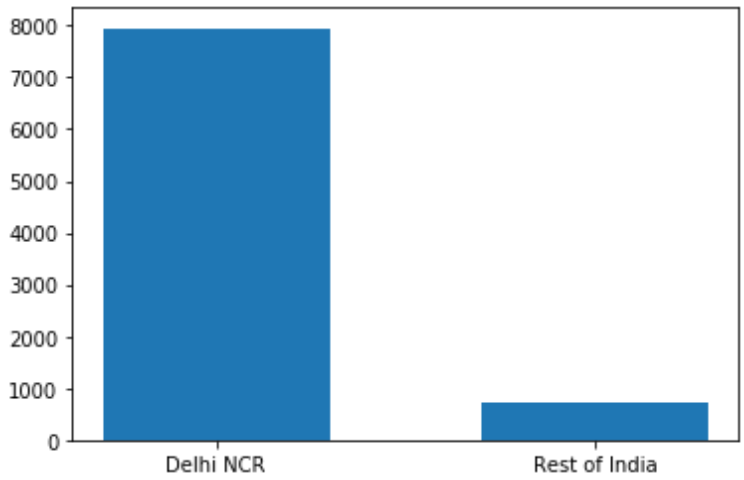
Zomato API Project-2

Que 1.1: Plot the bar graph of number of restaurants present in Delhi NCR vs Rest of India.

Sol.



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Que 1.2 Find the cuisines which are not present in restaurant of Delhi NCR but present in rest of India.Check using Zomato API whether this cuisines are actually not served in restaurants of Delhi-NCR or just it due to incomplete dataset.

Sol. Following 4 cuisines are not present in Delhi NCR restaurants according to given dataset.

1. German
2. Malwani
3. BBQ
4. Cajun

However, when we search in API we found that 'BBQ' and 'Malwani' are present in Delhi NCR restaurants. It is not present in dataset due to incomplete dataset.

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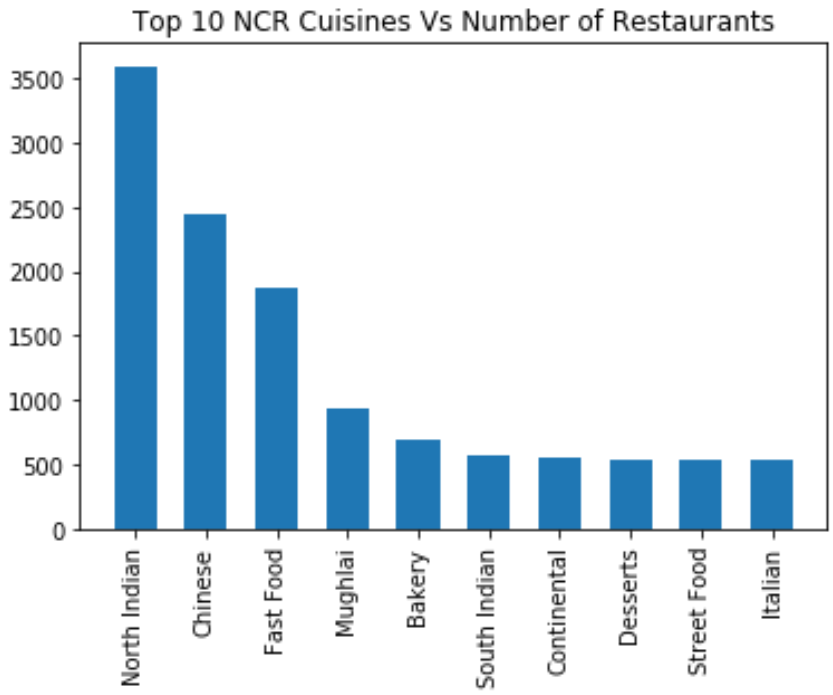
Que 1.3 Find the top 10 cuisines served by maximum number of restaurants in Delhi NCR and rest of India.

