

1 CAPSTONE PROJECT - THE BATTLE OF NEIGHBORHOODS

December 11, 2019

1.1 INTRODUCTION & BUSINESS PROBLEM :

New Delhi is the capital city of India. It is a part of the city of Delhi's 11 districts. The city itself has a population of 257,803. However, the much larger metro area has a population that exceeds 26 million.

New Delhi is used interchangeably to refer to the National Capital Territory of Delhi (NCT), these are two distinct entities, with New Delhi forming a small part of Delhi. The National Capital Region is a much larger entity comprising the entire NCT along with adjoining districts in neighboring states.

The official language of New Delhi and the one that is most widely spoken is Hindi. However, English is also spoken as a formal language within businesses and government agencies. Over the last decades, it is continuously growing because of the city's important role in government and commercial business.

With its diverse culture, comes diverse food items. There are many restaurants in New Delhi City, each belonging to different categories like Chinese, Italian, French, etc. So as part of this project, we will list and visualize all major parts of New Delhi City.

1.2 QUESTIONS THAT CAN BE ASKED USING THE ABOVE MENTIONED PROBLEM.

- 1. What is the best location in New Delhi City for Chinese Cuisine?**
- 2. Which areas have a large number of Chinese Restaurant Market?**
- 3. Which areas have less number of the restaurant?**
- 4. Which is the best place to stay if I prefer Chinese Cuisine?**
- 5. What places have the best restaurant in New Delhi?**

2 DATA:

2.1 THE FOLLOWING DATA WILL BE USED FOR THE PROJECT :

- New Delhi Restaurant data that contains list Locality, Restaurant name, Rating along with their latitude and longitude.
- **Data source :** <https://www.kaggle.com/shrutimehta/zomato-restaurants-data>
- **Description:** This data set contains the required information. And we will use this data set to explore various locality of the new Delhi city.
- **Data source:** <https://developer.foursquare.com/>
- **Description:** By using this API we will get all the venues in each neighborhood.

2.2 APPROACH

- Collect the new Delhi city data from <https://www.kaggle.com/shrutimehta/zomato-restaurants-data>
- Using FourSquare API we will find all venues for each neighborhood.
- Filter out all venues that are nearby by locality.
- Using an aggregative rating for each restaurant to find the best places.
- Visualize the Ranking of neighborhoods using folium library(python)

3 EXPLORATORY DATA ANALYSIS:

3.1 READING THE ZOMATO RESTAURANT DATA FROM CSV FILE:

```
In [6]: df = pd.read_csv('zomato.csv',encoding='ISO-8859-1')
df.head()
```

Out[6]:

Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Locality Verbose	Longitude	Latitude	Cuisines	...	Currency	Has Table booking	Has Online delivery	de
6317637	Le Petit Souffle	162	Makati City	Third Floor, Century City Mall, Kalayaan Avenu...	Century City Mall, Poblacion, Makati City	Century City Mall, Poblacion, Makati City, Mak...	121.027535	14.565443	French, Japanese, Desserts	...	Botswana Pula(P)	Yes	No	
6304287	Izakaya Kikufuji	162	Makati City	Little Tokyo, 2277 Chino Roces Avenue, Legaspi...	Little Tokyo, Legaspi Village, Makati City	Little Tokyo, Legaspi Village, Makati City, Ma...	121.014101	14.553708	Japanese	...	Botswana Pula(P)	Yes	No	
6300002	Heat - Edsa Shangri-La	162	Mandaluyong City	Edsa Shangri-La, 1 Garden Way, Ortigas, Mandal...	Edsa Shangri-La, Ortigas, Mandaluyong City	Edsa Shangri-La, Ortigas, Mandaluyong City, Ma...	121.056831	14.581404	Seafood, Asian, Filipino, Indian	...	Botswana Pula(P)	Yes	No	
6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall, Ortigas, Mandaluyong City, Mandal...	121.056475	14.585318	Japanese, Sushi	...	Botswana Pula(P)	No	No	
6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall, Ortigas, Mandaluyong City, Mandal...	121.057508	14.584450	Japanese, Korean	...	Botswana Pula(P)	Yes	No	

rows × 21 columns

Zomato restaurant dataset has been taken using pandas Data Frame.

