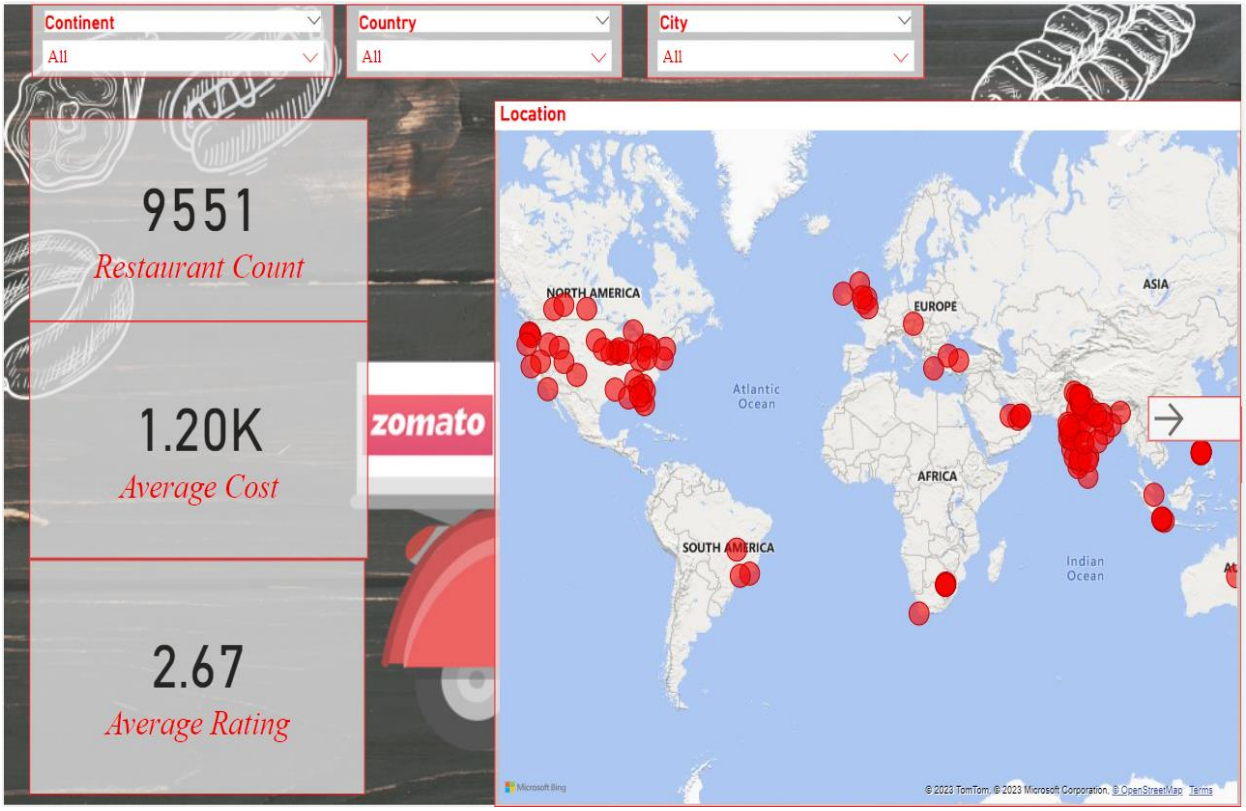
Data Manipulation and Reporting with Power BI

The aim is to construct a consolidated and interactive Power BI report that will allow to quickly assess the required data.

First, a given dataset is imported in Power BI. Using Power BI Query, Data cleaning and transformation is done as per requirement. With the help of DAX, new columns and measures were created. Final report is explained below.

