ve

filled them based on the price range present in those particular cities.

* Also I’ve removed one row which is missing the main data which helps in analysis. The removed row is missing cuisine and not having average cost for two.

### Using the Lookup functions, fill up the countries in the original data using the country code.

* 1. I have filled the country names in raw/original data in the column by using the country code..

To get the country name from the Country Description table based on the country ID present in the raw/original data, I’ve used the VLOOKUP function.

### =VLOOKUP(C2:C9551,'country description'!$A$2:$B$16,2,0)

****

1. **Create a table to represent the number of restaurants present in each country.**
   1. Number of restaurants in each country are listed below

|  |  |  |
| --- | --- | --- |
| **Total number of restaurants opened in each country** | | |
| **Country Code** | **Country Name** | **Number of restaurants opened** |
| 1 | India | 8652 |
| 14 | Australia | 24 |
| 30 | Brazil | 60 |
| 37 | Canada | 4 |
| 94 | Indonesia | 21 |
| 148 | New Zealand | 40 |
| 162 | Philippines | 22 |
| 166 | Qatar | 20 |
| 184 | Singapore | 20 |
| 189 | South Africa | 60 |
| 191 | Sri Lanka | 20 |
| 208 | Turkey | 34 |
| 214 | United Arab Emirates | 60 |
| 215 | United Kingdom | 80 |
| 216 | United States of America | 433 |

* From the above we can observe that India has the highest number of restaurants opened and Canada has least restaurants.
* India is having highest number of restaurants opened with the value of 8652 and the USA follows with 433 restaurants opened stands in the second highest place.
* Canada is having the least number of restaurants opened with the value of 4.

### Also, the management wants to look at the number of restaurants opened each year, so provide them with something here.

* 1. The number of restaurants opened each year are listed below.

|  |  |  |
| --- | --- | --- |
| **Year** | **Count of Restaurants** |  |
| 2010 |  | 1080 |
| 2011 |  | 1098 |
| 2012 |  | 1022 |
| 2013 |  | 1060 |
| 2014 |  | 1051 |
| 2015 |  | 1024 |
| 2016 |  | 1027 |
| 2017 |  | 1086 |
| 2018 |  | 1102 |
| **Grand Total** |  | **9550** |

2010 2011 2012 2013 2014 2015 2016 2017 2018

1027

1024

1022

1051

1060

1086

1080

1102

1098

1120

1100

1080

1060

1040

1020

1000

980

Year wise Count of Restaurants

* From the table and chart in the above, we can observe that the year 2018 has the highest number of restaurants opened with a count of 1102.
* The year 2011 stands second highest with a count of 1098.
* The least number of restaurants were opened in the year 2012 with a count of 1022.

### What is the total number of restaurants in India in the price range of 4?

* 1. The total number of restaurants in India in the price range of 4 are **388.**

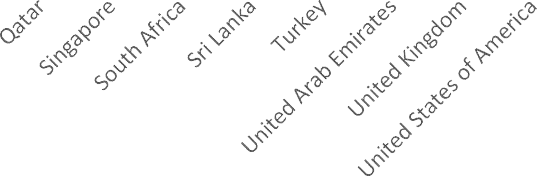
### What is the average number of voters for the restaurants in each country according to the data?

* 1. The average number of voters for the restaurants in each country according to the data is given below.

**Country Average of Votes**

|  |  |
| --- | --- |
| Australia | 111 |
| Brazil | 20 |
| Canada | 103 |
| India | 137 |
| Indonesia | 772 |
| New Zealand | 243 |
| Philippines | 407 |
| Qatar | 164 |
| Singapore | 32 |
| South Africa | 315 |
| Sri Lanka | 146 |
| Turkey | 431 |
| United Arab Emirates | 494 |
| United Kingdom | 205 |
| United States of America | 429 |

**Grand Total 157**



1

10

20

32

100

205

146

137

103

164

111

429

431

315

243

494

407

772

1000

Country wise average number of voters

Indonesia has the highest average of votes whereas Brazil has the least average of votes.