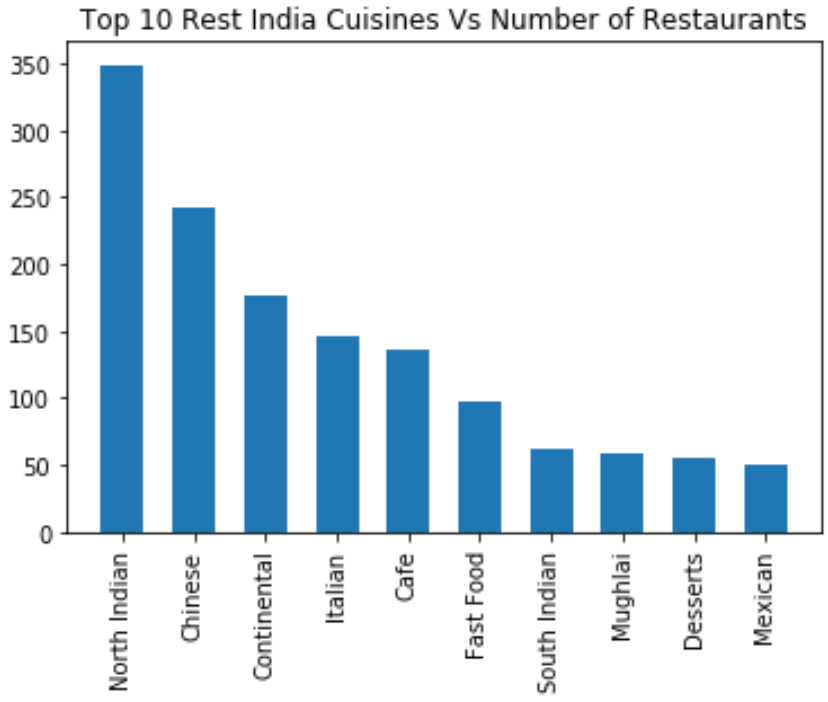
Sol. Top 10 cuisines served by maximum number of restaurants in Delhi NCR are:

1. North Indian - 3597
2. restaurants Chinese - 2448 restaurants
3. Fast Food - 1866 restaurants
4. Mughlai - 933 restaurants
5. Bakery - 697 restaurants
6. South Indian - 569 restaurants
7. Continental - 547 restaurants
8. Desserts - 542 restaurants
9. Street Food - 538 restaurants
10. Italian - 535 restaurants



Top 10 cuisines served by maximum number of restaurants in rest of India are:

1. North Indian - 349 restaurants
2. Chinese - 242 restaurants
3. Continental - 177 restaurants
4. Italian - 147 restaurants
5. Cafe - 136 restaurants
6. Fast Food - 97 restaurants
7. South Indian - 62 restaurants
8. Mughlai - 59 restaurants
9. Desserts - 55 restaurants
10. Mexican - 50 restaurants



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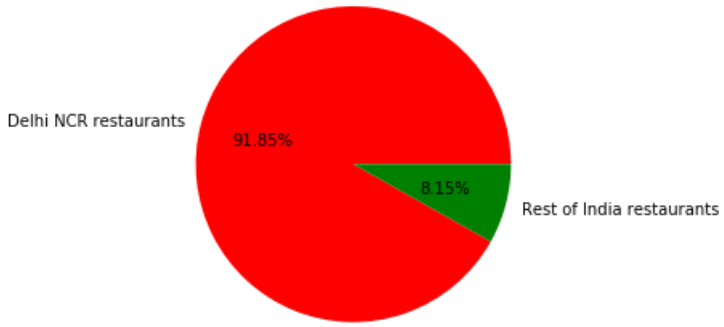
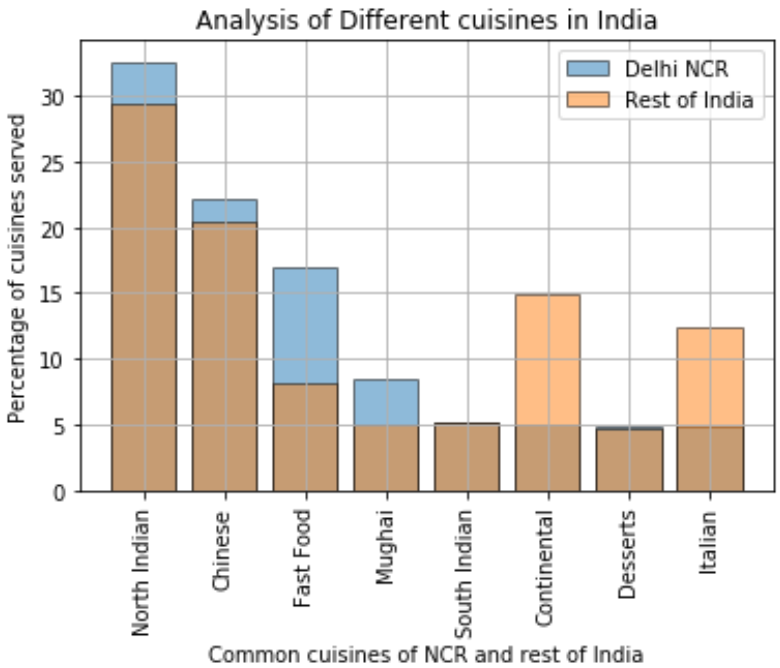
Que 1.4 Write a short detailed analysis of how cuisine served is different from Delhi NCR to Rest of India. Plot the suitable graph to explain your inference.