3.2 LET'S TAKE THE DATA OF INDIA:

```
In [11]: df_india = df[df['Country Code'] == 1]
df_india.head()
```

Out[11]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Locality Verbose	Longitude	Latitude	Cuisines ...	Currency	Has Table booking	Has Online delivery	Is delivering now
624	3400025	Jahanpanah	1	Agra	E 23, Shopping Arcade, Sadar Bazaar, Agra Cant...	Agra Cantt	Agra Cantt, Agra	78.011544	27.161661	North Indian, Mughlai	Indian Rupees(Rs.)	No	No	No
625	3400341	Rangrezz Restaurant	1	Agra	E-20, Shopping Arcade, Sadar Bazaar, Agra Cant...	Agra Cantt	Agra Cantt, Agra	0.000000	0.000000	North Indian, Mughlai	Indian Rupees(Rs.)	No	No	No
626	3400005	Time2Eat - Mama Chicken	1	Agra	Main Market, Sadar Bazaar, Agra Cantt, Agra	Agra Cantt	Agra Cantt, Agra	78.011608	27.160832	North Indian	Indian Rupees(Rs.)	No	No	No
627	3400021	Chokho Jeeman Marwari Jain Bhojanalya	1	Agra	1/48, Delhi Gate, Station Road, Raja Mandi, Ci...	Civil Lines	Civil Lines, Agra	77.998092	27.195928	Rajasthani	Indian Rupees(Rs.)	No	No	No
628	3400017	Pinch Of Spice	1	Agra	23/453, Opposite Sanjay Cinema, Wazipura Road,...	Civil Lines	Civil Lines, Agra	78.007553	27.201725	North Indian, Chinese, Mughlai	Indian Rupees(Rs.)	No	No	No

5 rows × 21 columns

India's data have been taken separately from other countries.

3.3 LET'S TAKE THE DATA OF NEW DELHI:

```
In [16]: df_NDLS = df_india[df_india['City'] == 'New Delhi']
df_NDLS.reset_index(drop=True, inplace=True)
df_NDLS.head()
```

Out[16]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Locality Verbose	Longitude	Latitude	Cuisines	...	Currency	Has Table booking	Has Online delivery	Is delivering now
0	18287358	Food Cloud	1	New Delhi	Aaya Nagar, New Delhi	Aaya Nagar	Aaya Nagar, New Delhi	0.000000	0.000000	Cuisine Varies	...	Indian Rupees(Rs.)	No	No	No
1	18216944	Burger.in	1	New Delhi	84, Near Honda Showroom, Adchini, New Delhi	Adchini	Adchini, New Delhi	77.196923	28.535382	Fast Food	...	Indian Rupees(Rs.)	No	Yes	No
2	313333	Days of the Raj	1	New Delhi	81/3, 1st Floor, Qutub Residency, Adchini, New...	Adchini	Adchini, New Delhi	77.197475	28.535493	North Indian, Seafood, Continental	...	Indian Rupees(Rs.)	Yes	Yes	No
3	18384127	Dilli Ka Dhaba	1	New Delhi	66 A, Ground Floor, Sri Aurobindo Marg, Adchin...	Adchini	Adchini, New Delhi	77.198033	28.537547	South Indian, North Indian	...	Indian Rupees(Rs.)	No	No	No
4	582	Govardhan	1	New Delhi	84, Adjacent Hero Motor Bike Showroom, Main Me...	Adchini	Adchini, New Delhi	77.196924	28.535523	South Indian, North Indian, Chinese	...	Indian Rupees(Rs.)	No	Yes	No

5 rows × 21 columns

New Delhi data is taken separately from India's data. New Delhi data will be used for further analysis.

Now that we have the data of New Delhi, let's start cleaning our data:

4 DATA CLEANING

4.1 REMOVING THE UNWANTED COLUMNS AND ROWS FROM DATASET:

Now that we have the data of New Delhi, let's start cleaning our data

remove the unwanted columns and rows from dataset

```
In [18]: df_NDLS.columns
```

```
Out[18]: Index(['Restaurant ID', 'Restaurant Name', 'Country Code', 'City', 'Address',  
              'Locality', 'Locality Verbose', 'Longitude', 'Latitude', 'Cuisines',  
              'Average Cost for two', 'Currency', 'Has Table booking',  
              'Has Online delivery', 'Is delivering now', 'Switch to order menu',  
              'Price range', 'Aggregate rating', 'Rating color', 'Rating text',  
              'Votes'],  
              dtype='object')
```

```
In [19]: df_NDLS[df_NDLS['Latitude'] != 0.000000][['Restaurant Name', 'Locality', 'Longitude', 'Latitude', 'Cuisines', 'Aggregate rating', 'Rating text', 'Votes']]
```

```
In [20]: df_Res = df_NDLS[df_NDLS['Aggregate rating'] != 0.0]
```