### Calculate the average rating for all the restaurants that have price\_range < 4 and provide online delivery. Use only the “IF” function, Logical Operators, and Aggregation functions to solve this problem. [Note: Don’t use Conditional aggregation in this question.]

* 1. Created the Customized\_rating column to get ratings of restaurants that have price\_range<4 and provide online delivery using IF function, AND operator.

### =IF(AND(R2<4,O2="Yes"),U2,"")

Where R is price\_range Column, O is has\_online\_delivery column and U is rating column.

Then after getting all the ratings based on the above formula, I used the AVERAGE function on the **Customized\_rating** column to get an average rating.

The average rating for all the restaurants that have price\_range < 4 and provide online delivery is **3.27**.

### Using Conditional formatting highlights the rows of restaurants that are located in the countries or cities that you’ve suggested to the management for opening new restaurants.

* 1. After completing all the calculations and analysis I’ve found 8 cities as the best places to open the new restaurants. They are Colombo, Doha, Jakarta, Mandaluyong City, Pasay City, Singapore, Taguig City, and Vineland Station.

So to highlight the restaurants in these cities in the raw/original data, I’ve used the conditional formatting method by creating different formulas for each city.

Formula: **=$e2=”City Name”**

Where **e** is the column of city and in the place of **City Name** I placed the different city name to highlight the respected rows.

### Create a new customized price column that consists of the abbreviation/symbol of the currency along with the Average\_cost\_for\_two value. [Use string operations to do this task]

* 1. To create the Customized price column, first I’ve created the Currency\_symbole column in which I’ve extracted the currency symbol from the currency column using the text function.

### =MID(L2:L9551,FIND("(",L2:L9551)+1,FIND(")",L2:L9551)- FIND("(",L2:L9551)-1)

Where **L** is currency column

Then by using string concatenation I’ve created the Customized price column that consists of the symbol of the currency along with the Average\_cost\_for\_two value.

### =M2:M9551&” “&T2:T9551

Where **M** is currency symbol and **T** is Average\_cost\_for\_two

### How can you create an array formula in Excel or Google Sheets to count the number of restaurants listed that do not offer online delivery, are in the lowest price range, and have an average cost for two people less than or equal to 250 Indian Rupees?

* 1. To answer this question I’ve created an array formula like below

### =SUMPRODUCT(('Raw data'!O:O="No")\*('Raw data'!R:R=1)\*('Raw data'!Z:Z<=250))

Where **O** is Has\_Online\_delivery column, **R** is Price\_range column, and **Z** is Average\_cost\_for\_two(INR) column

The count of the total number of restaurants listed that do not offer online delivery, are in the lowest price range, and have an average cost for two people less than or equal to 250 Indian Rupees using an array formula is **1682.**

# Answers for Subjective Ǫuestions

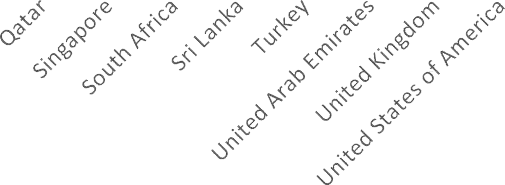
### Suggest a few countries where the team can open newer restaurants with lesser competition. Which visualization/technique will you use here to justify the suggestions?

* 1. To open newer restaurants in any place firstly we need to consider the number of restaurants present there and their ratings to know how they are running.

So I've created a pivot table to find the number of restaurants in each country and the average rating of restaurants presented in those countries.

### Reference:

|  |  |  |
| --- | --- | --- |
| **Country Name** | **Number of Restaurants** | **Average Rating** |
| Australia | 24 | 3.66 |
| Brazil | 60 | 3.85 |
| Canada | 4 | 3.58 |
| India | 8652 | 2.77 |
| Indonesia | 21 | 4.3 |
| New Zealand | 40 | 4.26 |
| Philippines | 22 | 4.47 |
| Qatar | 20 | 4.06 |
| Singapore | 20 | 3.58 |
| South Africa | 60 | 4.21 |
| Sri Lanka | 20 | 3.87 |
| Turkey | 34 | 4.3 |
| United Arab Emirates | 60 | 4.23 |
| United Kingdom | 80 | 4.1 |
| United States of America | 433 | 4.01 |
| **Grand Total** | **9550** |  |



1

4

10

34

20

22 20 20

40

21

24

80

60

60

60

100

Country wise Count of Restaurants

8652

10000

1000 433

**Approach:**

* + - Here my criteria to find out the best cities to open new restaurants is that the countries should have less than or equal to 22 and the average rating is greater than or equal to 3.5.
    - i.e., Number of restaurants <= 22 and Average rating >= 3.5.