Sol.

1. 91.85% Indian restaurants serving cuisines are present in Delhi NCR only.



2. All cuisines which are served in any part of India are also served in Delhi NCR except 2 cuisines which are 'German' and 'Cajun'.
3. If we plot cuisines which are common in top 10 cuisines served in Delhi NCR and Rest of India, our plot will looks like:

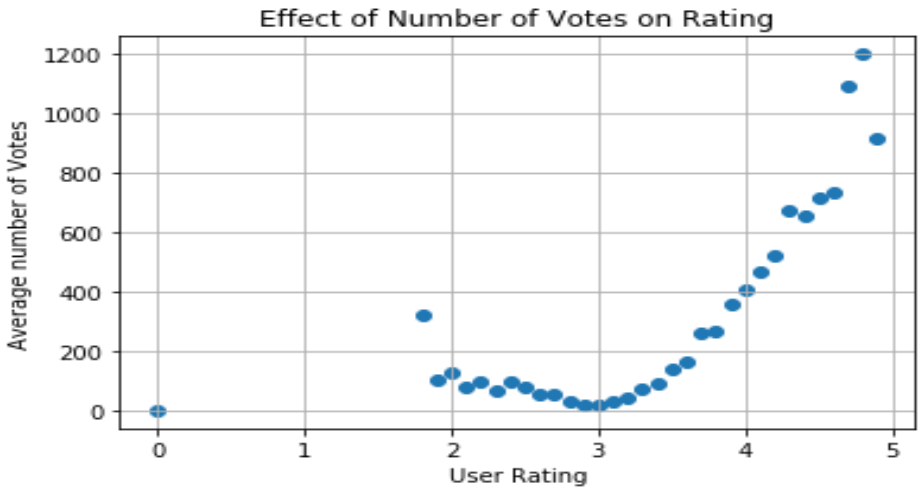


Que 2. User Rating of a restaurant plays a crucial role in selecting a restaurant or ordering the food from the restaurant.

Que 2.1 Write a short detail analysis of how the rating is affected by restaurant due following features: Plot a suitable graph to explain your inference.

a) Number of Votes given Restaurant
b) Restaurant serving more number of cuisines
c) Average Cost of Restaurant
d) Restaurant serving some specific

Sol 2.1.a To show effect of number of votes on ratings; We plot a graph between average number of votes given to restaurant having particular rating



Conclusions from above plot :

- General trend shows that ratings increases with average votes.
- Restaurants having higher ratings and high number of votes represents those restaurants where users prefer to visit
- Restaurants having average number of votes (0-200) and user ratings(2-3) represent bad restaurants where users don't want to go.

Code in separate file

Sol 2.1.b Effect of Restaurant serving more number of cuisines on Ratings :

To show effect of number of cuisines on ratings; we plot graph between number of cuisines and average rating of restaurants which served that particular number of cuisines.

