

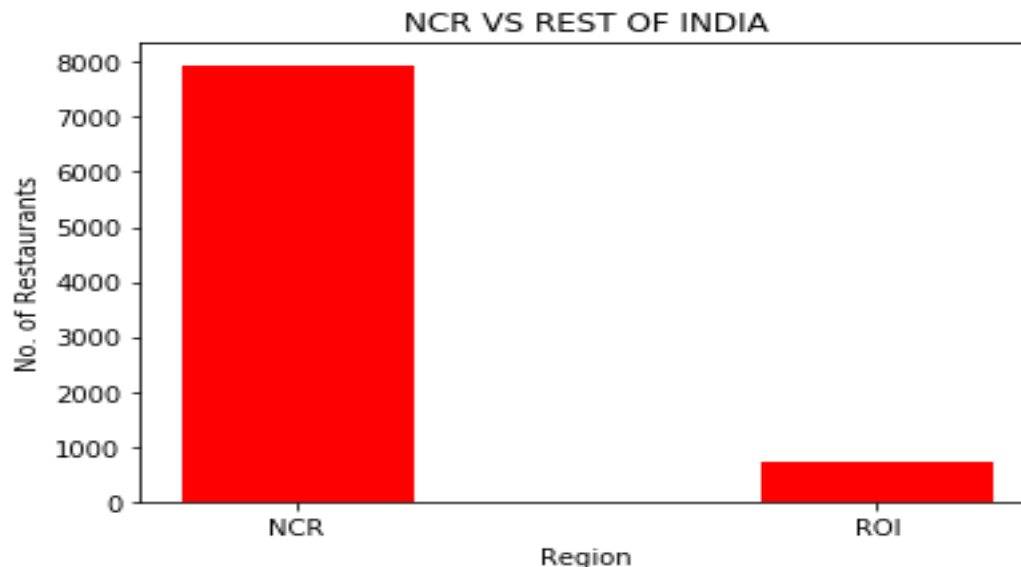
ZOMATO PROJECT

Q1

Q1. The dataset is highly skewed toward the cities included in Delhi-NCR. So, we will summarize all the other cities in Rest of India while those in New Delhi, Ghaziabad, Noida, Gurgaon, Faridabad to Delhi-NCR. Doing this would make our analysis turn toward Delhi-NCR v Rest of India.

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

Graph:-



Justification:-

From the result we can see the dataset contains the information of NCR in abundance than the rest of India, since the gap is too high and it also signifies that the restaurants in NCR can be more than the other state.

Ans:-

Restaurant in DELHI-NCR = 7947

Restaurant in Rest of India = 705

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.

Justification:-

This answer states these are the cuisines which we don't get in NCR=[**German, Malwani, BBQ, Cajun**] and after checking the api we can say that **BBQ and Malwani** are present in the complete dataset and **German and Cajun** are not present in the complete dataset.

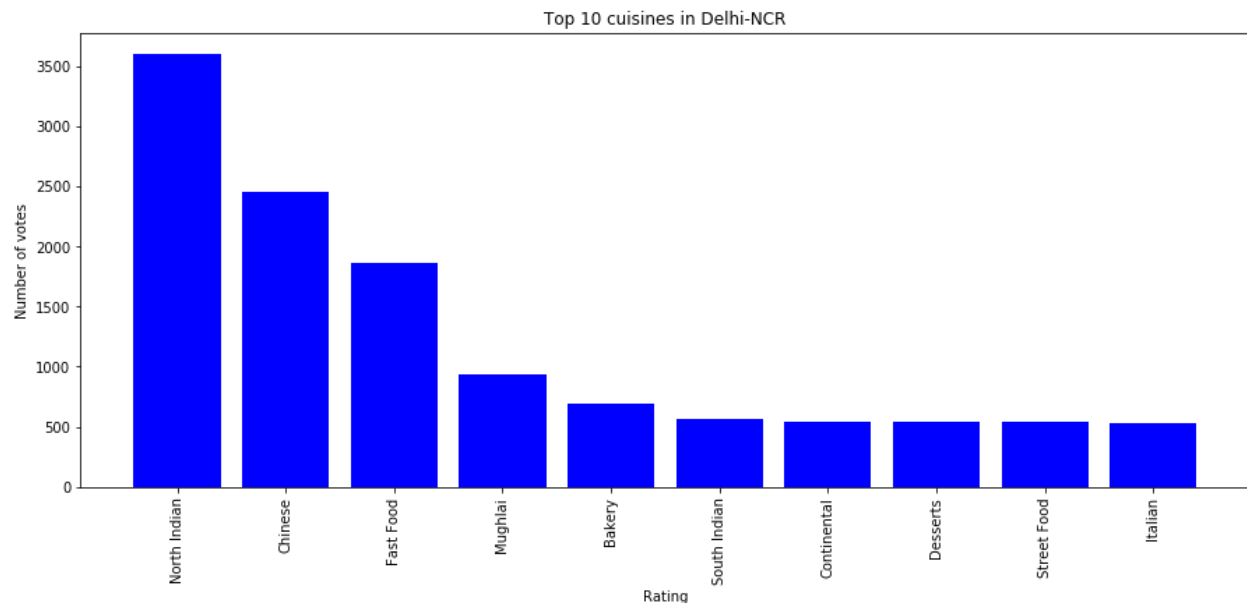
Ans:-

List of cuisines not present in DELHI-NCR(dataset) : **German, Malwani, BBQ, Cajun**
Common List of cuisines found in the dataset of DELHI API : **BBQ, Malwani**

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

DELHI-NCR

Graph:-



Justification:-

From the results we can say that the North Indian ,Chinese food and South Indian are more preferable for DELHI-NCR people since North Indian food consists of “**Daal-Roti**” which is mostly eaten by all over the India and for the change we eat **Chinese(Noodles)** and **South Indian(Dosa,Vada etc)** which is pretty famous.