### Insights:

* + - India stands at the top with highest number of restaurants with the count of 8652. And USA followed with 433 restaurants and stands at the second top.
    - Canada has only 4 restaurants. Among all other countries Canada has least number of restaurants.
    - And remaining all other countries has restaurants count between 20 to 80.

### Recommendations:

* I’ve found that countries like **Canada**, **Indonesia**, **Philippines**, **Qatar**, **Singapore**, and **Sri Lanka** have fewer restaurants.
* So, I’ll suggest these six countries to open newer restaurants and the average rating also looks decent.
* Establishing new restaurants in these countries will give good returns compared to other countries because of less market saturation.

### Come up with the names of States and cities in the suggested countries suitable for opening restaurants.

* 1. To come up with the names of States and Cities in the suggested countries



suitable for opening restaurants, I’ve created the pivot table by taking the suggested countries, cities in those countries, count of restaurants in those cities, and average of average cost of two in Indian Rupees.

### Reference:

|  |  |  |
| --- | --- | --- |
| **Country & City** | **Count of**  **Restaurants** | **Average of Average cost**  **for two (INR)** |
| **Canada** | **4** | **2201.10** |
| Chatham-Kent | 1 | 1518.00 |
| Consort | 1 | 1518.00 |
| Vineland Station | 1 | 4250.40 |
| Yorkton | 1 | 1518.00 |
| **Indonesia** | **21** | **1434.07** |
| Bandung | 1 | 765.00 |
| Bogor | 2 | 816.00 |
| Jakarta | 16 | 1573.03 |
| Tangerang | 2 | 1275.00 |
| **Philippines** | **22** | **2442.36** |
| Makati City | 2 | 1748.00 |
| Mandaluyong City | 4 | 3040.00 |
| Pasay City | 3 | 5066.67 |
| Pasig City | 3 | 1418.67 |
| Quezon City | 1 | 1216.00 |
| San Juan City | 2 | 1292.00 |
| Santa Rosa | 2 | 1254.00 |
| Tagaytay City | 1 | 1824.00 |
| Taguig City | 4 | 2622.00 |
| **Qatar** | **20** | **6553.64** |
| Doha | 20 | 6553.64 |
| **Singapore** | **20** | **10136.21** |
| Singapore | 20 | 10136.21 |
| **Sri Lanka** | **20** | **665.00** |
| Colombo | 20 | 665.00 |
| **Grand Total** | **107** | **4109.80** |

**Approach:**

* + - To find the number of restaurants located in the suggested cities I’ve created a pivot table by taking the cities country wise and the count of restaurants as values.
    - Also I’ve taken the average of average cost for two (INR) for better

understanding about the expenditure on food in all the cities.

* + - Here to find the best cities to open new restaurants I’m considering the

**average of average cost for two (INR) for each city should be greater**



**than or equal to the average of average cost for two (INR) of it’s**

**respected country.**

**Insights:**

* + - There are 107 restaurants are present in all the suggested countries within the different cities.
    - The Average of average cost for two (INR) is high in the Singapore with the value of Rs.10136.21/- and low in the Sri Lanka with the value of Rs.665/-.
    - Based on the criteria, I found that there are total 8 cities are present in the pivot table.

### Recommendations:

* + - **Canada –** Vineland Station
    - **Indonesia –** Jakarta
    - **Philippines –** Mandaluyong City, Pasay City, Taguig City
    - **Qatar –** Doha

### Singapore

* + - **Sri Lanka -** Colombo



### According to the countries you suggested, what is the current quality regarding ratings for restaurants that are open there?