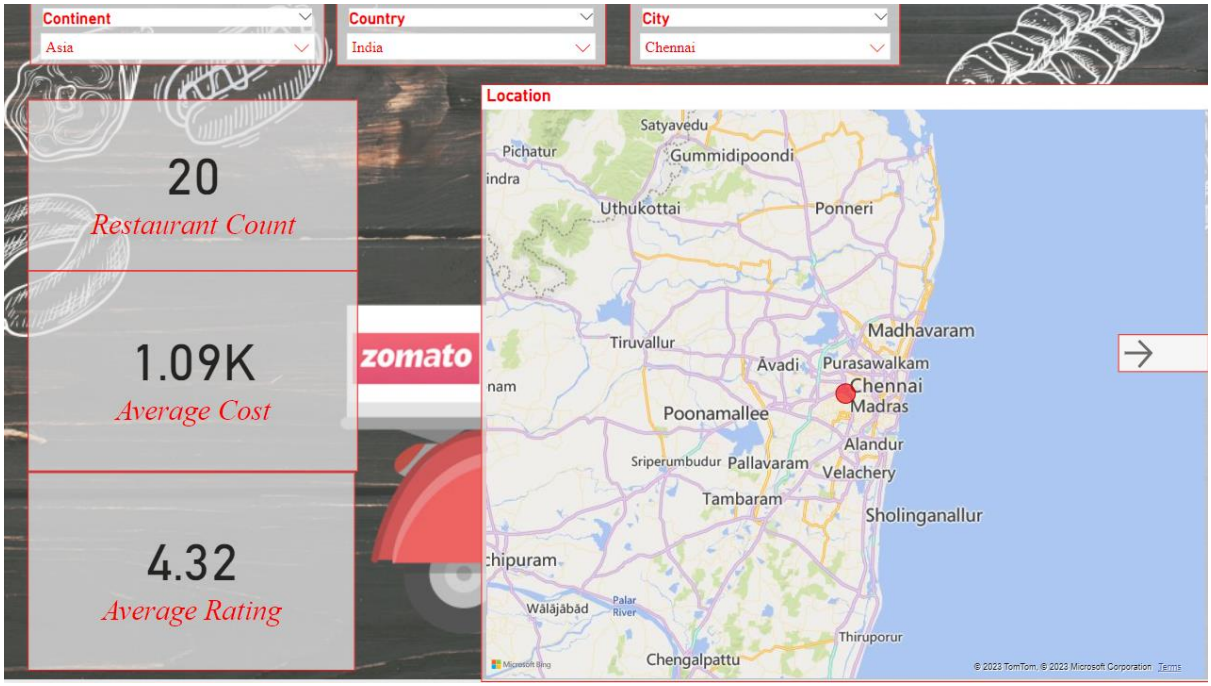
Output 1:

This's the first page of project report where you can see a complete global analysis of Zomato restaurant using map visual.



Output 2:

Here, the desired location is filled in all slicers. You're able to view Restaurant Count, Average Cost, Average Rating and Destination for your selection. Navigation arrow is added to switch between the pages.