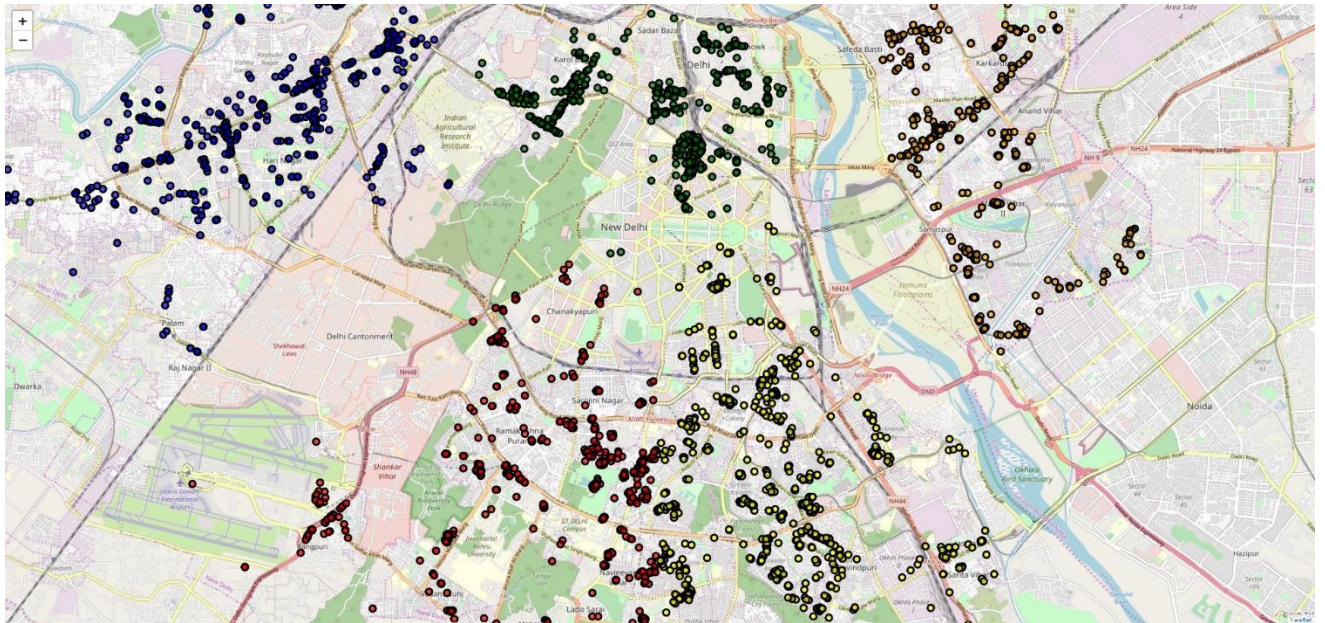
```
In [21]: df_Res.head()
```

```
Out[21]:
```

	Restaurant Name	Locality	Longitude	Latitude	Cuisines	Aggregate rating	Rating text	Votes
1	Burger.in	Adchini	77.196923	28.535382	Fast Food	3.2	Average	46
2	Days of the Raj	Adchini	77.197475	28.535493	North Indian, Seafood, Continental	3.4	Average	45