With this there are other cuisines like **Fast-Food, Bakery ,Street Food** is mostly eaten by peoples since it is the capital so it is ahead of in technology and other aspects and many big companies have their office here which makes life hectic and people have to depend on fast food and they come in so much variety so people wants to eat it

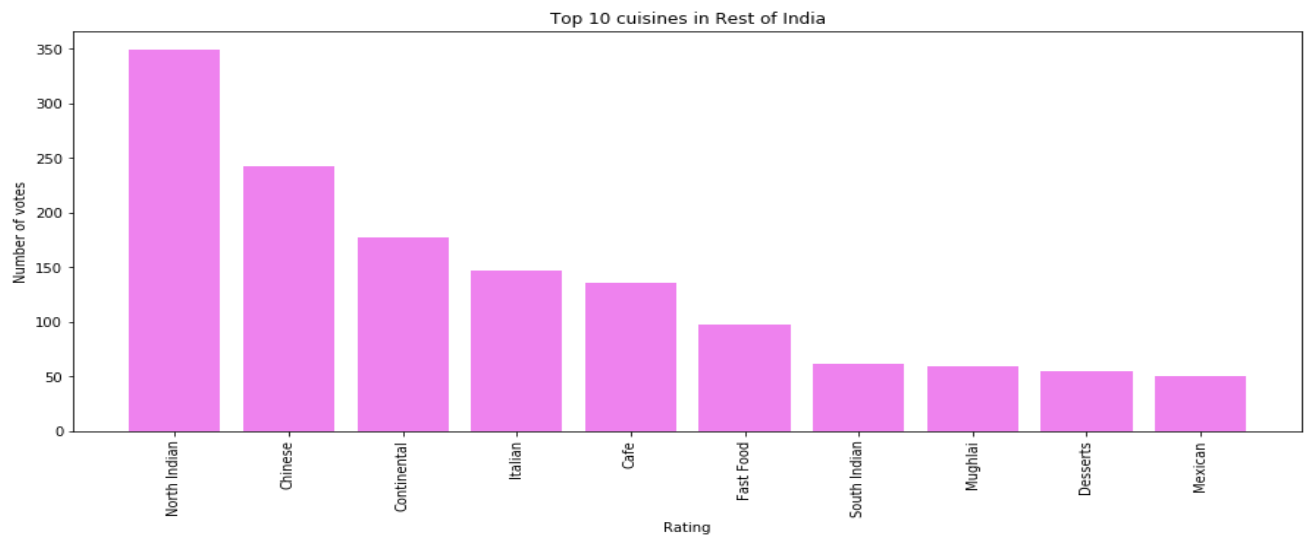
Ans:-

North Indian 3597

Chinese	2448
Fast Food	1866
Mughlai	933
Bakery	697
South Indian	569
Continental	547
Desserts	542
Street Food	538
Italian	535

REST OF INDIA

Graph:-



Justification:-

By looking at the graph we can say just like DELHI-NCR North Indian, Chinese are also pretty famous in Rest Of India. North Indian is like a national food of India; it has to be famous. Same with the Chinese, it is eaten by everyone because it is one of the oldest cuisines of Foreign. That is why it is pretty famous, and outside Delhi, people also like to try new cuisines such as Italian or Mexican, which doesn't hold much value in DELHI-NCR.

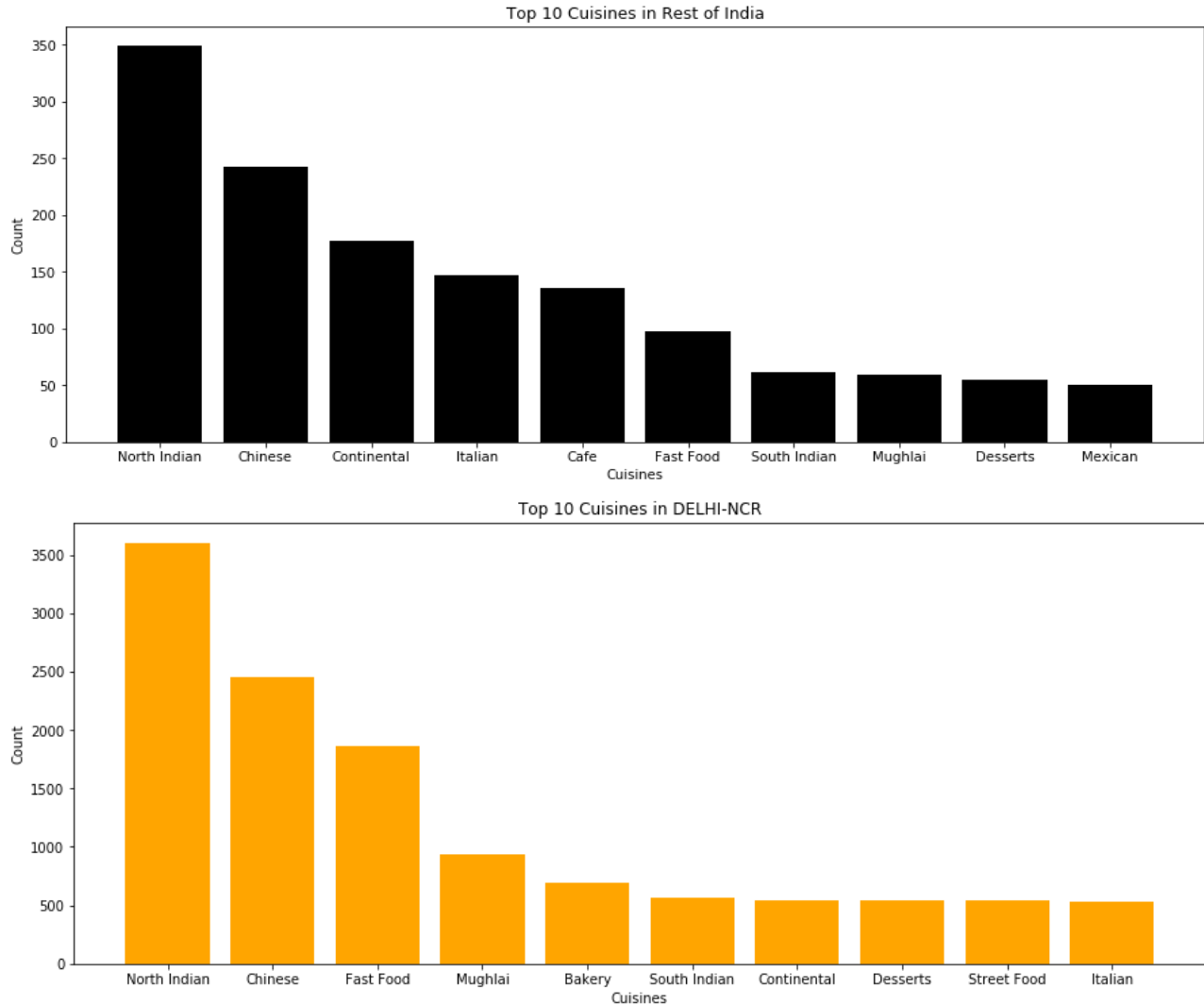
Ans:-

North Indian	349
Chinese	242
Continental	177

Italian 147
Cafe 136
Fast Food 97
South Indian 62
Mughlai 59
Desserts 55
Mexican 50

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.