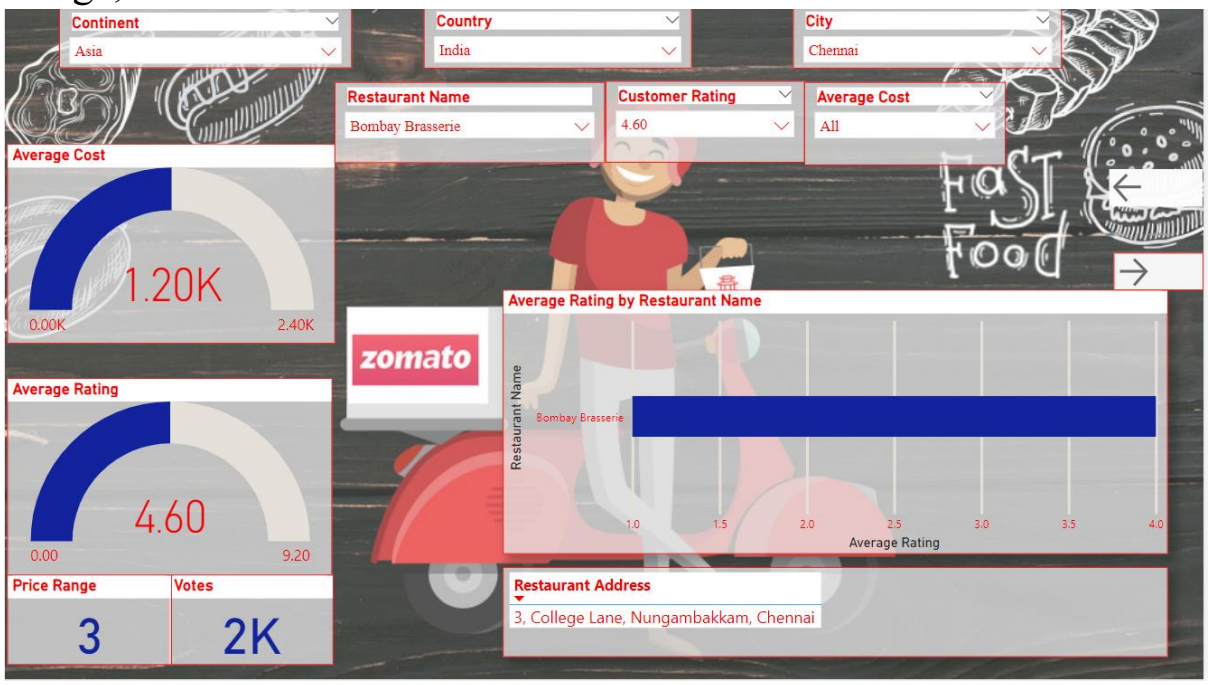


Output 3:

In the next page, you can analyze the report based on performance. Here, a selection is based on customer rating. It shows the restaurants which is in rating of 4.6. Bar charts shows you all the available restaurants.

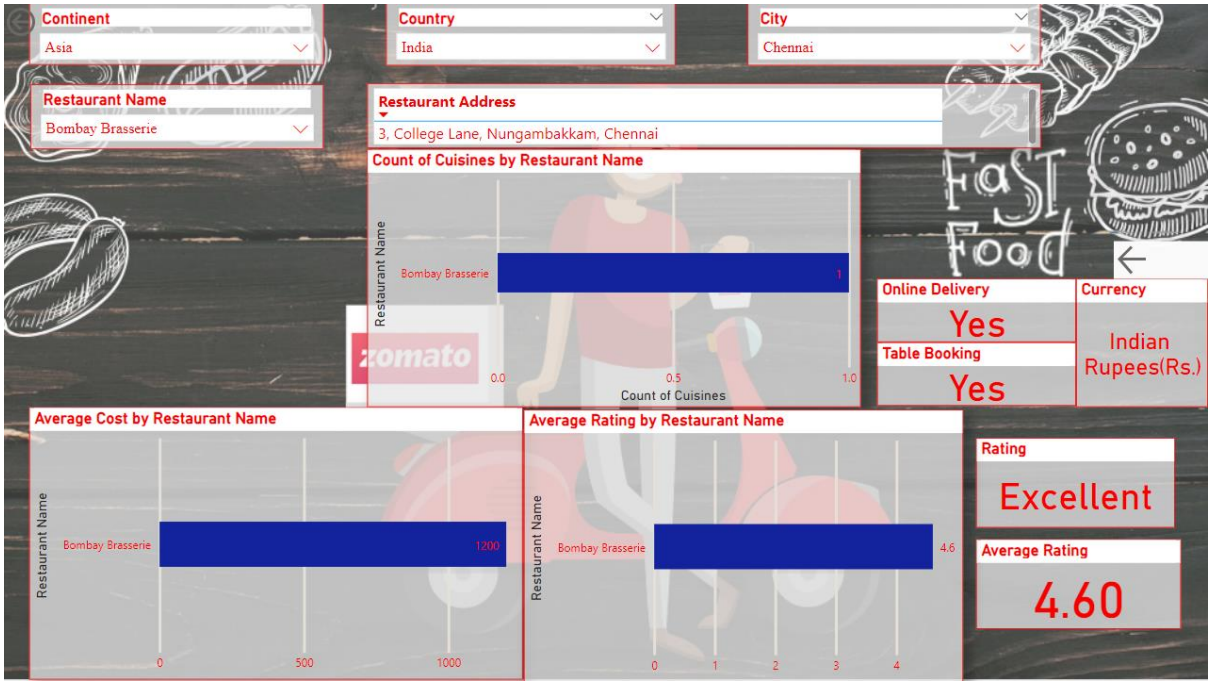
Output 4:

For instance, the restaurant named “Bombay Brasserie” is chosen. Then you can find Average Cost, Average Rating, Price Range, Votes and Address for a selected one.