Conclusion :

- From above graph it is clear that as number of cuisines served by restaurant increases, average rating of restaurants generally increases (except for 8).

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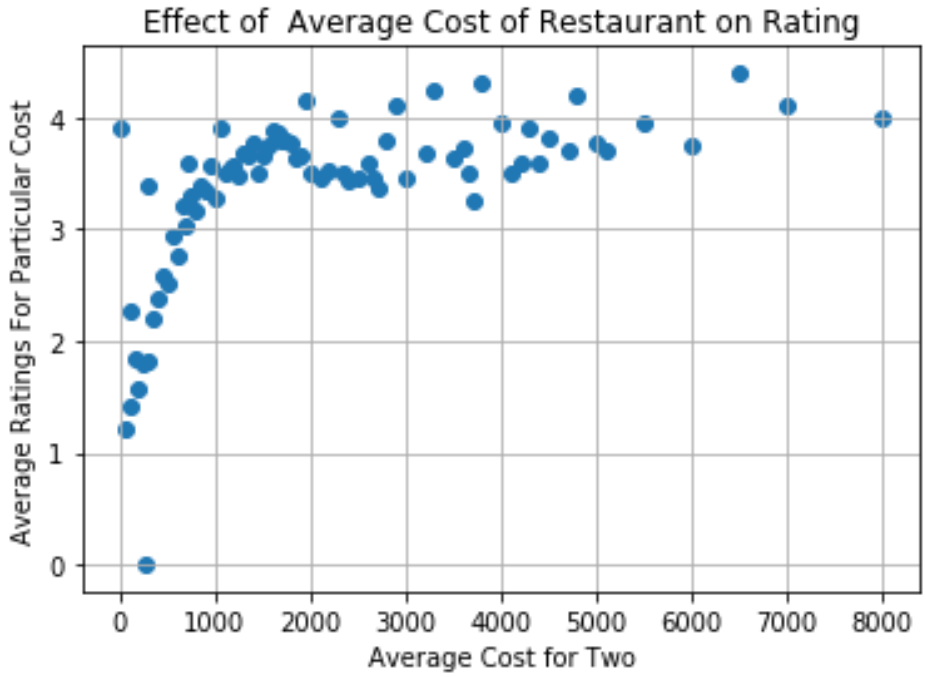
Sol 2.1.c Effect of Average Cost of Restaurant on Rating

To show the effect of average cost on ratings, we plot graph between average cost of restaurants and mean of ratings of restaurants having that particular average cost.



Conclusions:

- From above plot it is clear that, as average cost increases ratings also increases.
- But after some value of cost (around 1500) ratings becomes constant. That means increasing average cost does not affect the ratings.