Graph:-



Justification:-

From the above result we can say that the **North Indian** and **Chinese** cuisines are the most popular in both the results or you can say eaten by most of the peoples and from the NCR results we can infer details like **Street food, Mughlai** and **fast food** are consumed by more people in NCR then other places since life in these places are so fast so no one have much time to cook food and the variations of these are also good so that is why these are famous.

On the other hand in rest India **Continental, Italian** and **Café** are more prominent which shows that people prefer different country cuisines and we can say these are dinner dishes rather than something eaten fast or at roadside which implies that instead of eating different types of cuisines daily they prefer to take their time and eat it with relaxation like a dinner or something and the variation of street food is less than in NCR.

ANS:-

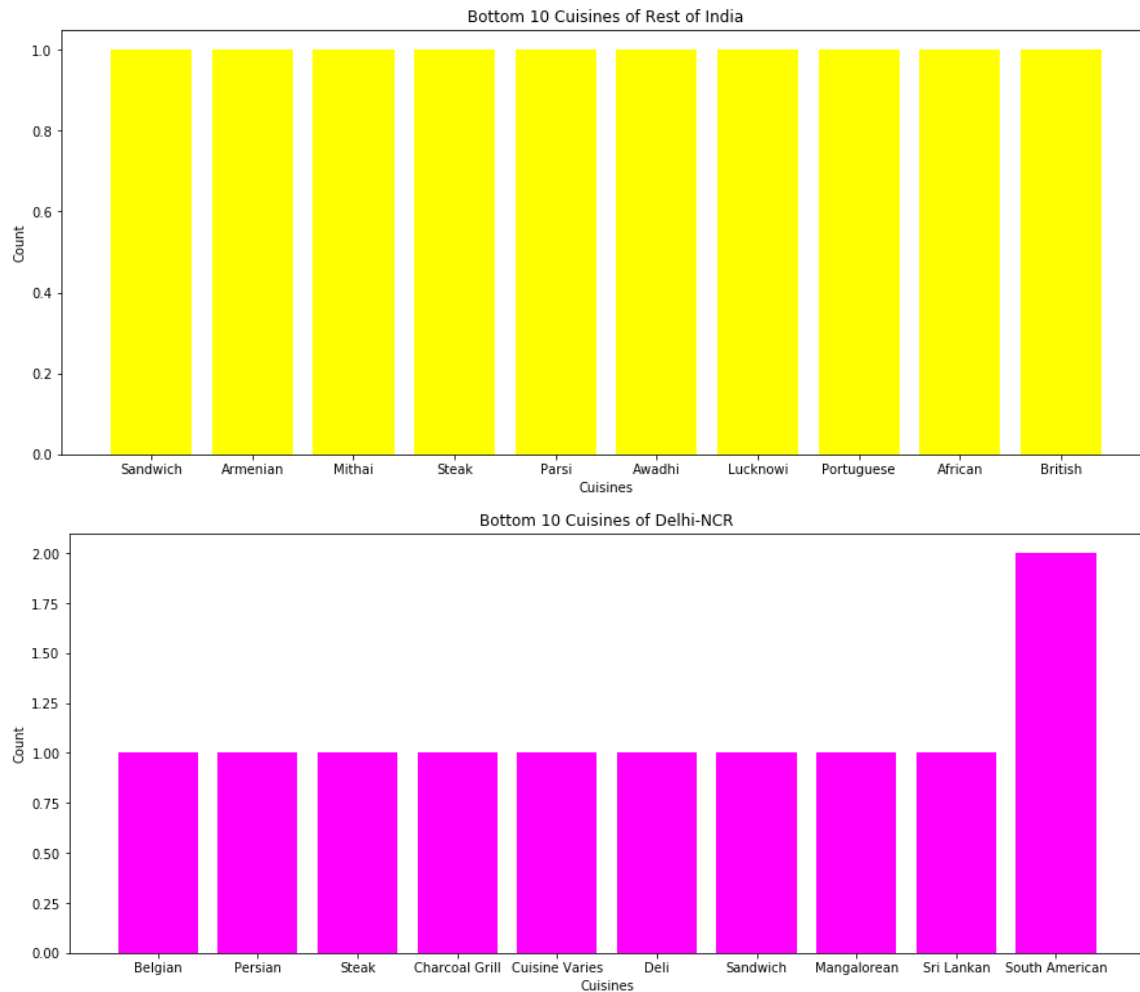
Top 10 Cuisines in Delhi-NCR

-----	----
North Indian	3597
Chinese	2448
Fast Food	1866
Mughlai	933
Bakery	697
South Indian	569
Continental	547
Desserts	542
Street Food	538
Italian	535
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Top 10 Cuisines in Rest of India

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North Indian	349
Chinese	242
Continental	177
Italian	147
Cafe	136
Fast Food	97
South Indian	62
Mughlai	59
Desserts	55
Mexican	50

Graph:-



Justification:-

From the above 2 graphs we can get the information of the lowest cuisines which are least present in the list of cuisines or you can say which is less ordered in **Delhi-NCR** we can see than **Belgian , Persian , steak** are not much popular because either they are not good or more like people don't know much about them so that is why there consumption is low they are either present in restaurants where the varieties are more or the customers like them.

On the other hand in **Rest of India, Sandwich , Armenian and Mithai** are not much ordered which implies that people can make these things at home or they can get them from local vendors which may have a better taste and at better prizes

Ans:-

Bottom 10 Cuisines of Delhi-NCR

-----	-
Belgian	1
Persian	1
Steak	1
Charcoal Grill	1
Cuisine Varies	1
Deli	1
Sandwich	1
Mangalorean	1
Sri Lankan	1
South American	2
-----	-