* 1. The current quality ratings for the restaurants that are situated in the suggested countries is given below.

### Reference:

Country wise Average Rating

5.00

4.00

3.00

2.00

1.00

0.00

4.30

4.47

4.06

3.58

3.58

3.87

Canada Indonesia Philippines Qatar Singapore Sri Lanka

**Approach:**

* I’ve created the above chart from the pivot table in which suggested countries as rows and average rating of restaurants in those countries as values.
* The average rating of the suggested countries is above 3.5.

### Insights:

* From the chart, Philippines has the highest average rating value 4.47 and Canada, Singapore has the least average rating value 3.58.
* The data in the chart clearly showing that the suggested countries have very good food culture and restaurant businesses are doing great.

### Recommendations:

* It is clearly understandable that the restaurants in these countries are doing great.
* So to compete with these restaurants we have to focus on popular cuisines in their cities and make sure that those cuisines are available in our new restaurants.
* The maintenance and management should be equal or greater than the restaurants which already there.



### Also, what is the current expenditure on food in the suggested countries, so we can keep our financial expenditure in control?

* 1. The current expenditure on food in the suggested countries to keep our financial expenditure in control, I’ve created a pivot table and chart based on the average of Average\_cost\_for\_two(INR) and suggested countries.

### Reference:

|  |  |
| --- | --- |
| **Suggested Countries** | **Average of Average cost for two (INR)** |
| Canada | 2201.10 |
| Indonesia | 1434.07 |
| Philippines | 2442.36 |
| Qatar | 6553.64 |
| Singapore | 10136.21 |
| Sri Lanka | 665.00 |
| **Grand Total** | **4109.80** |

**Insights:**

* From the above table and chart, Singapore has the highest average cost for two with the value **Rs.10136.21/-**
* Sri Lanka has the lowest average cost for two with the value **Rs.665/- Recommendations:**
* Offer premium services in countries like Singapore and Qatar where people spend more on food.
* Keep the things affordable in the countries like Sri Lanka, Indonesia, etc., where the people spend less on food.



### Come up with the names of restaurants from the recommended states that are our biggest competitors and also those that are rated in the lower brackets, i.e. 1-2 or 2-3.

* 1. All the restaurant names from the recommended states or cities that are our biggest competitors, that means the restaurants which have higher ratings. **Reference:**

|  |  |
| --- | --- |
| **City wise restaurants** | **Average of Rating** |
| **Colombo** | **4.03** |
| Arabian Knights | 4.20 |
| Burger's King | 4.10 |
| Butter Boutique | 4.20 |
| Cafe Beverly | 4.10 |
| Cafe Shaze | 3.80 |
| Carnival Ice Cream | 4.10 |
| Chinese Dragon Cafe | 3.40 |
| CIOCONAT Lounge | 3.70 |
| Cricket Club Cafe | 4.20 |
| Malay Restaurant | 3.50 |
| Ministry of Crab | 4.90 |
| Simply Strawberries By Jagro | 4.50 |
| T.G.I. Friday's | 4.00 |
| The Commons | 4.00 |
| The Manhattan FISH MARKET | 4.00 |
| The Paddington | 3.60 |
| The Sizzle | 4.20 |
| Upali's | 4.00 |
| **Doha** | **4.06** |
| 7st by Mumbai Spices | 3.40 |
| Aalishan | 3.80 |
| Applebee's | 3.80 |
| Coral - InterContinental Doha | 3.70 |
| Eatopia | 3.90 |
| Gokul Gujarati Restaurant | 4.30 |
| Gymkhana | 4.70 |
| Indian Coffee House | 3.40 |
| Mainland China Restaurant | 4.90 |
| MRA Bakery Sweets & Restaurant | 4.00 |
| Paper Moon | 4.50 |
| Ponderosa | 3.60 |
| Punjab Restaurant | 3.80 |
| Roti & Boti | 3.90 |
| Sabai Thai - The Westin Doha Hotel & Spa | 4.30 |
| Texas Roadhouse | 4.00 |
| The Manhattan FISH MARKET | 4.00 |