3	Dilli Ka Dhaba	Adchini	77.198033	28.537547	South Indian, North Indian	2.6	Average	11
4	Govardhan	Adchini	77.196924	28.535523	South Indian, North Indian, Chinese	3.4	Average	238
5	Mezbaan Grills	Adchini	77.198122	28.538134	Mughlai	3.1	Average	8

Data is cleaned and ready to use.

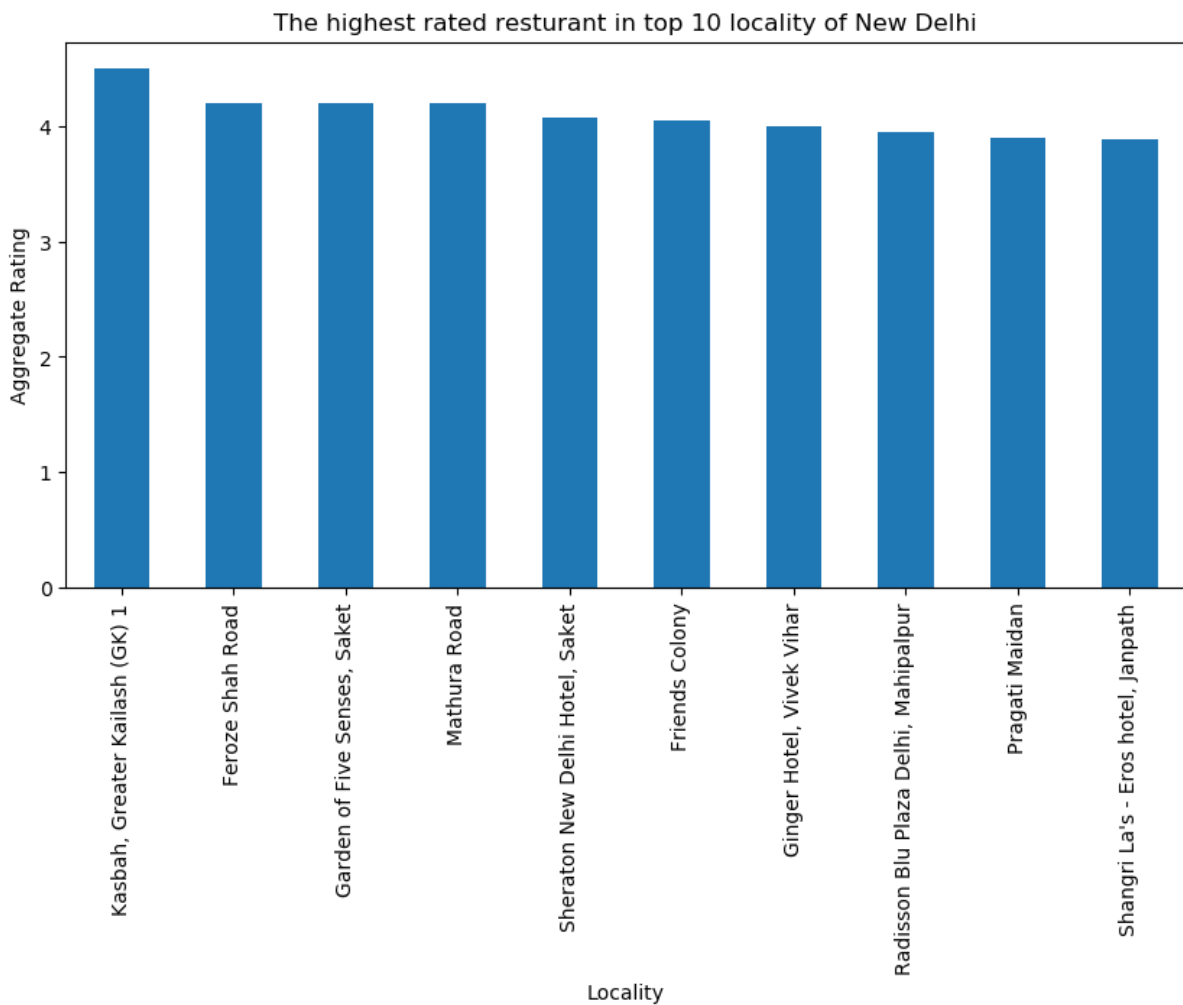
4.2 MAP TO SHOW THE RESTAURANT CLUSTERS:



5 CLUSTERS INDICATE DIFFERENT RESTAURANTS.

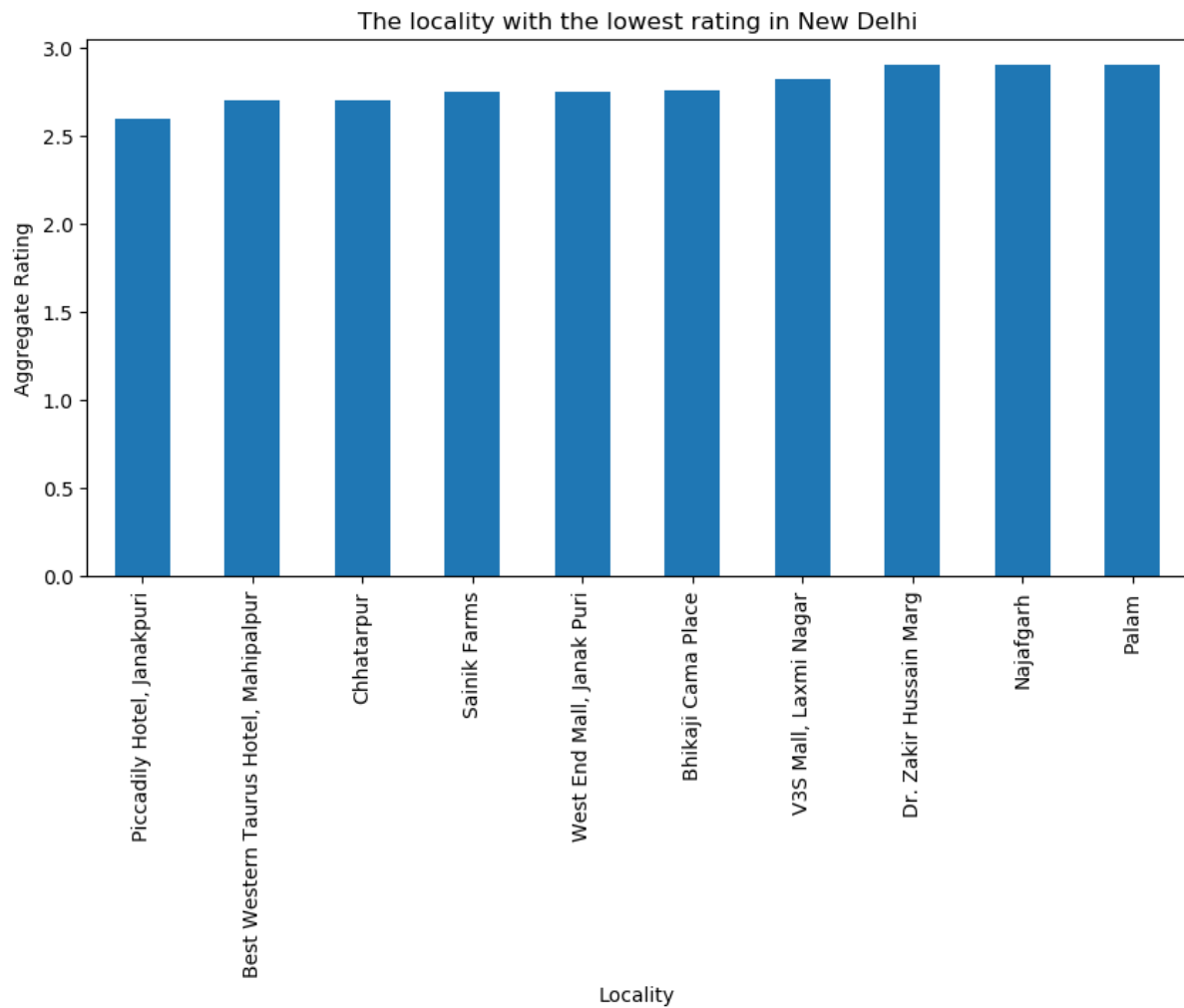
- Red
- Blue
- Green
- Yellow
- Orange

4.3 THE LOCALITIES WITH THE HIGHEST RATINGS ARE:



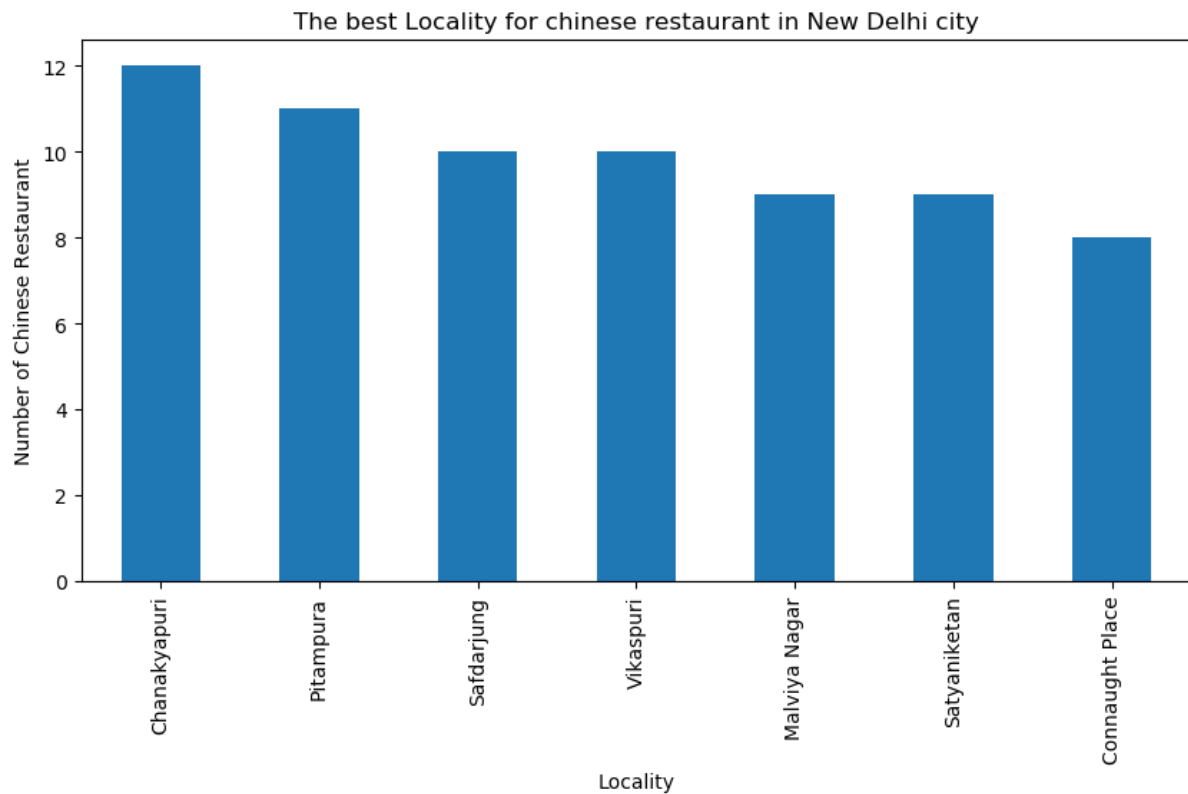
The top-rated restaurants are in Kasbah, Greater Kailash area with a rating greater than 4.