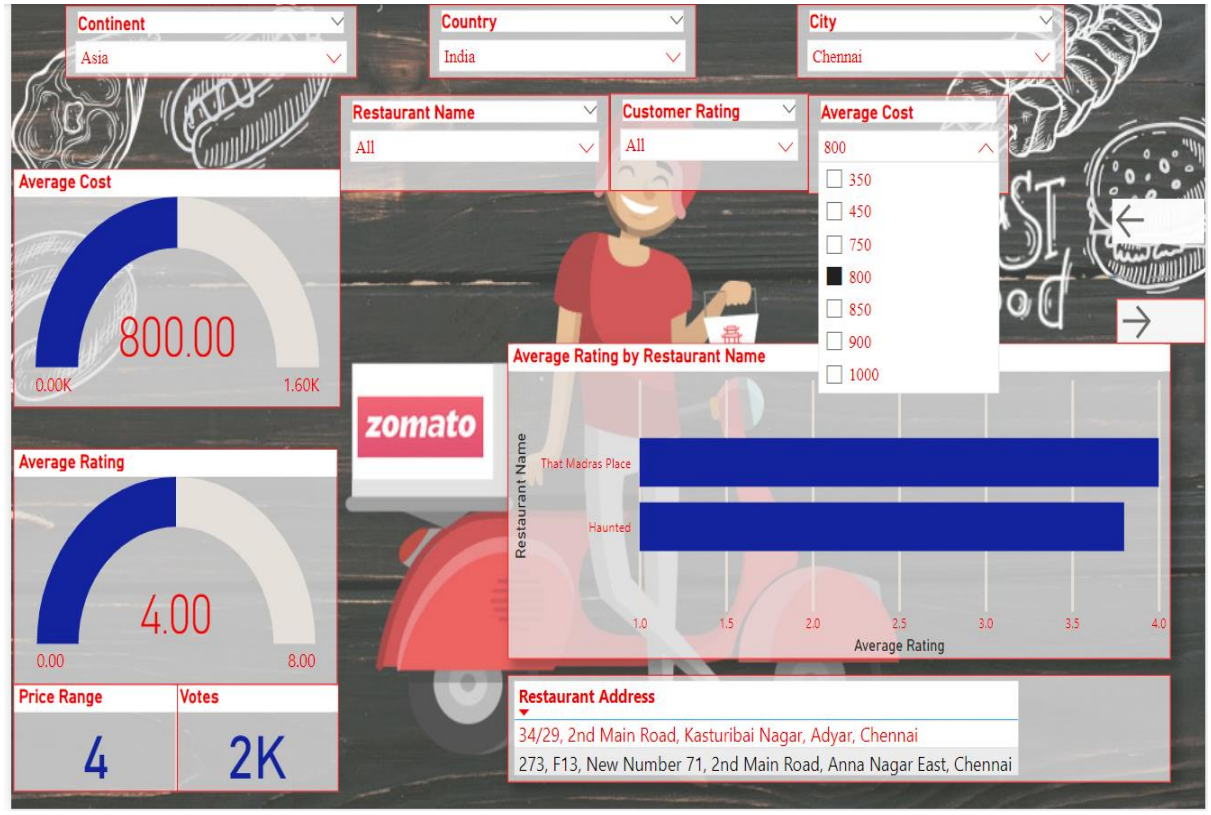
Output 5:

- In the next page, you’re able to view the number of cuisines available in that restaurant in the form of bar chart. Similarly, remaining bar charts shows an average cost and average rating based on selected restaurant. Restaurant address is also mentioned.
- You can check Online delivery and Table bookings are available or not. Average ratings, Ratings and Currency were provided in the form of card visual. Using navigation arrow, you can switch back.