|  |  |
| --- | --- |
| Vine - The St. Regis | 4.40 |
| Zaffran Dining Experience | 4.60 |
| Zaoq | 4.20 |
| **Jakarta** | **4.36** |
| 3 Wise Monkeys | 4.20 |
| Avec Moi Restaurant and Bar | 4.30 |
| Fish Streat | 3.70 |
| Flip Burger | 4.40 |
| Lucky Cat Coffee & Kitchen | 4.30 |
| MONKS | 4.20 |
| OJJU | 3.90 |
| Satoo - Hotel Shangri-La | 4.60 |
| Skye | 4.10 |
| Sushi Masa | 4.90 |
| Talaga Sampireun | 4.90 |
| Toodz House | 4.60 |
| Union Deli | 4.60 |
| Zenbu | 4.40 |
| **Mandaluyong City** | **4.63** |
| Din Tai Fung | 4.40 |
| Heat - Edsa Shangri-La | 4.40 |
| Ooma | 4.90 |
| Sambo Kojin | 4.80 |
| **Pasay City** | **4.37** |
| Buffet 101 | 4.00 |
| Spiral - Sofitel Philippine Plaza Manila | 4.90 |
| Vikings | 4.20 |
| **Singapore** | **3.61** |
| Al'frank Cookies | 4.20 |
| Artichoke Cafe | 3.20 |
| Artistry | 3.80 |
| Bitters & Love | 3.90 |
| Boufe Boutique Cafe | 3.20 |
| Chye Seng Huat Hardware | 3.70 |
| Colony | 3.80 |
| Cut By Wolfgang Puck | 4.00 |
| Fratini La Trattoria | 4.10 |
| I Am | 3.20 |
| Jaan | 3.80 |
| Potato Head Folk | 3.10 |
| Restaurant Andre | 3.80 |
| Rhubarb Le Restaurant | 3.90 |
| Sky On 57 | 3.40 |
| Summer Pavilion | 3.90 |
| Super Loco | 3.20 |
| The Lokal | 3.10 |

The Refinery Singapore 3.20

**Taguig City 4.53**

Hobing Korean Dessert Cafe 4.50

NIU by Vikings 4.70

The Food Hall by Todd English 4.50

Wildflour Cafe + Bakery 4.40

**Vineland Station 4.30**

Lake House Restaurant 4.30

**Grand Total 4.07**

* The above pivot table consists of ratings above 3.0 to 3.5 are the moderate competitors for us.
* Our biggest competitors are restaurants which have ratings 3.5 and above.

|  |  |
| --- | --- |
| **City wise restaurants** | **Average of Rating** |
| **Colombo** | **2.45** |
| Elite Indian Restaurant | 2.40 |
| Queen's Cafe | 2.50 |
| **Singapore** | **3.00** |
| Makansutra Gluttons Bay | 3.00 |
| **Grand Total** | **2.63** |

* The above table consists of the restaurants that have very low ratings.
* These restaurants give less competition to us.

### Recommendations:

* The first table contains all the restaurants with average rating greater than or equal to 3 in suggested cities.
* I’ll strongly recommend to focus on the cities Colombo, Doha, Jakarta, and Singapore because these cities have more restaurants with average rating above 3.
* It is clearly understandable that in these cities shows strong customer interest and food culture.

### Which cuisines should we focus on in the newer restaurants to get better feedback? Does the choice of cuisines affect the restaurant ratings?

* 1. The below listed cuisines are the most important ones to be considered in newer restaurants.