Bottom 10 Cuisines of Rest of India

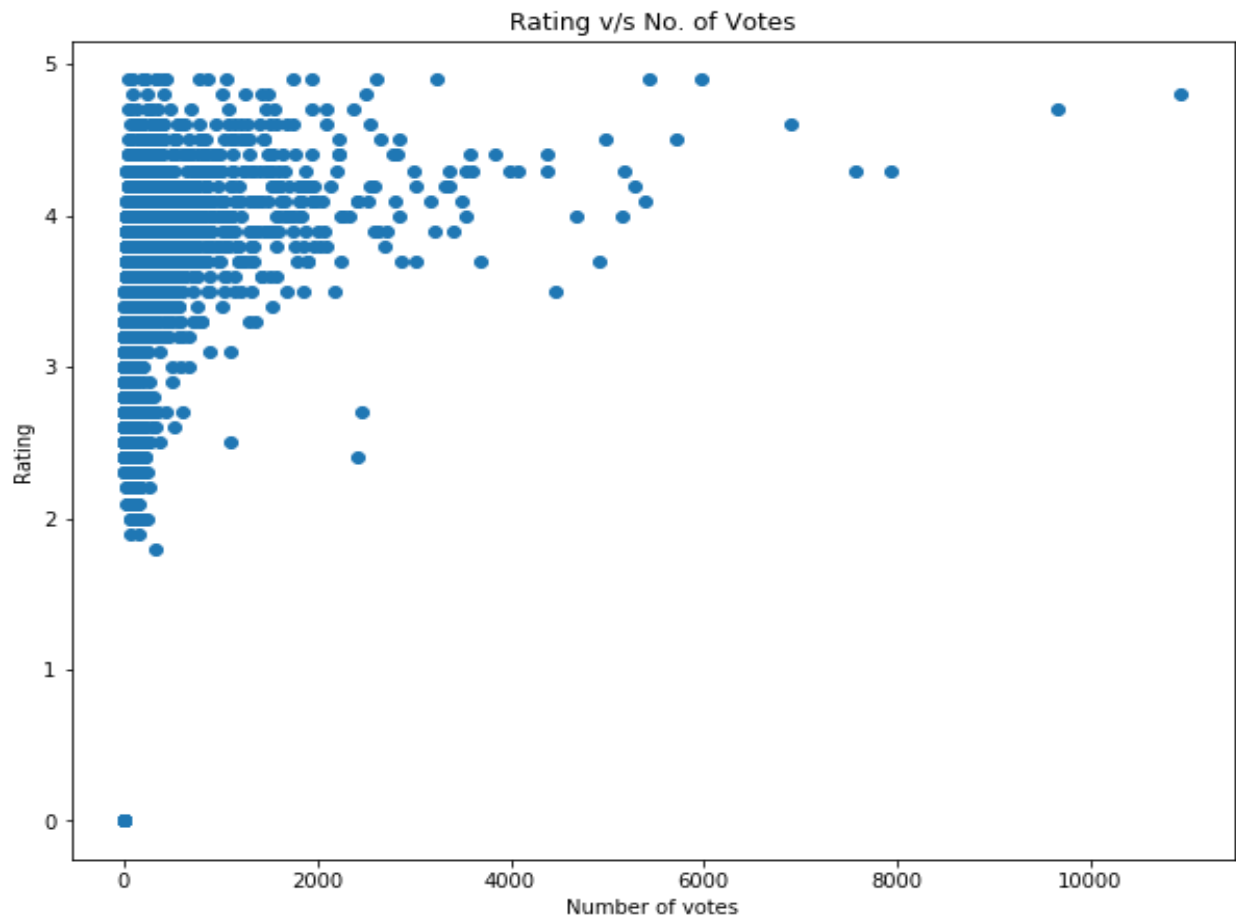
-----	-
Sandwich	1
Armenian	1
Mithai	1
Steak	1
Parsi	1
Awadhi	1
Lucknowi	1
Portuguese	1
African	1
British	1

Q2

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.

2.1.1 Number of Votes given Restaurant

Graph:-

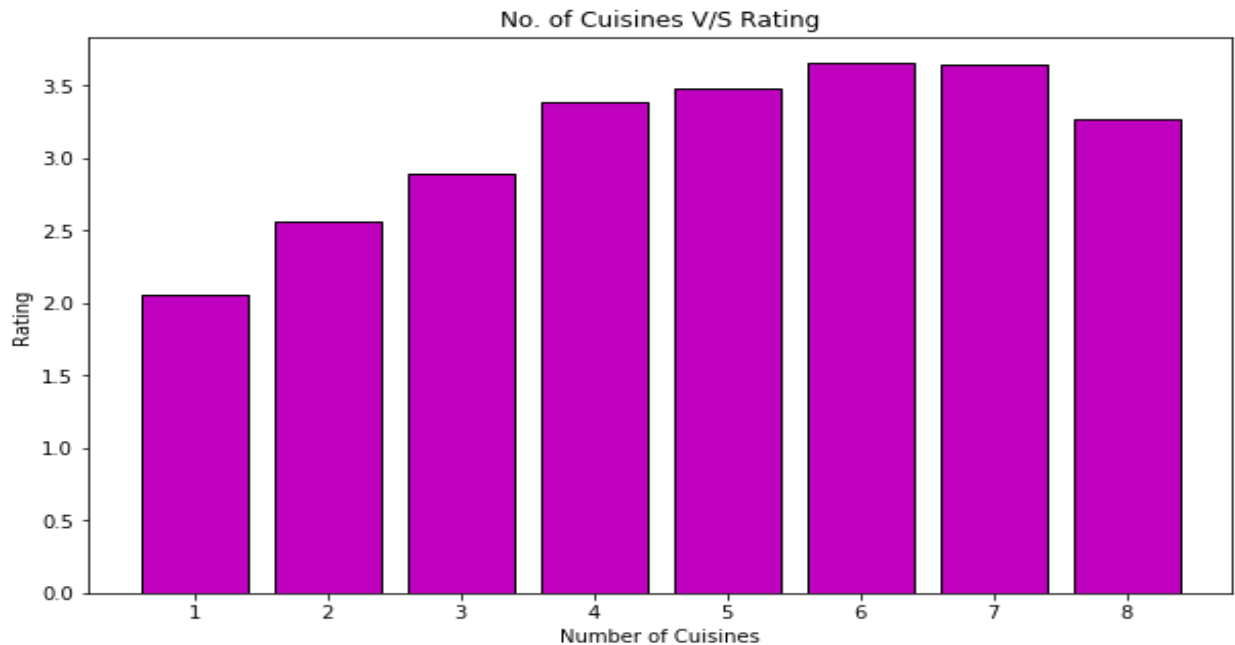


Justification:-

By looking at the results we can get the idea that the most people rates the restaurant between the range of **3 to 5** approximately while there is a very low chance of the customer to rate it **below 2** as it can be those cases where the food is not good or the service is very poor means the customer is very dissatisfied while **above 4.5** the peak is not much which shows that the no person can be fully satisfied by the restaurant which is true like the efficiency of machine can be 100% so these can be those cases where the restaurant is top class and things like cost, food and services are excellent.

2.1.2 Restaurant serving more number of cuisines.

Graph:-



Justification:-

Here we can see that the number of cuisines is directly proportional to the rating which implies the more we have to choose the more chances we have to get the cuisine you like which affects the rating and helps in improving it.