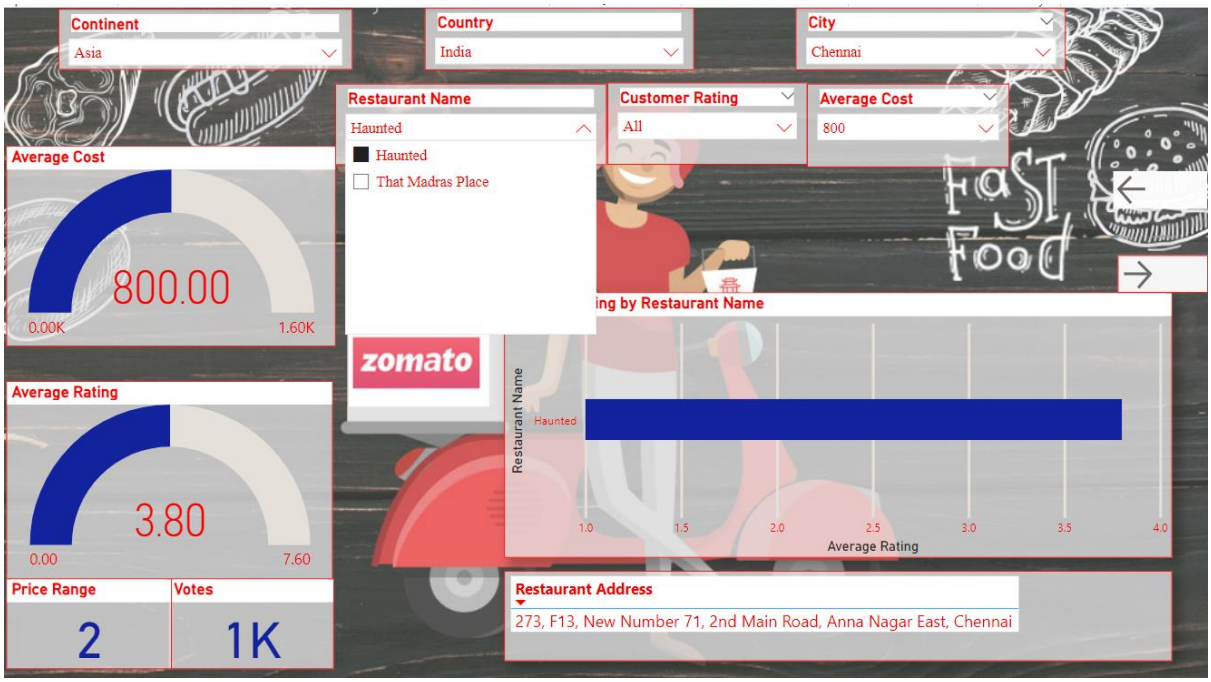
Output 6:

Now using navigation arrow, I switched to the previous page. I cleared the previous selection. Again, I made a selection using average cost. i.e., Based on average cost, I am able to view the restaurants available which are “That Madras Place” and “Haunted”.



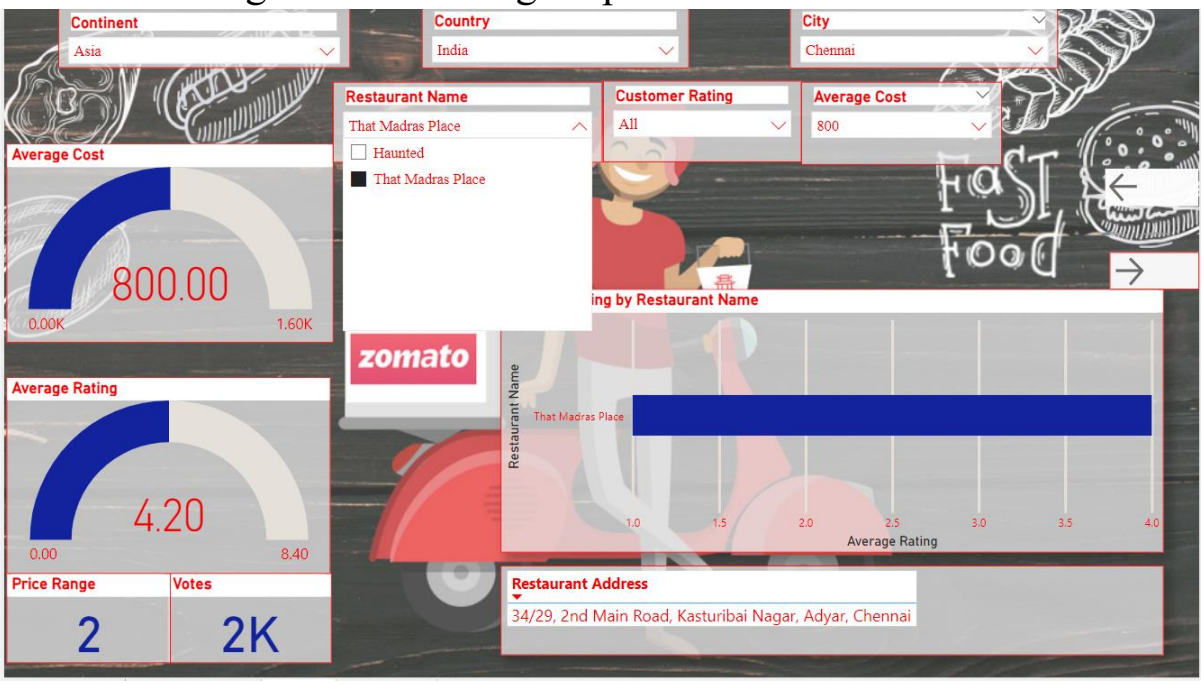
Output 7:

