**Answers for the given objective questions:**

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

* I utilized the Text to Columns function with delimiters to separate the date, day, and year in the column named- "Key date opening."
* Due to the presence of multiple countries and their respective currencies. I converted the average cost for two into a unified currency, specifically US dollars. This conversion was based on the respective currency exchange rates to ensure consistency and facilitate accurate evaluation of expenditures.
* Cuisine has some missing value in USA, I have filled with the most common cuisines in the USA.

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

* I have used VLOOKUP function to retrieve the country names from country description sheet using Country code as Lookup value.

1. **Create a table to represent the number of restaurants opened in each country.**

|  |  |
| --- | --- |
| **Country** | **Number of Restaurant opened** |
| Australia | 24 |
| Brazil | 60 |
| Canada | 4 |
| India | 8652 |
| Indonesia | 21 |
| New Zealand | 40 |
| Philippines | 22 |
| Qatar | 20 |
| Singapore | 20 |
| South Africa | 60 |
| Sri Lanka | 20 |
| Turkey | 34 |
| United Arab Emirates | 60 |
| United Kingdom | 80 |
| United States of America | 434 |
| **Grand Total** | **9551** |

* I have used Pivot to create the above table here restaurants are aggregated based on the country.

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

-The above graph represents the number of restaurants opened in each year of overall countries which are given in the data.

1. **What is the total number of restaurants in India in the price range of 4?**

|  |  |
| --- | --- |
| **Country** | **Number of restaurants** |
| India | 388 |

* By inserting the Pivots tables and applying filters and slicers in the given data. The restaurants opened in INDIA in the price range of 4 are **388** restaurants in different locations of India.

1. **According to the data, what is the average number of voters for the restaurants in each country?**

-The above Bar chart represents the average number of voters in each country and the Highest average voters are in Indonesia and the Least average voters are in Brazil.

**Answers for the given subjective questions:**

1. **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?**

* Based on the given data Australia, Brazil, New Zealand, Sri Lanka, United Arab Emirates, United Kingdom, United Staes of America are the countries with less competition which are having low ratings.
* And I would suggest to team that they can open new restaurants in these specific countries and which are visualised in the above Bar graph.

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

|  |  |  |
| --- | --- | --- |
| **Countries and Cities** | **1-2** | **2-3** |
| **Australia** |  | **3** |
| Mayfield |  | 1 |
| Montville |  | 1 |
| Paynesville |  | 1 |
| **Brazil** | **5** |  |
| Brasí\_lia | 1 |  |
| Rio de Janeiro | 1 |  |
| Sí£o Paulo | 3 |  |
| **New Zealand** |  | **1** |
| Auckland |  | 1 |
| **Sri Lanka** |  | **2** |
| Colombo |  | 2 |
| **United Arab Emirates** |  | **1** |
| Sharjah |  | 1 |
| **United Kingdom** | **1** | **1** |
| Birmingham | 1 | 1 |
| **United States of America** | **3** | **2** |
| Davenport | 2 |  |
| Gainesville |  | 1 |
| Mc Millan |  | 1 |
| Pocatello | 1 |  |

* Based on the given data by applying Aggregations with Key Performing Indicator, I would suggestion the team to open newer restaurants at these cities as the count is low and where the rating of restaurants is below the average rating.

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

|  |  |
| --- | --- |
| **Countries & cities** | **Average of Rating** |
| **Australia** | **2.63** |
| Mayfield | 2.9 |
| Montville | 2.4 |
| Paynesville | 2.6 |
| **Brazil** |  |
| Brasí\_lia | 1.0 |
| Rio de Janeiro | 1.0 |
| Sí£o Paulo | 1.1 |
| **New Zealand** | **2.3** |
| Auckland | 2.3 |
| **Sri Lanka** | **2.45** |
| Colombo | 2.45 |
| **United Arab Emirates** | **2.4** |
| Sharjah | 2.4 |
| **United Kingdom** | **2.8** |
| Birmingham | 2.8 |
| **United States of America** | **2.3** |
| Davenport |  |
| Gainesville | 2.2 |
| Mc Millan | 2.4 |
| Pocatello |  |

-The above table represents the Average rating for each restaurant that are from the suggested countries and cities.

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

|  |  |
| --- | --- |
| COUNTRY | Average cost for two in dollar |
| AUSTRALIA | **$16.38** |
| Brazil | **$28.28** |
| New Zealand | **$43.94** |
| Sri Lanka | **$7.36** |
| United Arab Emirates | **$44.93** |
| United Kingdom | **$37.77** |
| United States of America | **$26.15** |

* Based on the given data I have converted the different currency into single US dollar for the data consistency and proper evaluation of expenditures
* The cost for two in various countries has shown in the above table.