More variety means more chances of getting your favorite cuisine easily and when you get it is obvious that you will give a good rating and people always want to try new things so a restaurant where you get wide variety it is obvious that you will go there

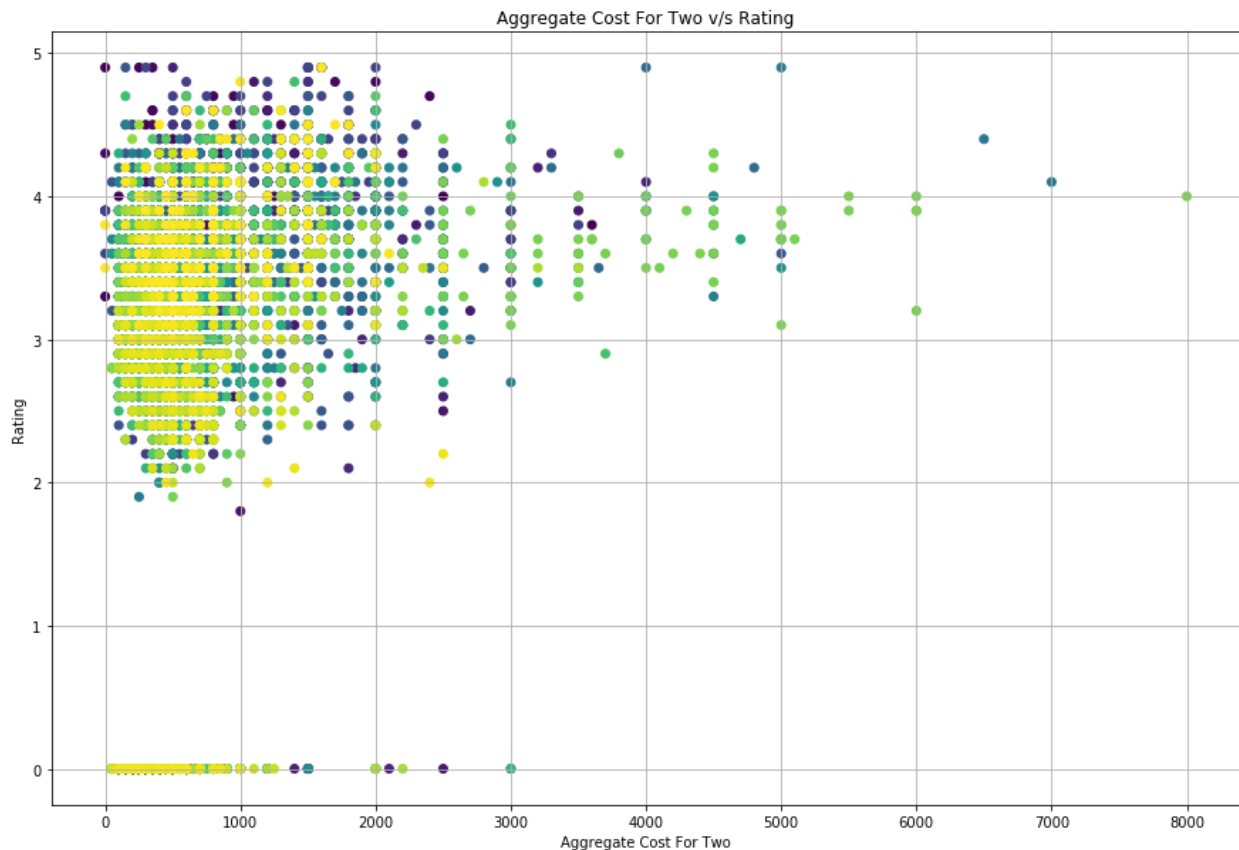
Ans:-

2.05509 1
2.56342 2

2.89054 3
3.37917 4
3.48129 5
3.65143 6
3.64615 7
3.26667 8

2.1.3 Average Cost of Restaurant

Graph:-



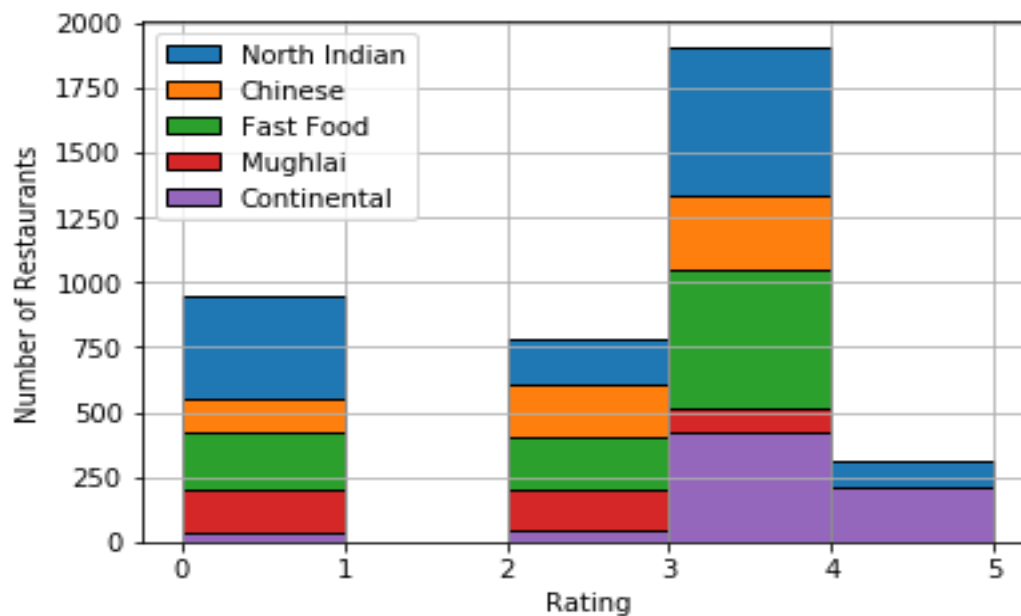
Justification:-

From this we can get that, the lower the price the more people will eat, which is common for everyone that is why the part between **0-2000** is denser than other area and in these areas the fluctuation is more between rating which is from 0 to 5, the average rating is from **2 to 5**.