For instance, the restaurant named Haunted is selected. You'll get Average cost, Average Rating, Price range, Votes and address for Haunted Restaurant.



Output 8:

Else, if you choose the restaurant which is "That Madras Place". You'll get the following output.

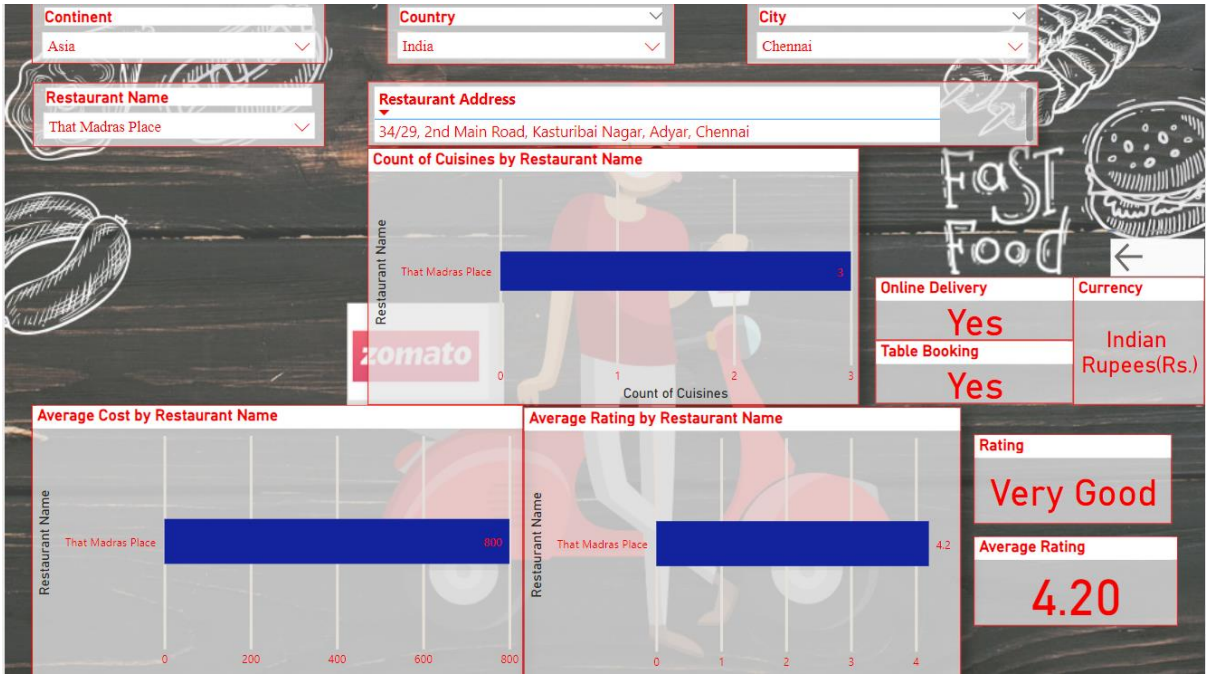


Output 9:

In next page, your data is updated automatically. i.e., “Haunted” Restaurant.

Output 10:

In next page, your data is updated automatically. i.e., “That Madras Place” Restaurant.