4.4 THE LOCALITIES WITH THE LOWEST RATINGS ARE:



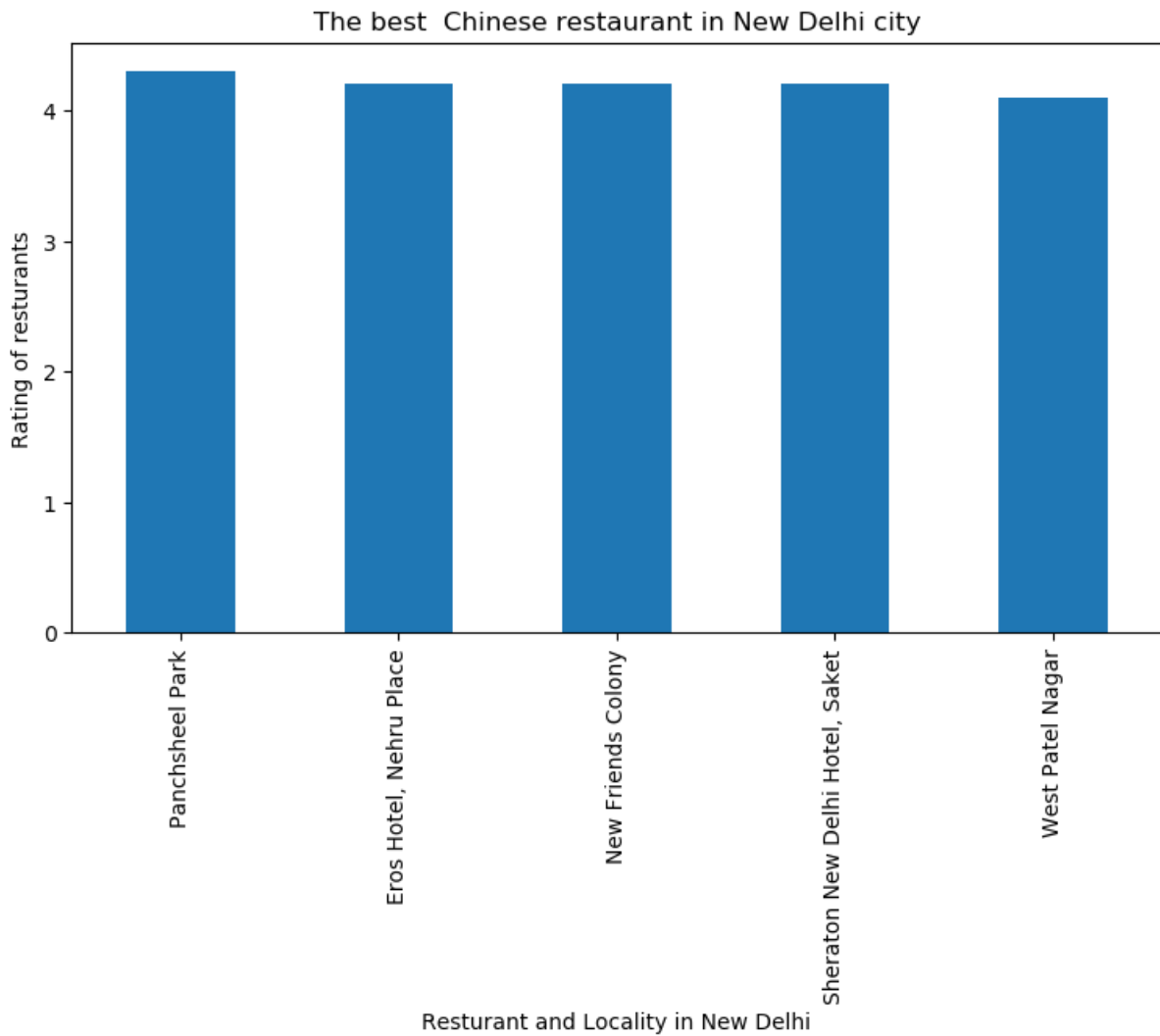
The worst restaurants are in Piccadily Hotel and Janakpuri with a rating lower than 3.

4.5 BEST PLACES FOR CHINESE RESTAURANT IN NEW DELHI:



Chanakyapuri is the best place for Chinese restaurants in New Delhi. It has almost 12 restaurants.

4.6 CHINESE RESTAURANTS WITH GOOD RATING:



Panchsheel Park is the best Chinese restaurant in New Delhi and has a rating greater than 4.

5 GROUPING

5.1 GROUPING THE DATA BASED ON THE LOCALITY:

```
In [45]: df_Res_Loc = df_Res.groupby('Locality').count()['Restaurant Name'].to_frame()
df_Res_rating= df_Res.groupby('Locality')['Aggregate rating'].mean().to_frame()
d_Cuisines = df_Res.groupby(['Locality'])['Cuisines'].agg(' '.join).reset_index()
d_R = df_Res.groupby(['Locality'])['Rating text'].unique().agg(' '.join).reset_index()
d_V = df_Res.groupby(['Locality'])['Votes'].sum().to_frame()
d_Lat = df_Res.groupby('Locality').mean()['Latitude'].to_frame()
d_Lng = df_Res.groupby('Locality').mean()['Longitude'].to_frame()
df_final = pd.merge(d_Lat,d_Lng,on='Locality').merge(df_Res_Loc, on='Locality').merge(d_Cuisines, on='Locality').merge(df_Res
```

```
In [48]: df_final = df_final[df_final['Aggregate rating'] != 0.000000]
df_final.columns = ['Locality', 'Lat', 'Lng', 'No_of_Restaurant', 'Cusines', 'Agg_Rating', 'Comments', 'No_of_Votes']
```

```
In [49]: df_final.head()
```

Out[49]:

	Locality	Lat	Lng	No_of_Restaurant	Cusines	Agg_Rating	Comments	No_of_Votes
0	ARSS Mall, Paschim Vihar	28.668945	77.101544	1	North Indian, South Indian, Chinese, Mithai, F...	3.100000	Average	117
1	Adchini	28.537063	77.197808	13	Fast Food, North Indian, Seafood, Continental,...	3.292308	Average, Good, Poor, Very Good	1560
2	Aditya Mega Mall, Karkardooma	28.656131	77.301266	4	Finger Food, North Indian, Mughlai, Pizza, Fas...	3.275000	Average, Good	434
3	Aerocity	28.553077	77.104270	2	Fast Food, Italian, Pizza, North Indian, Conti...	3.200000	Average	59
4	Aggarwal City Mall, Pitampura	28.690020	77.134650	3	North Indian, Chinese, Street Food, Mithai, No...	3.033333	Average	126

The data is grouped by the locality.