Here 0 rating implies that people don't give reviews, on the other hand when we increase the price we can see that the rating is also increasing and the more costly

the cuisine is the chances of getting good quality and good services also increases so that is the reason where the price is high the rating are less and they are good quality means not much people go there but they get satisfied with it

2.1.4 Restaurant serving some specific cuisines.



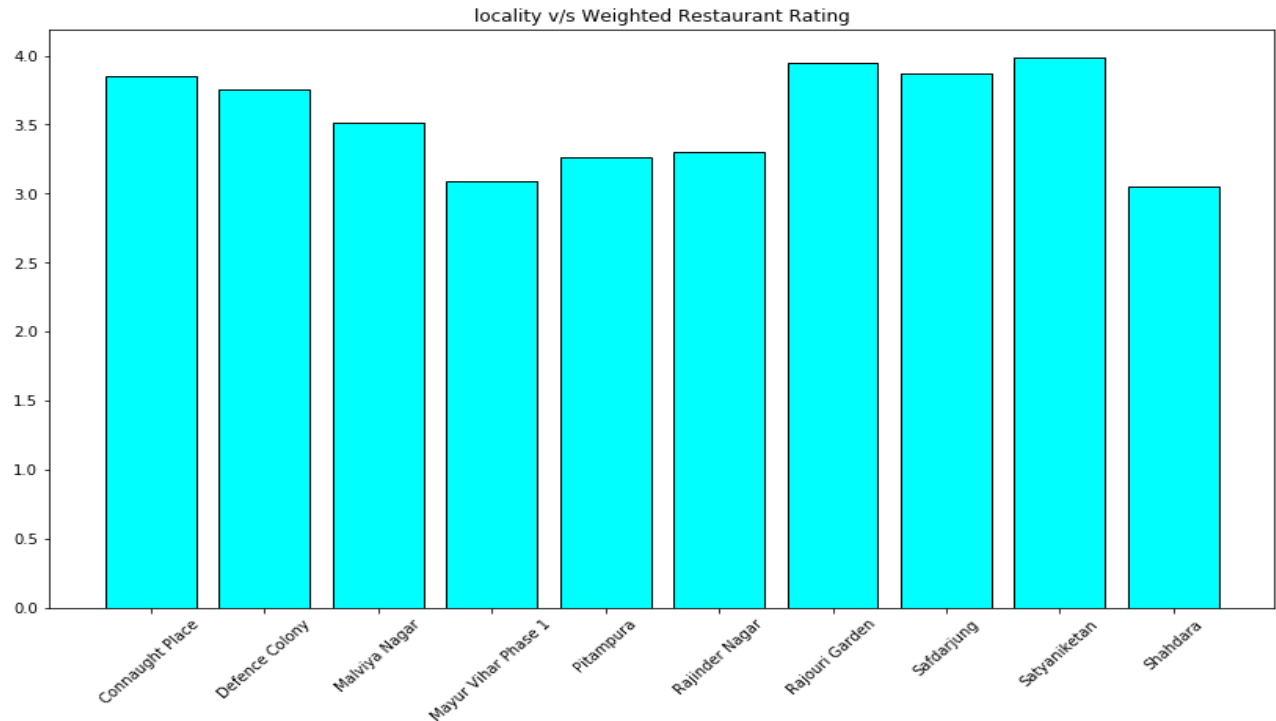
Justification:-

Here these are some specific cuisines which is widely popular in India with these cuisines in your menu you can assure that the chances of people coming to your restaurant and the rating also increases

You can see the that average rating is 4 for these menus and the rest depends on the restaurant like how good they can manage and the number of restaurants is also high

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

Graph:-



Justification:-

From the list we can infer that things like which place has more weighted rating implies that the quality of the restaurants in that area must be good and you can eat a good quality cuisines in those area despite having more number of restaurants

The weighted rating also implies that if we want to open a new restaurant we should open it there as new customers go to those places with good rating

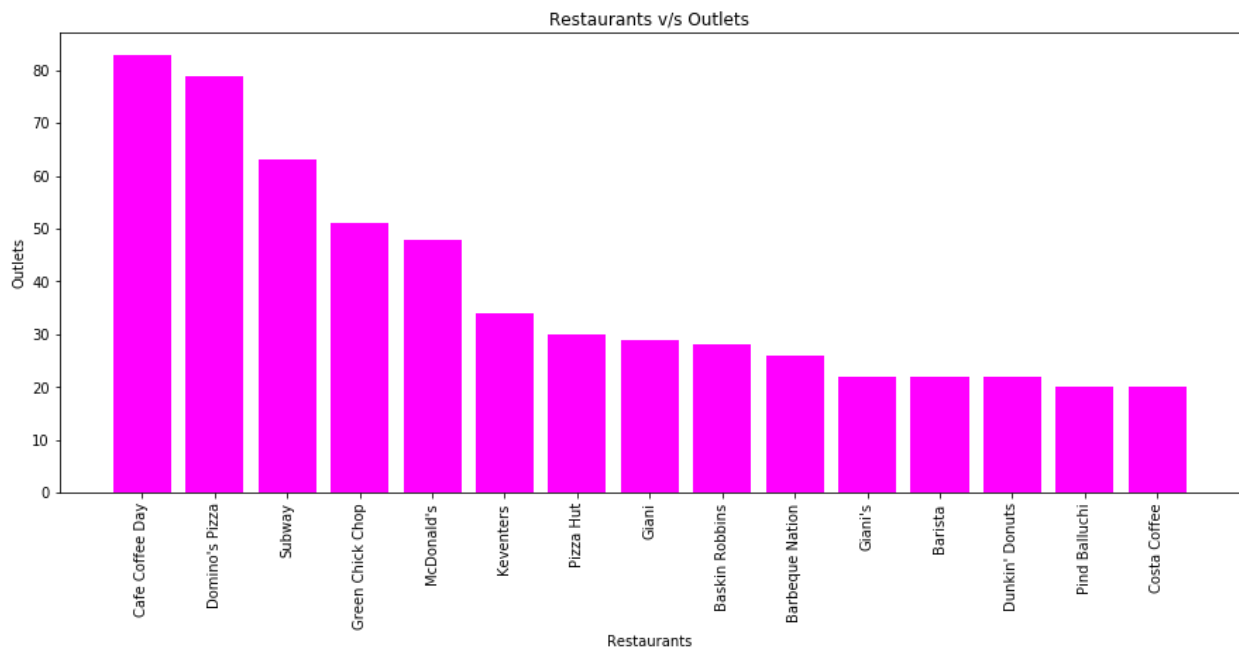
Ans:-

Connaught Place	3.85065
Defence Colony	3.75246
Malviya Nagar	3.51786
Mayur Vihar Phase 1	3.08775
Pitampura	3.26196
Rajinder Nagar	3.30685
Rajouri Garden	3.95073
Safdarjung	3.86815
Satyaniketan	3.98947
Shahdara	3.05614

Q3 Visualization

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

Graph:-



Justification:-

From the results it is obvious that fast food and beverages have more outlets than the normal restaurant since they can be open in public places and the area they requires is less than an ordinary restaurant and there is demand is quite high in the growing world .