### Reference:

|  |  |
| --- | --- |
| **City wise cuisines names** | **Average of Rating** |
| **Colombo** | **4.19** |
| American, Fast Food, Steak, Beverages | 4.20 |
| American, Steak | 4.00 |
| Cafe, Sri Lankan, Continental, American | 4.00 |
| Continental, American | 4.10 |
| Continental, American, Seafood | 4.20 |
| Desserts, Bakery | 4.20 |
| Desserts, Ice Cream | 4.10 |
| Fast Food | 4.10 |
| Juices, Desserts | 4.50 |
| Middle Eastern, Arabian | 4.20 |
| Seafood | 4.90 |
| Seafood, Italian | 4.00 |
| Sri Lankan | 4.00 |
| **Doha** | **4.35** |
| Chinese | 4.90 |
| Indian | 4.53 |
| International | 4.40 |
| Italian | 4.50 |
| Kerala, Indian, Chinese, Bakery | 4.00 |
| Pakistani | 4.20 |
| Seafood, American | 4.00 |
| Steak, American | 4.00 |
| Thai | 4.30 |
| **Jakarta** | **4.46** |
| Asian, Indonesian, Western | 4.60 |
| Burger | 4.40 |
| Cafe, Italian, Coffee and Tea, Western,  Indonesian | 4.60 |
| Cafe, Western | 4.30 |
| Desserts, Bakery, Western | 4.60 |
| French, Western | 4.30 |
| Italian, Continental | 4.10 |
| Japanese | 4.20 |
| Japanese, Sushi, Ramen | 4.40 |
| Seafood, Western | 4.00 |
| Sunda, Indonesian | 4.90 |
| Sushi, Japanese | 4.90 |

Western, Asian, Cafe 4.20

**Mandaluyong City 4.63**

Chinese 4.40

Japanese, Korean 4.80

Japanese, Sushi 4.90

Seafood, Asian, Filipino, Indian 4.40

**Pasay City 4.37**

Asian, European 4.00

European, Asian, Indian 4.90

Seafood, Filipino, Asian, European 4.20

**Singapore 4.10**

American, Steak 4.00

Bakery 4.20

Italian 4.10

**Taguig City 4.53**

American, Asian, Italian, Seafood 4.50

Cafe, Bakery, American, Italian 4.40

Cafe, Korean, Desserts 4.50

Seafood, American, Mediterranean, Japanese 4.70

**Vineland Station 4.30**

Italian, Mediterranean, Pizza 4.30

**Grand Total 4.36**

**Approach:**

* I’ve taken all the Cuisines in the suggested cities which are having the average rating greater than 4.

### Insights:

* All the cuisines present in the above pivot table are the important ones to consider.
* Here we can see that in the suggested cities the restaurants in Colombo the cuisines like Seafood, Juices and desserts are highly rated.
* The restaurants located in Doha have good ratings for cuisines like Chinese, Indian, Italian and International.
* For Vineland station where there is only 1 restaurant, the highly rated cuisine is Italian, Mediterranean, Pizza.

### Recommendations:

* We have to make sure that the top-rated cuisines are available in the new restaurants mandatorily.
* It is clearly showing that the people in those cities are enjoying them because these locations have ready customer base and proven interest.

### According to our current data, should we go for online delivery and table booking? Does that affect the customer’s ratings?

* 1. To get a conclusion on this doubt, I’ve created two different pivot tables by filtering the count of restaurants in the suggested cities by applying filters such as having online delivery in one table and having table booking in another table. **Reference:**

|  |  |  |
| --- | --- | --- |
| **Has online delivery option or not** | | |
| **City Name** | **Count of Restaurants** | **Average of Rating** |
| **No** | **107** | **4.05** |
| Canada | 4 | 3.58 |
| Indonesia | 21 | 4.30 |
| Philippines | 22 | 4.47 |
| Qatar | 20 | 4.06 |
| Singapore | 20 | 3.58 |
| Sri Lanka | 20 | 3.87 |
| **Grand Total** | **107** | **4.05** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Has table booking or not** | | | |
| **City Name** | **Count of Restaurants** |  | **Average of Rating** |
| **No** |  | **92** | **3.97** |
| Canada |  | 4 | 3.58 |
| Indonesia |  | 21 | 4.30 |
| Philippines |  | 8 | 4.43 |
| Qatar |  | 19 | 4.03 |
| Singapore |  | 20 | 3.58 |
| Sri Lanka |  | 20 | 3.87 |
| **Yes** |  | **15** | **4.51** |
| Philippines |  | 14 | 4.49 |
| Qatar |  | 1 | 4.70 |
| **Grand Total** | **107** | | **4.05** |

### Approach:

* + - I’ve created two different pivot tables, first table is about online delivery and second one is for table booking.
    - To create these pivot tables I’ve extracted the suggested cities, count of restaurants having online booking or table booking, and average rating above 3.5 based on the yes or no format.