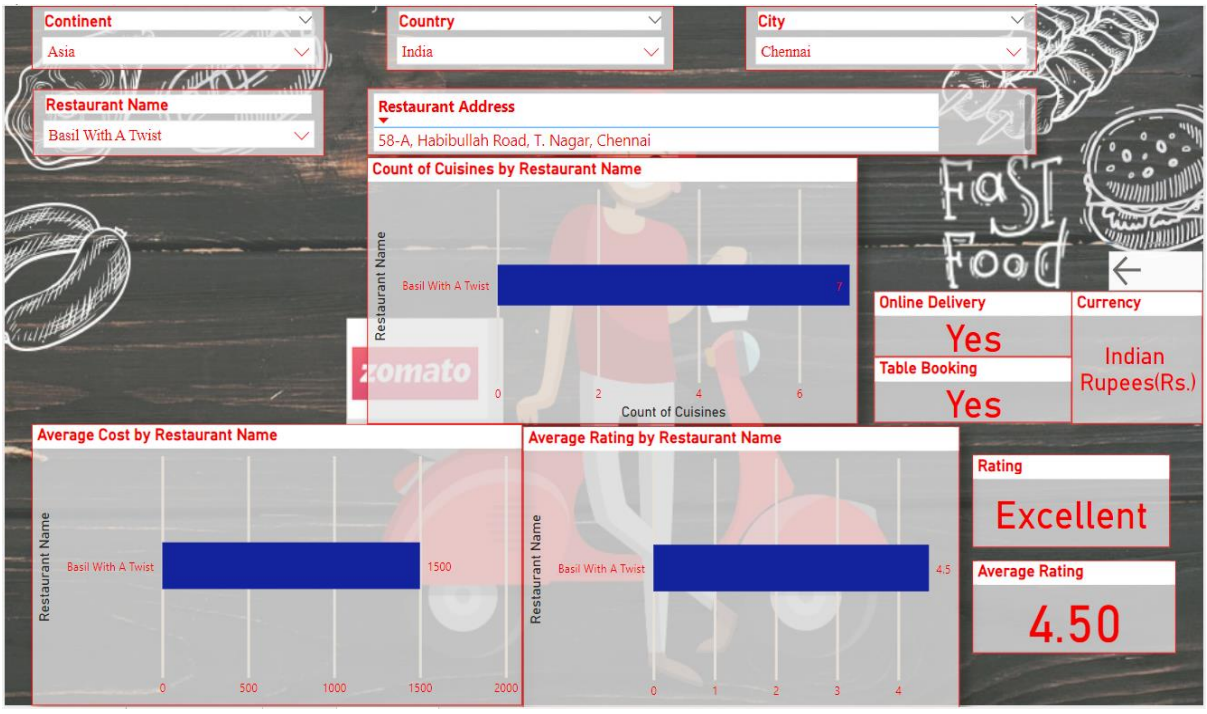


Output 11:

You can also identify a restaurant with the most cuisines served by using Bar chart. Then you can make a selection.

Output 12:

For instance, “Basil with a Twist” is selected. Then the following data is updated.



Source code:

In the beginning, a given dataset is imported in Power BI. Using Power BI Query, Data cleaning and transformation is done as per requirement. With the help of DAX, new columns and measures were created. Some of the functions are listed below,

1. Append Query is used.
2. Split column is used
3. Remove duplicates is used
4. Replace values is used.
5. Removed blank columns.
6. Included new tables.
7. Rows were split and trimmed.
8. DAX is also used. i.e.,

```
Rating Color = IF('Fact Table'[Aggregate rating]>4.5,"Dark Green",IF('Fact Table'[Aggregate rating]>4,"Green",IF('Fact Table'[Aggregate rating]>3.5,"Yellow",IF('Fact Table'[Aggregate rating]>3,"Orange",IF('Fact Table'[Aggregate rating]>0,"Red","Not Rated")))))
```

9. New measures were included.

```
Average Cost = AVERAGE('Fact Table'[Average Cost for two])

Average Rating = AVERAGE('Fact Table'[Aggregate rating])

Cuisine Count = DISTINCTCOUNT('Cuisines by Restaurant'[Cuisines])

Restaurant Count = DISTINCTCOUNT('Fact Table'[Restaurant ID])
```

10. Custom column is also added. Column is separated and tables were included. So, Zomato users can access the report in both web browser and in mobile device successfully.