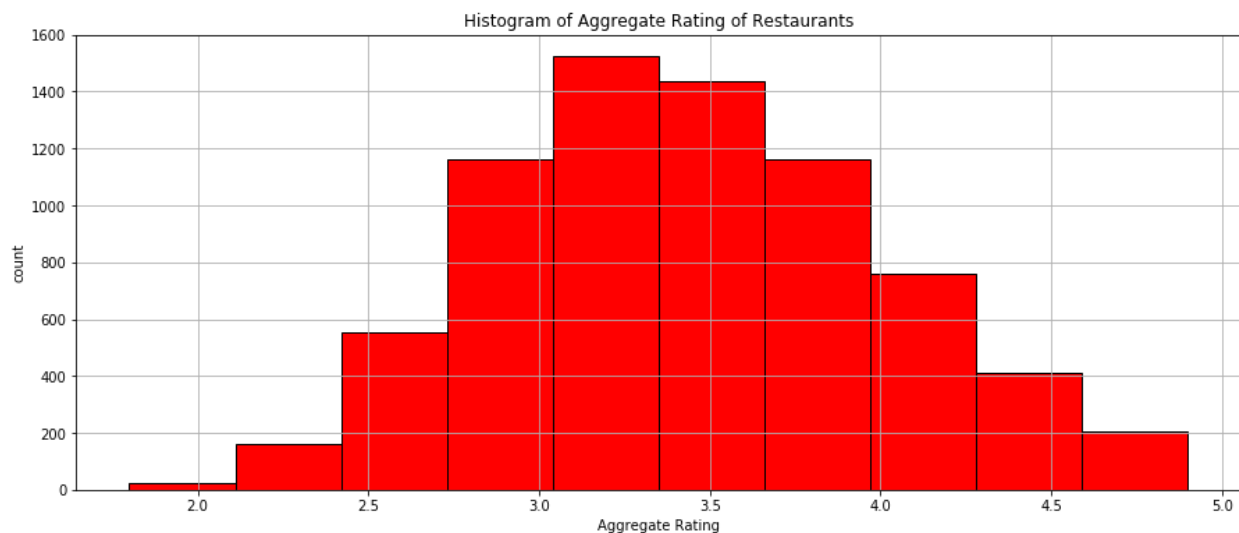
Ans:-

Cafe Coffee Day 83
Domino's Pizza 79
Subway 63
Green Chick Chop 51
McDonald's 48
Keventers 34
Pizza Hut 30
Giani 29

Baskin Robbins 28
Barbeque Nation 26
Giani's 22
Barista 22
Dunkin' Donuts 22
Costa Coffee 20
Pind Balluchi 20

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

Graph:-

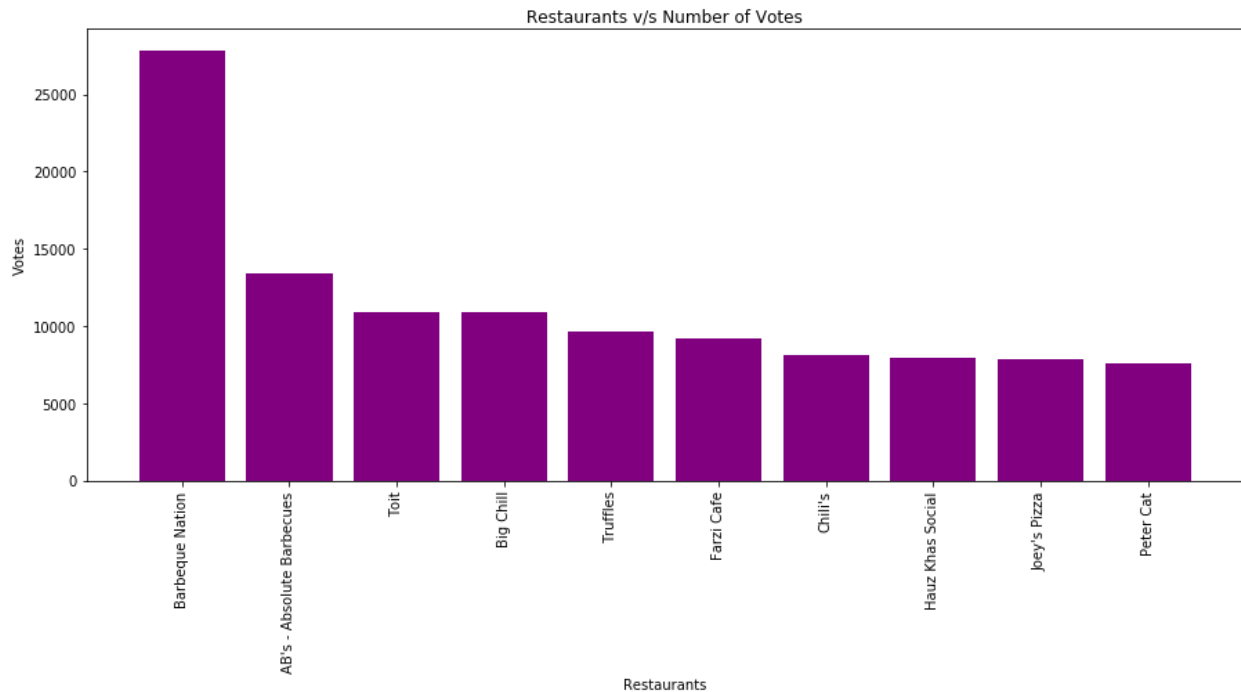


Justification:-

From the above histogram we can infer that the rating above 3.0 and below 3.5 has the maximum count which shows that this is the average rating which customers usually gives to the restaurants and the rating below 2.6 and above 4.5 are the lowest which implies that customers don't give bad and good usually rating which means either that food or service is bad or both them are good which results in the poor and good rating