6 FOURSQUARE API:

The **Foursquare API** allows application developers to interact with the **Foursquare** platform. The **API** itself is a RESTful set of addresses to which you can send requests, so there's really nothing to download onto your server.

6.1 DEFINING THE FOURSQUARE CREDENTIALS:

Define Foursquare Credentials and Version

```
In [110]: ► CLIENT_ID = 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx' # your Foursquare ID  
CLIENT_SECRET = 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx' # your Foursquare Secret  
VERSION = 'yyyyyyyy' # Foursquare API version
```

7 GETTING VENUES

7.1 All the venues in New Delhi Locality:

1. Arss Mall, Paschim Vihar
2. Adchini
3. Aditya Mega Mall, Karkardooma
4. Aerocity
5. Aggarwal City Mall, Pitampura
6. Aggarwal City Plaza, Rohini
7. Alaknanda
8. Ambience Mall, Vasant Kunj
9. Anand Lok
10. Anand Vihar
11. Andaz Delhi, Aerocity
12. Ansal Plaza Mall, Khel Gaon Marg
13. Asaf Ali Road
14. Ashok Vihar Phase 1

15. Ashok Vihar Phase 2
16. Ashok Vihar Phase 3
17. Barakhamba Road
18. Basant Lok Market, Vasant Vihar
19. Bellagio, Ashok Vihar Phase 2
20. Best Western Taurus Hotel, Mahipalpur
21. Bhikaji Cama Place
22. Chanakyapuri
23. Chander Nagar
24. Chandni Chowk
25. Chawri Bazar
26. Chhatarpur
27. Chittaranjan Park
28. City Centre Mall, Rohini
29. City Square Mall, Rajouri Garden
30. Civil Lines
31. Community Centre, New Friends Colony
32. Connaught Place
33. Crescent Square Mall, Rohini
34. Cross River Mall, Karkardooma
35. Crowne Plaza Hotel, Rohini
36. Crowne Plaza, Mayur Vihar Phase 1
37. D Mall, Netaji Subhash Place
38. Dda Market, Kalu Sarai, Hauz Khas
39. Dlf City Centre Mall, Shalimar Bagh
40. Dlf Emporio Mall, Vasant Kunj
41. Dlf Place Mall, Saket
42. Dlf Promenade Mall, Vasant Kunj
43. Dlf South Square, Sarojini Nagar
44. Daryaganj
45. Defence Colony
46. Delhi University-Gtb Nagar
47. Dilli Haat, Ina
48. Dilshad Garden
49. District Centre, Janakpuri
50. Dr. Zakir Hussain Marg
51. East Patel Nagar
52. East Of Kailash
53. Epicuria Food Mall, Nehru Place
54. Eros Hotel, Nehru Place
55. Essex Farms
56. Feroze Shah Road
57. Friends Colony
58. Gtb Nagar
59. Garden Of Five Senses, Saket
60. Geeta Colony
61. Ginger Hotel, Vivek Vihar
62. Gourmet Hub, Pashim Vihar
63. Greater Kailash (Gk) 1
64. Greater Kailash (Gk) 2
65. Greater Kailash (Gk) 3
66. Green Park
67. Gujranwala Town
68. Hauz Khas
69. Hauz Khas Village
70. Holiday Inn, Aerocity
71. Holiday Inn, Mayur Vihar
72. Hotel Broadway, Daryaganj
73. Hotel City Park, Pitampura
74. Hotel Regent Grand, Karol Bagh

75. Hotel The Royal Plaza, Janpath
76. Hyatt Regency, Bhikaji Cama Place
77. Ina
78. Ip Extension
79. ITC Maurya, Chanakyapuri
80. ITO
81. India Gate
82. JMD Kohinoor Mall, Greater Kailash
83. JNU
84. JW Marriott New Delhi
85. Jail Road
86. Jama Masjid
87. Janakpuri
88. Jangpura
89. Janpath
90. Jasola
91. Jaypee Siddharth, Rajendra Place
92. Jaypee Vasant Continental, Vasant Vihar
93. Jor Bagh
94. Kailash Colony
95. Kalkaji
96. Kamla Nagar
97. Kapashera
98. Karampura
99. Karkardooma
100. Karol Bagh
101. Kasbah, Greater Kailash (GK) 1
102. Kashmiri Gate
103. Khan Market
104. Kirti Nagar
105. Krishna Nagar
106. Lado Sarai
107. Lajpat Nagar 1
108. Lajpat Nagar 2
109. Lajpat Nagar 4
110. Lawrence Road
111. Laxmi Nagar
112. Le Meridien, Janpath
113. Lemon Tree Premier, Aerocity
114. Living Style Mall, Jasola
115. Lodhi Colony
116. Lodhi Road
117. MG Road
118. MGF Metropolitan Mall, Saket
119. MGM Club, Daryaganj
120. Mahipalpur
121. Maidens Hotel, Civil Lines
122. Majnu Ka Tila
123. Malviya Nagar
124. Mandi House
125. Mathura Road
126. Mayapuri Phase 2
127. Mayur Vihar Phase 1
128. Mayur Vihar Phase 2
129. Mayur Vihar Phase 3
130. Mehrauli
131. Metro Walk Mall, Rohini
132. Model Town 1
133. Model Town 2
134. Model Town 3

