

**User Rating of a restaurant plays a crucial role in selecting a restaurant or ordering the food from the restaurant.**

**Write a short detail analysis of how the rating is affected by restaurant due following features: Plot a suitable graph to explain your inference.**

### **1. Number of Votes given Restaurant**

**NOTE: Line graphs are use full for checking the trends so I have used in few graphs to check the trend and based on that I made some analysis.**

Answer: To get the idea of rating and how many votes they might have got, I have applied data compression technique as

number of votes can be so huge for a particular restaurant. To compress the data I have first added all the votes by

the rating and maintain total restaurants which will help me to figure out the average voting for each restaurants.

So first I have made one dictionary which will hold the rating as key and total number of votes & restaurant count as a

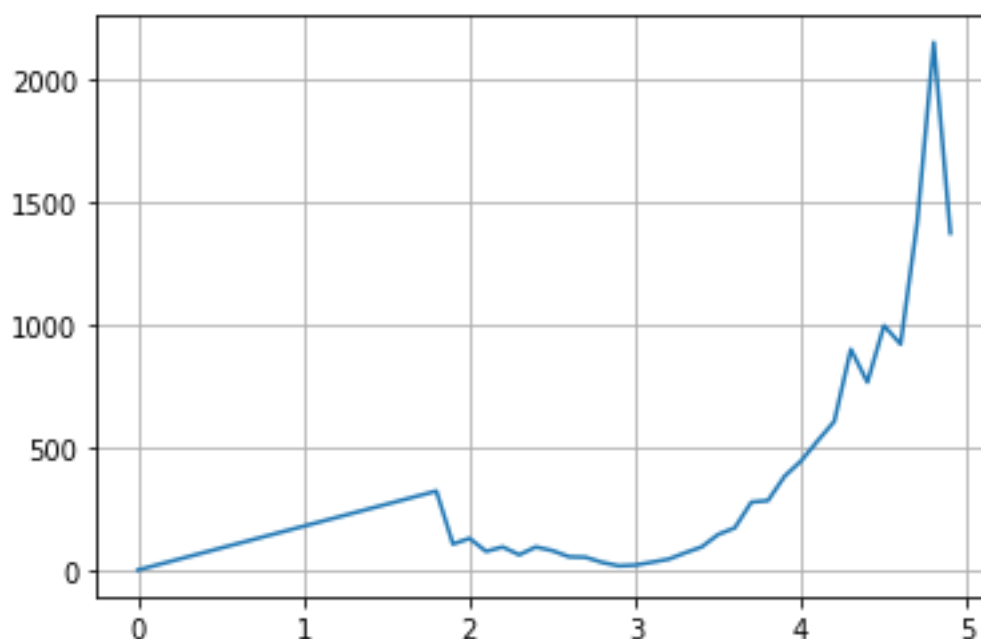
value i.e a list 0th index is total number of votes and 1st restaurant count. Once I get these detail I can make average

by doing  $\text{total\_votes} // \text{no\_restaurants}$  so for each restaurants we will get the compressed voting numbers. After plotting

in the graph we can see that those restaurants get more vote they usually got good rating i.e 4-5 and voting range is

500 - 2000. Now if we see the low rating then we can find that there are less voting as compare to 4-5 rating range voting.

From the above explanation I can say that if we go with large number of voting for a restaurant they we will get good food usually.



## Restaurant serving more number of cuisines.

NOTE: Data Compression is applied as numbers are huge and it might not fit in the graph properly.

Answer: I have applied the same technique just in this case and for below cases I haven't used any function to

get the desired result. Here I have twicked the scenario little because we need to check with the number of cuisines

so I made number of cuisines as key and I have stored all the rating given to particular number of cuisines and side

by side I have stored the number of restaurants. After doing this, I am finding the avgerage rating for that particular

number of cuisines right. And rating will lie between the min rating and max rating got by number of cuisines. To find