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

Graph:-



Justification:-

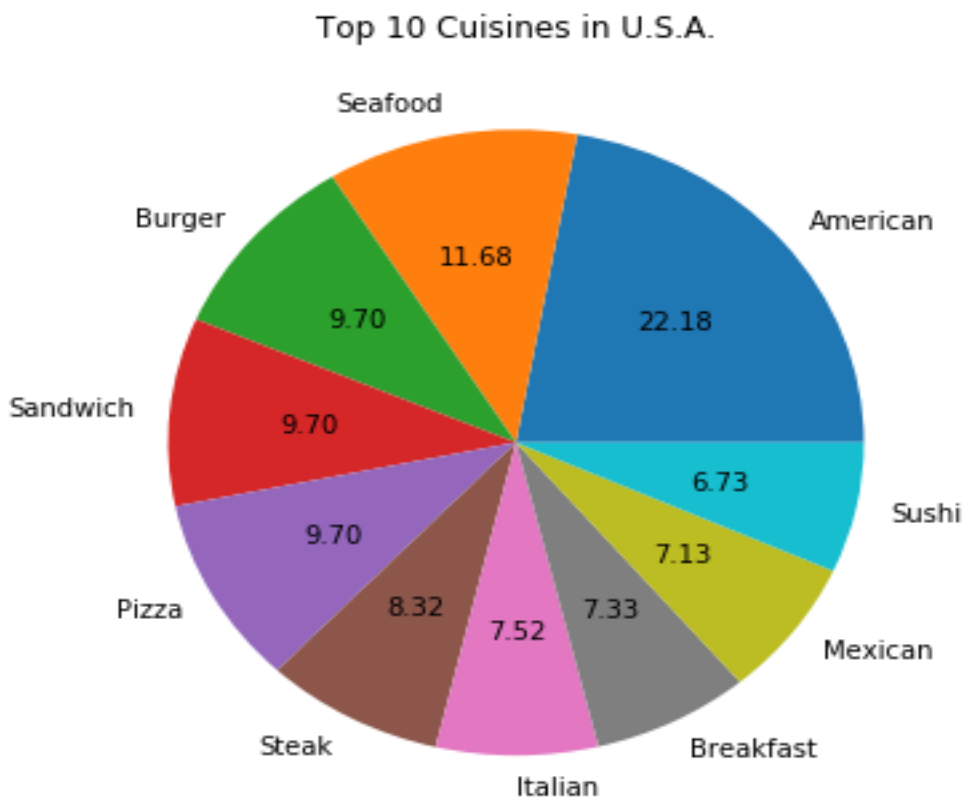
From the results we can see that the Barbeque Nation and AB's - Absolute Barbecues 13400 are the best restaurant in our dataset which shows that barbeque is very liked by people with the highest votings of 27385 , 1340.

Ans:-

Barbeque Nation	27835
AB's - Absolute Barbecues	13400
Toit	10934
Big Chill	10853
Truffles	9682
Farzi Cafe	9189
Chili's	8156
Hauz Khas Social	7931
Joey's Pizza	7807
Peter Cat	7574

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

Graph:-



Justification:-

In U.S.A. we can at least assume like every other country that the most favored cuisine should be **American** which is true with that **sea food, burger and sandwich** are common there since they eat outside food more than homemade like India.

Ans:-

American 112

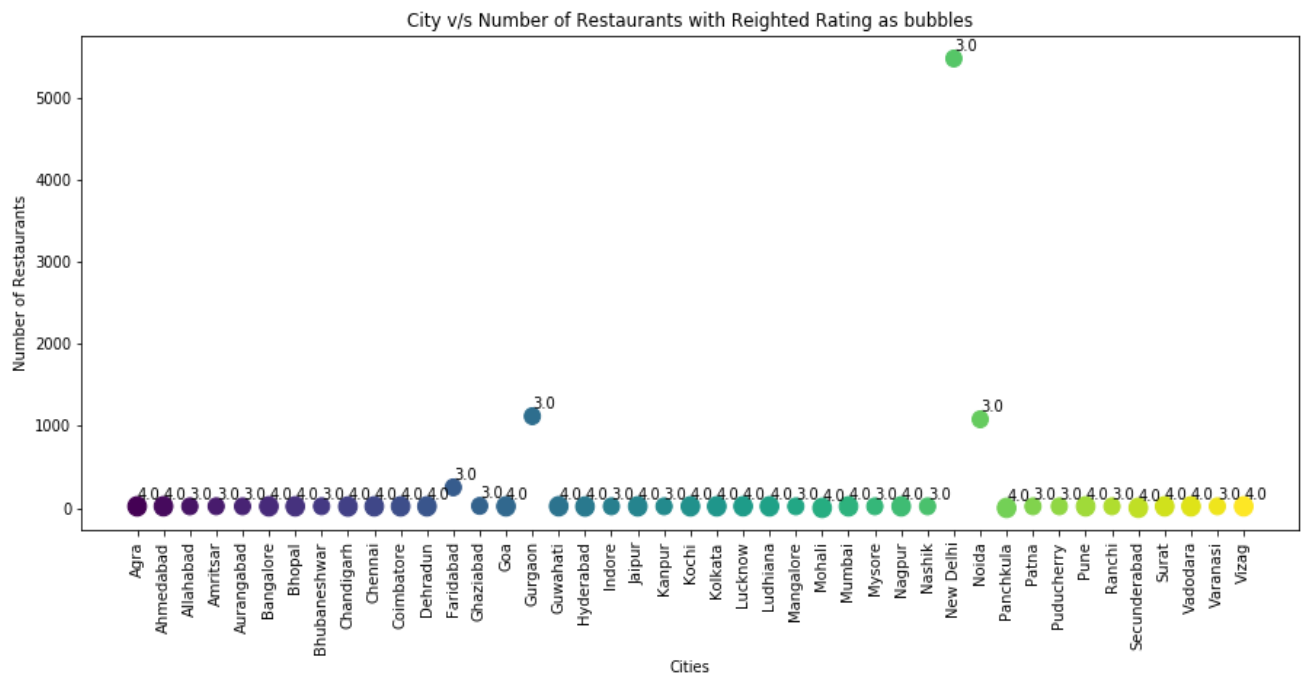
Seafood 59

Burger 49

Sandwich 49
 Pizza 49
 Steak 42
 Italian 38
 Breakfast 37
 Mexican 36
 Sushi 34

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.

Graph:-



Justification:-

From the results we can see that although the number of Restaurants in New Delhi, Noida, Gurgaon are high but the weighted rating is low which shows that it is not necessary if there are more restaurants at famous places than the rating will also high. With this we can also infer that at a place if the number of restaurants increases that it's value also decreases if the rating of restaurant is low.

Ans:-

New Delhi	5473	4.01
Gurgaon	1118	4.16
Noida	1080	3.41
Faridabad	251	3.76
Ghaziabad	25	3.43
Lucknow	21	4.5
Ahmedabad	21	4.13
Bhubaneshwar	21	3.97
Guwahati	21	4.11
Amritsar	21	4.32
Nashik	20	4.17
Kanpur	20	4.02
Kolkata	20	3.53
Ranchi	20	3.04
Allahabad	20	4.16
Nagpur	20	3.75
Kochi	20	4.27
Indore	20	4.49
Vadodara	20	4
Dehradun	20	4.28
Goa	20	3.85
Pune	20	4.14
Agra	20	4.3
Mumbai	20	4.32
Coimbatore	20	4.08
Patna	20	3.76
Vizag	20	4.3
Ludhiana	20	4.22
Aurangabad	20	3.76
Surat	20	4.11
Chennai	20	3.59
Jaipur	20	3.77
Varanasi	20	3.49
Bhopal	20	4.2
Mysore	20	3.46
Bangalore	20	3.74
Puducherry	20	4.28
Mangalore	20	3.57
Hyderabad	18	4.55
Chandigarh	18	4.02
Secunderabad	2	4.13
Panchkula	1	3.56
Mohali	1	4.13