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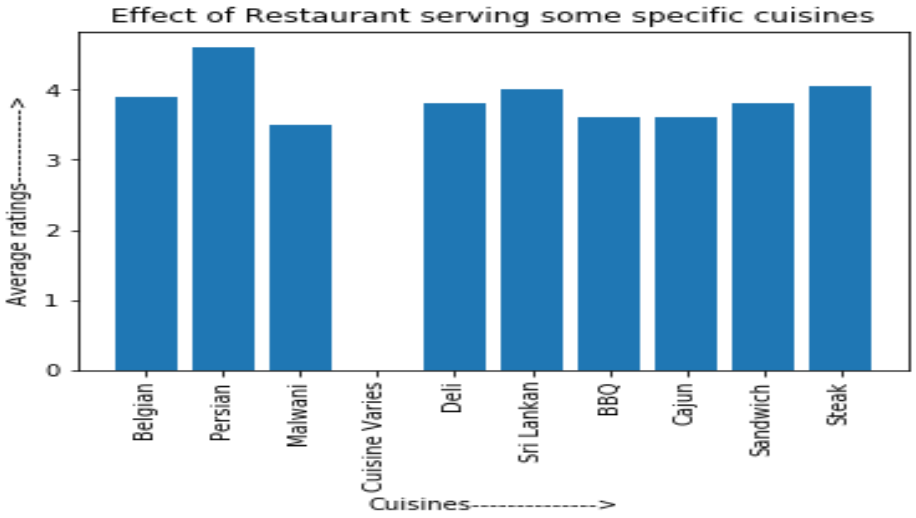
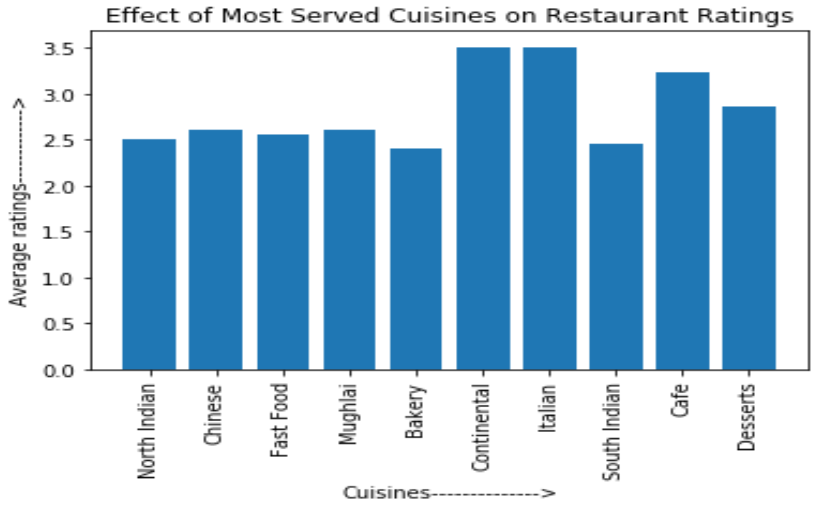
Sol 2.1.d Effect of Restaurant serving some specific cuisines on Rating

To find effect of specific cuisines, we first find 10 cuisines which are least served i.e (specific cuisines) and then find average rating of restaurants serving that cuisines.



- From above we can say that restaurants serving some specific cuisines generally have ratings more than 3.5 except with cuisine(Cuisine Varies).

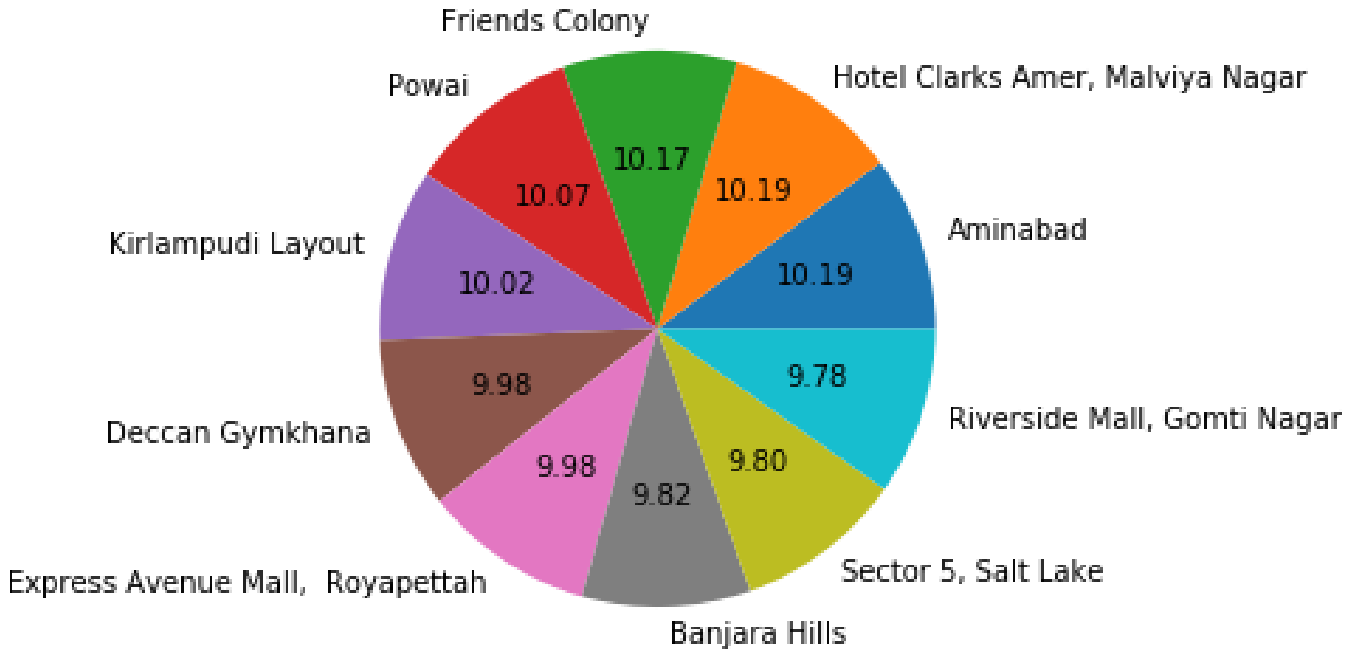
Similarly we can find the effect of 10 most served cuisines on restaurant rating