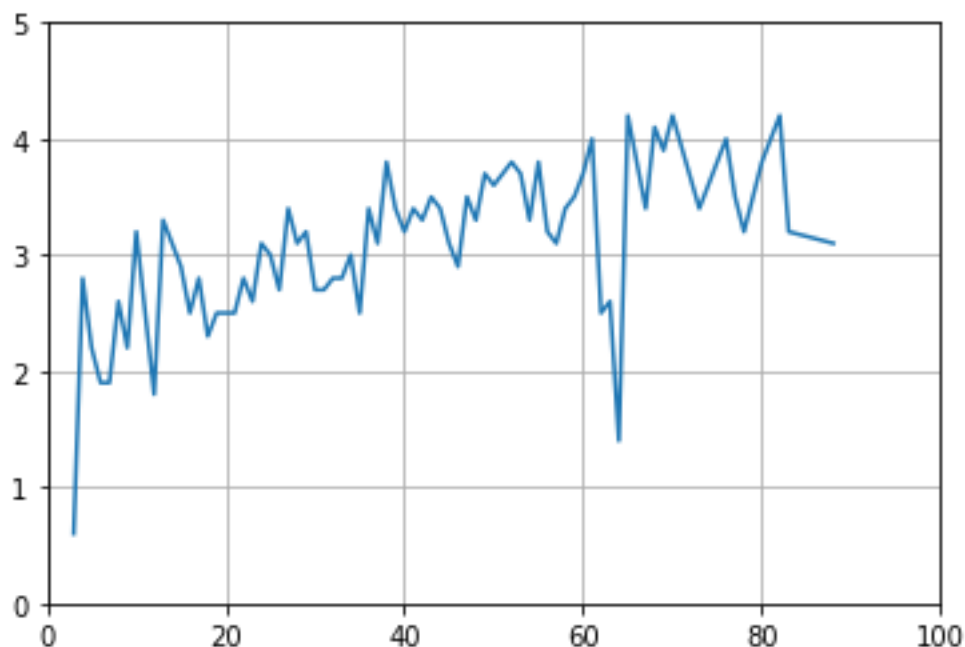
out the average rating I have used  $\text{total\_rating} / \text{restaurant\_count}$ . After plotting the detail in the graph we can notice

the higher number of cuisines offered more is the rating. 60 - 80 range has got the higher ratings. But still there are

some restaurants after offering ample number of cuisines still they couldn't get good rating.

So it will be better to

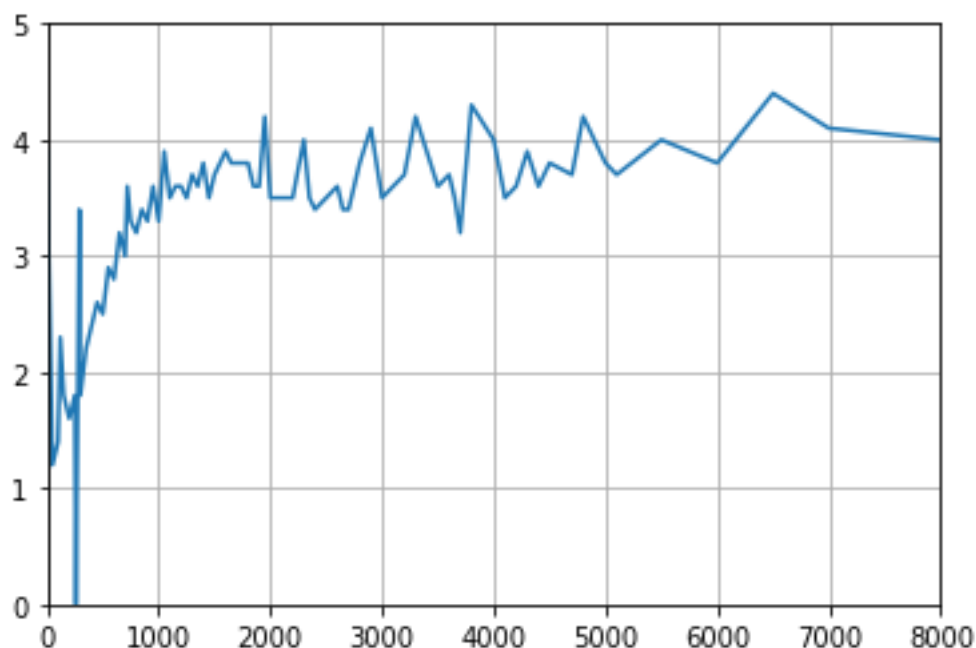
go with more number cuisines offered by a restaurant.