* + - These tables clearly shows that how many restaurants in each city are providing online booking or table booking with their average rating.

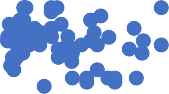
### Insights:

* From the first table, there is not even a single restaurant which has online delivery.
* There are 14 restaurants in the Philippines and one restaurant in Qatar providing table booking facility to customers with good ratings but there is no effect on rating with other ones even if there is no such facility provided.

### Recommendations:

* Finally, the conclusion is that there is no effect on restaurant ratings.
* The conclusion is that there will be no effect on customer ratings even though there is no online delivery facility and table booking facility.

1. **Should the team keep the rate of cuisines higher? Will that affect the feedback? According to our data are the rates of cuisines and ratings, correlated?**
   1. **Reference:**



Rating vs Average Cost

6.00

5.00

4.00

3.00

2.00

1.00

0.00

0.00 5000.00 10000.00 15000.00 20000.00 25000.00 30000.00 35000.00

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**Approach:**

* + - I’ve created the scattered chart by considering the average rating of cuisines and their prices to understand the whether is there any correlation between rating and average cost.

Insights:

* + - In the scatter chart, Y-axis is ratings and X-axis is the average cost.
    - From the above chart we can clearly see that the rating and average cost have a positive correlation.



Recommendations:

* + - After all the analysis I found that the rates of cuisines and ratings are positively correlated.
    - Emphasize food quality, ambiance, and service instead of offering heavy discounts, since customers seem willing to pay more for a better experience.

### What is the distribution of the number of restaurants of different price ranges in all the countries?

* 1. To find the number of restaurants of different price ranges in all countries can be extracted by creating a pivot table and a chart from that.

|  |  |  |
| --- | --- | --- |
| **Reference:** |  | |
|  | **Price Range** | **Count of Restaurants** |
|  | 1 | 4443 |
|  | 2 | 3113 |
|  | 3 | 1408 |
|  | 4 | 586 |
|  | **Grand Total** | **9550** |

Count of Restaurants

586

1408

1

4443 2

3

3113 4

### Approach:

* + - To find out the number of restaurants of different price range in all countries I’ve created a pivot table and donut chart which shows the count of restaurants in different price ranges.

### Insights:

* + - From the table and chart, I found that both price range and count of restaurants are inversely proportional.



* + - The lowest count of restaurants which are in the highest price range and the highest count of restaurants are in the lowest price range.

### Recommendations:

* + - All the restaurants in the suggested cities are in high price range that is 4.
    - I strongly suggest that maintain the food price in high price range that is 4.
    - Because the data and analysis is clearly showing that the people here are ready to invest on food even price range is high.



### Explain your approach in brief for suggesting countries/cities in order to open new restaurants, if the objective and subjective questions would have not been given to assist you. [you have to give bullet pointers in order to answer this question]

* 1. The problem statement is to find the best cities in order to open new restaurants.

If the objective and subjective questions aren't given to me, I will follow the below approach.

* Firstly I’ll clean the data by removing duplicates, zero values, and missing values because In any analysis the first step should be cleaning the data to get the accurate results for decision making.
* Now I’ll try to find the best countries to open new restaurants based on the number of restaurants present in those countries.
* I'll extract the best cities or states present in the suggested countries to find best place to establish the new restaurant.
* Now I’ll put more focus on the customer ratings and cuisines which are famous in those cities. I’ll try to find the best cuisines on which we should keep more focus.
* I’ll try to understand customer behavior in those cities by analyzing the ratings given to the restaurants by customers.
* So, finally I can come to the conclusion that what are the best cities to open new restaurants from the given raw data.

This will be my step-by-step approach to find the best cities for suggesting new restaurants opening.