1. **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.**

|  |  |
| --- | --- |
| Restaurants | Rating (>3) |
| AUSTRALIA |  |
| Anchorage Cafe Restaurant Wine Bar | 3.6 |
| Beach Box Cafe | 3.7 |
| Whitebull Hotel | 3.5 |
| BRAZIL |  |
| Beirute | 3.7 |
| Brazilian American Burgers | 3.6 |
| Red Steak & Burger | 3.9 |
| Taypíç | 3.6 |
| NEW ZEALAND |  |
| Tucks and Bao | 3.5 |
| wagamama | 3.7 |
| SRI LANKA |  |
| CIOCONAT Lounge | 3.7 |
| Malay Restaurant | 3.5 |
| The Paddington | 3.6 |
| UNITED ARAB EMIRATES |  |
| Applebee's | 3.8 |
| Kamat | 3.9 |
| Peking Chinese Restaurant | 3.8 |
| UNITED KINGDOM |  |
| El Cartel | 3.8 |
| Handmade Burger Co. | 3.7 |
| Jamie's Italian | 4.1 |
| UNITED STATES OF AMERICA |  |
| Augsburg Haus | 3.9 |
| Beijing Cafe | 3.8 |

-The above table shows the name of the restaurants of each city that are bigger competitor from suggested countries and cities.

|  |  |  |
| --- | --- | --- |
| **Restaurants** | **(1-2)** | **(2-3)** |
| **Australia** |  | **3** |
| Pier 70 |  | 1 |
| Poets Cafe |  | 1 |
| Star Buffet |  | 1 |
| **Brazil** | **5** |  |
| Cantinho da Gula | 1 |  |
| Divino Fogí£o | 1 |  |
| Quiosque Chopp Brahma | 1 |  |
| Sandubas Cafí© | 1 |  |
| Super Grill | 1 |  |
| **New Zealand** |  | **1** |
| De Fontein Belgian Beer Cafe |  | 1 |
| **Sri Lanka** |  | **2** |
| Elite Indian Restaurant |  | 1 |
| Queen's Cafe |  | 1 |
| **United Arab Emirates** |  | **1** |
| Pizza Hut |  | 1 |
| **United Kingdom** | **1** | **1** |
| Damascena Coffee House | 1 |  |
| Pepe's Piri Piri |  | 1 |
| **United States of America** | **3** | **2** |
| Frick's Tap | 1 |  |
| Los Agaves | 1 |  |
| Nosh Mahal | 1 |  |
| Triangle Restaurant |  | 1 |
| Troll Tavern |  | 1 |

-The above table shows the name of the restaurants of each city and average rating that are low bracketed under (1-2) (2-3) rating from the suggested countries and cities.

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

|  |  |
| --- | --- |
| **COUNTRY** | **CUISINES** |
| Australia | Pizza, Bar Food |
| Brazil | Brazilian, Bar Food |
| New Zealand | Cafe, European, Mexican |
| Sri Lanka | American, Fast Food, Steak, Beverages |
| United Arab Emirates | Indian, North Indian, Mughlai, Biryani |
| United Kingdom | Steak, Scottish, British |
| United States of America | American, BBQ |

* Each country has diversified cuisines so I have selected the cuisine which has highest rating and most common cuisines from the given data.

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

|  |  |
| --- | --- |
| **Online Delivery** | **Average of Rating** |
| Yes | 3.29 |
| No | 2.75 |

|  |  |
| --- | --- |
| **Table Booking** | **Average of Rating** |
| Yes | 3.48 |
| No | 2.81 |

- From the given data I have inserted the pivot table and compared the rating with that has online delivery and has Table booking.

- We can go with both Online delivery and Table booking

from those two, Table booking has a bit higher rating.

1. What is the distribution of several restaurants of different price ranges in all the countries?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Distribution of Restaurant** | **PRICE RANGES** | | | | |
| **COUNTRY** | **1** | **2** | **3** | **4** | **Grand Total** |
| Australia | 4 | 14 | 5 | 1 | 24 |
| Brazil | 2 | 7 | 16 | 35 | 60 |
| Canada | 0 | 3 | 0 | 1 | 4 |
| India | 4295 | 2858 | 1111 | 388 | 8652 |
| Indonesia | 0 | 1 | 20 | 0 | 21 |
| New Zealand | 3 | 4 | 17 | 16 | 40 |
| Philippines | 0 | 1 | 12 | 9 | 22 |
| Qatar | 0 | 1 | 5 | 14 | 20 |
| Singapore | 0 | 1 | 5 | 14 | 20 |
| South Africa | 0 | 4 | 17 | 39 | 60 |
| Sri Lanka | 0 | 6 | 11 | 3 | 20 |
| Turkey | 0 | 11 | 18 | 5 | 34 |
| United Arab Emirates | 0 | 9 | 29 | 22 | 60 |
| United Kingdom | 4 | 28 | 32 | 16 | 80 |
| United States of America | 136 | 165 | 110 | 23 | 434 |
| **Grand Total** | **4444** | **3113** | **1408** | **586** | **9551** |

- India has the higher number of restaurants in Price range-1 and as well other prices also India higher number of restaurants comparatively with other countries.

- Canada has its least number of restaurants comparatively with all price ranges.