Que 2.2 Find the weighted restaurant rating of each locality and find out the top 10 localities with more weighted restaurant rating?

Weighted Restaurant Rating=Σ (number of votes * rating) / Σ (number of votes) .

Sol.



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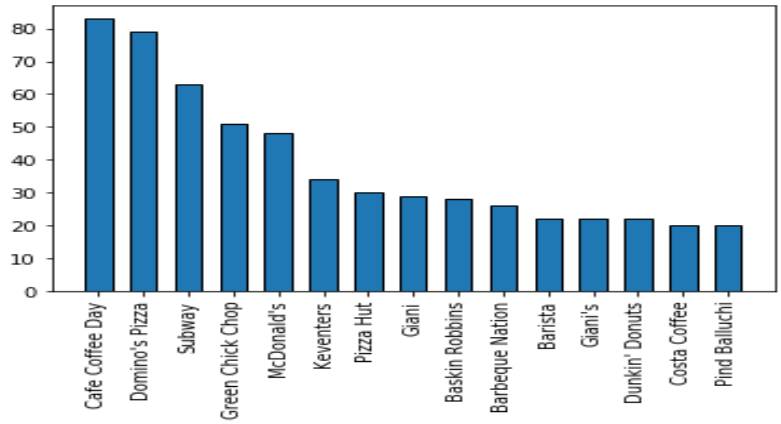
Que 3. Visualization

Consider only Indian restaurants in this analysis

Que 3.1 Plot the bar graph top 15 restaurants have a maximum number of outlets.

Sol.



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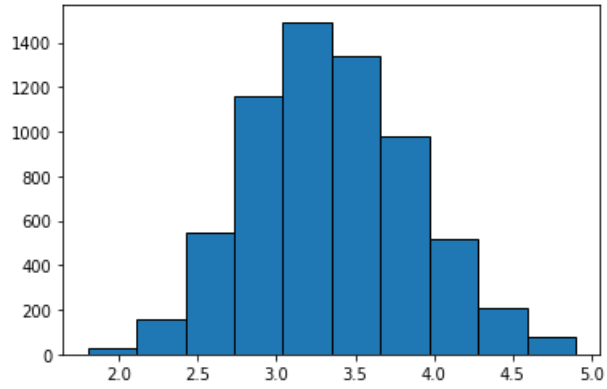
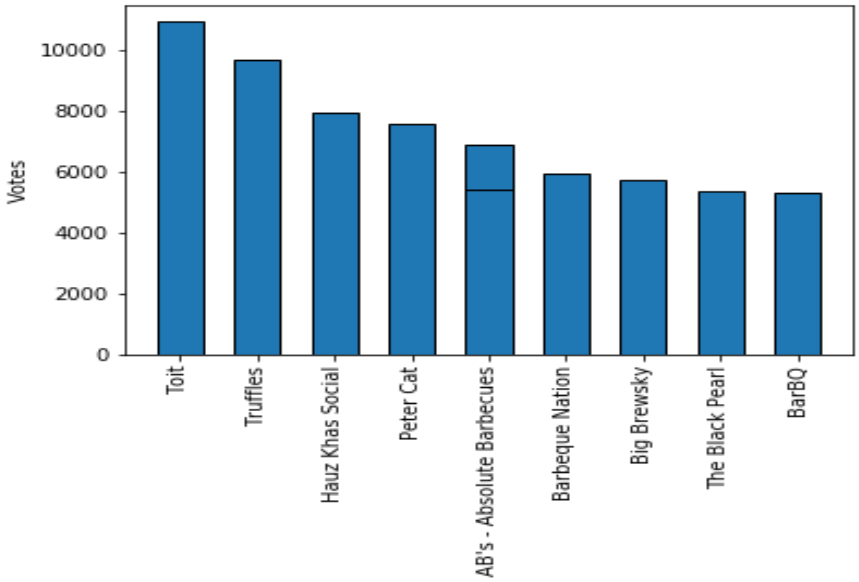
Que 3.2 Plot the histogram of aggregate rating of restaurant(drop the unrated restaurant).