## Average Cost of Restaurant

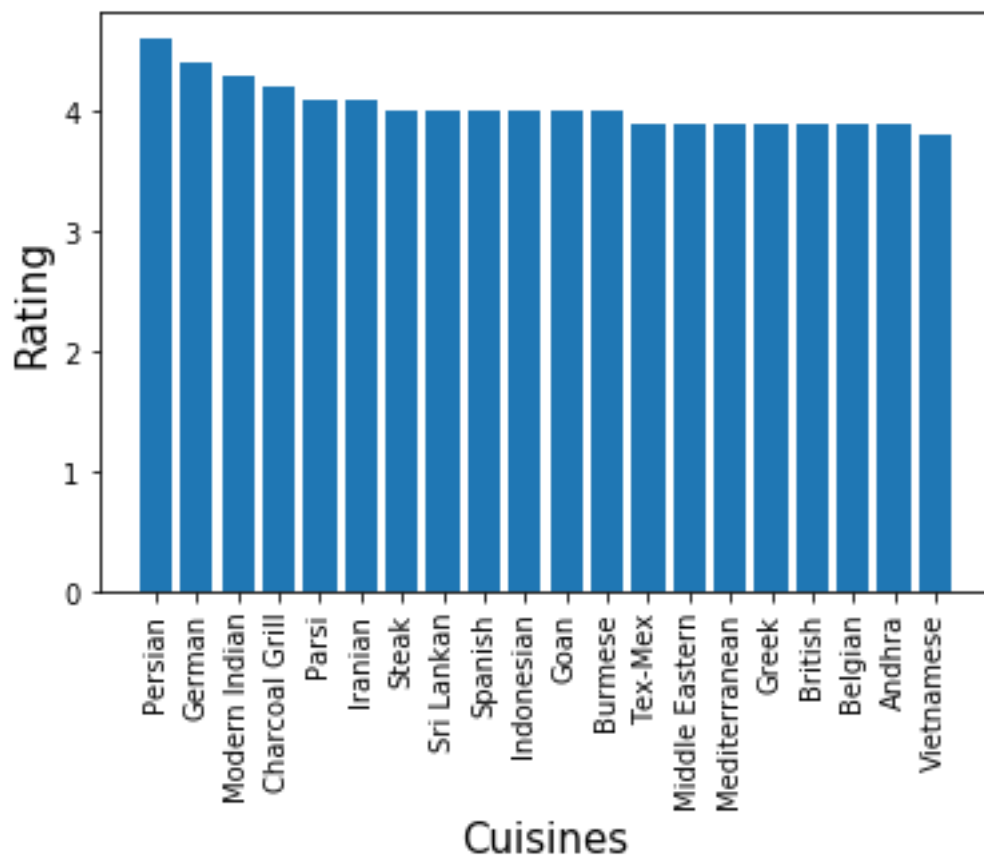
NOTE: Data Compression is applied as numbers are huge and it might not fit in the graph properly.

Answer: As I have mentioned earlier, I have applied the same logic so I am not re-iterating the same thing. Here I have used cost of two as the key and store all the ratings for a particular cost and side by side I have store the count of restaurants in order to get the average. Once all the data stored in the dictionary I have found the average by  $\text{total\_ratings} / \text{restaurant\_counts}$ . After plotting the graph it is indicating that more cost of two more is the rating of the restaurant. When cost of two gets more than 2000 the rating becomes stagnant i.e we can say that there is no big fluctuation. So if we select a restaurant wherein cost of two is in between 1000 - 2000 that will provide us good food.



**Restaurant serving some specific cuisines.**

Answer: As earlier, here I have made one dictionary which is storing cuisines and ratings and the count of restaurants, wherein cuisine works as the key and total\_ratings and number of restaurant. First I have summed up all the ratings and then I have divided by the total number of restaurants, which is helping me to get the average rating. Once I got the average rating for the cuisines I have sorted them in descending order based on their ratings and after that I have plotted them in bar graph. From bar graph we can see that those restaurants offering Persian, German, Modern Indian cuisines get the good ratings. So if we good to a restaurants wherein these cuisines are being offered then there is likely to get good food.



**Find the weighted restaurant rating of each locality and find out the top 10 localities with more weighted restaurant rating?**

Answer: As we need to find the weighted ratings for each locality I have used one dictionary which will store the locality names and it will store all the values of all restaurants present in that locality. As formulation has been mentioned, I have

applied that formula to get the weighted rating. Once that has been done, I have plotted the graph and from that graph

we can see these are the top 10 localities:

- 1 Hotel Clarks Amer, Malviya Nagar
- 2 Aminabad
- 3 Friends Colony
- 4 Powai
- 5 Kirlampudi Layout
- 6 Express Avenue Mall, Royapettah
- 7 Deccan Gymkhana
- 8 Banjara Hills
- 9 Sector 5, Salt Lake
- 10 Riverside Mall, Gomti Nagar