Sol.



Que 3.3 Plot the bar graph top 10 restaurants in the data with the highest number of votes.

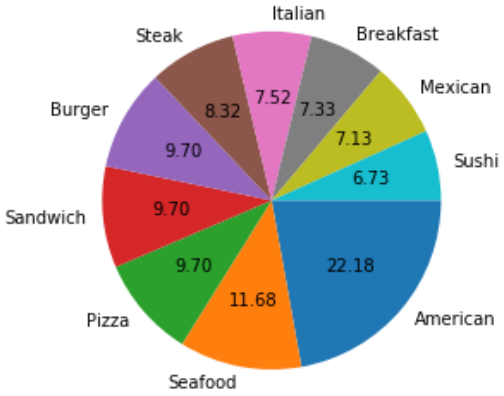
Sol.



Here 2 outlets of "AB's - Absolute Barbecues" are in top 10. So 2 bins are overlapped. But number of votes are different in overlapped bins which is differentiated by black line in bin corresponding to "AB's - Absolute Barbecues".

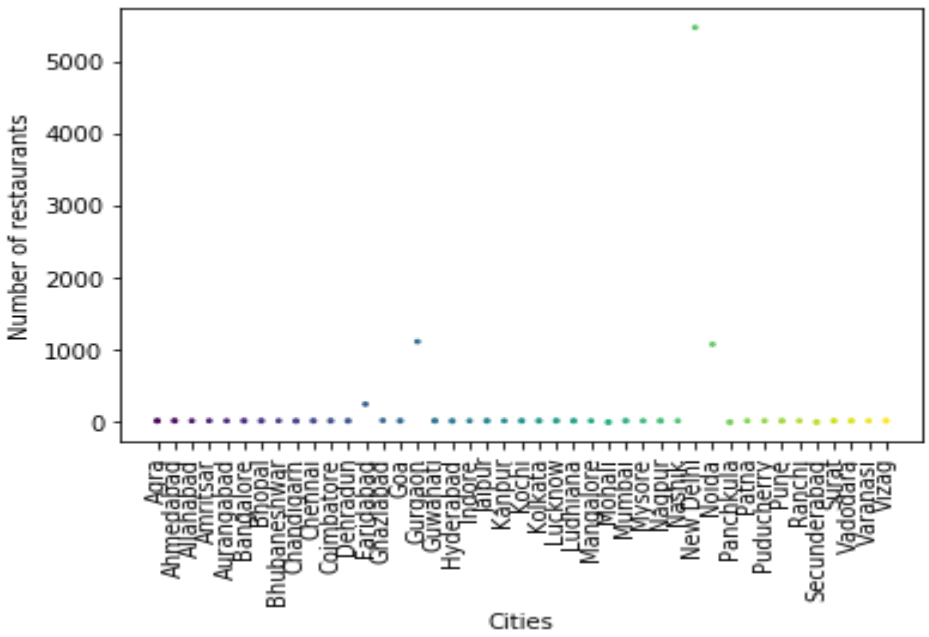
Que 3.4 Plot the pie graph of top 10 cuisines present in restaurants in the USA.

Sol.



Que 3.5 Plot the bubble graph of a number of Restaurants present in the city of India and keeping the weighted restaurant rating of the city in a bubble.

Sol.



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