135.Moments Mall, Kirti Nagar
136.Moti Bagh
137.Moti Nagar
138.Mukherjee Nagar
139.Munirka
140.Najafgarh
141.Naraina
142.Nehru Place
143.Netaji Subhash Place
144.New Friends Colony
145.Nizamuddin
146.Okhla Phase 1
147.Okhla Phase 2
148.Pvr Anupam Complex
149.Pacific Mall, Tagore Garden
150.Paharganj
151.Palam
152.Palate Of Delhi, Chanakyapuri
153.Panchsheel Park
154.Pandara Road Market
155.Pandav Nagar
156.Paschim Vihar
157.Patparganj
158.Piccadily Hotel, Janakpuri
159.Pitampura
160.Pragati Maidan
161.Prashant Vihar
162.Preet Vihar
163.Premier Inn, Shalimar Bagh
164.Pride Plaza Hotel, Aerocity
165.Punjabi Bagh
166.Qutab Institutional Area
167.R K Puram
168.Race Course
169.Radisson Blu Plaza Delhi, Mahipalpur
170.Radisson Blu, Paschim Vihar
171.Rajendra Place
172.Rajinder Nagar
173.Rajouri Garden
174.Rohini
175.Roseate House, Aerocity
176.Sda
177.Safdarjung
178.Sainik Farms
179.Saket
180.Sangam Courtyard, Rk Puram
181.Sarita Vihar
182.Sarojini Nagar
183.Satyaniketan
184.Sector 15, Dwarka
185.Select Citywalk Mall, Saket
186.Shahdara
187.Shahpur Jat
188.Shakarpur
189.Shalimar Bagh
190.Shangri La's - Eros Hotel, Janpath
191.Shanti Niketan Marg
192.Sheikh Sarai
193.Sheraton New Delhi Hotel, Saket
194.South Extension 1

- 195.South Extension 2
- 196.Southern Park Mall, Saket
- 197.Spark Mall, Kamla Nagar
- 198.Star City Mall, Mayur Vihar Phase 1
- 199.Subhash Nagar
- 200.Sunder Nagar
- 201.T3 Domestic Arrival, Aerocity
- 202.Tdi Mall, Rajouri Garden
- 203.Tagore Garden
- 204.Taj Vivanta, Khan Market
- 205.The Ashok, Chanakyapuri
- 206.The Claridges, Aurangzeb Road
- 207.The Grand New Delhi, Vasant Kunj
- 208.The Imperial, Janpath
- 209.The India Mall, New Friends Colony
- 210.The Lalit New Delhi, Barakhamba Road
- 211.The Leela Ambience Convention Hotel
- 212.The Leela Palace, Chanakyapuri
- 213.The Lodhi, Lodhi Road
- 214.The Park, Connaught Place
- 215.The Surya New Delhi, New Friends Colony
- 216.The Taj Mahal Hotel, Mansingh Road
- 217.The Taj Palace Hotel, Chanakyapuri
- 218.The Uppal, Aerocity
- 219.The Village Restaurant Complex, Khel Gaon Marg
- 220.Tilak Nagar
- 221.Tughlakabad Institutional Area
- 222.Uday Park
- 223.Unity One Mall, Janakpuri
- 224.Uttam Nagar
- 225.V3s Mall, Laxmi Nagar
- 226.Vasant Kunj
- 227.Vasant Square Mall, Vasant Kunj
- 228.Vasant Vihar
- 229.Vasundhara Enclave
- 230.Vijay Nagar
- 231.Vikas Marg
- 232.Vikaspuri
- 233.Vivek Vihar
- 234.Wazirpur
- 235.West End Mall, Janak Puri
- 236.West Gate Mall, Rajouri Garden
- 237.West Patel Nagar
- 238.Worldmark 1, Aerocity
- 239.Yusuf Sarai
240. Ibis New Delhi, Aerocity

There are 211 unique categories.

7.2 LOCALITY ALONG WITH THE TOP 5 MOST COMMON VENUES

----ARSS Mall, Paschim Vihar----

	venue	freq
0	Indian Restaurant	0.22
1	ATM	0.11
2	Coffee Shop	0.11
3	Pizza Place	0.11
4	Sandwich Place	0.11

----Adchini-----

	venue	freq
0	Café	0.4
1	Pub	0.2
2	Indian Restaurant	0.2
3	Hotel	0.2
4	ATM	0.0

----Aditya Mega Mall, Karkardooma----

	venue	freq
0	Pizza Place	0.2
1	Shopping Mall	0.2
2	Multiplex	0.2
3	Indian Restaurant	0.2
4	Hotel	0.1

----Aerocity-----

	venue	freq
0	Hotel	0.29
1	Airport Lounge	0.14
2	Fast Food Restaurant	0.14
3	Coffee Shop	0.14
4	Rental Car Location	0.14

----Aggarwal City Mall, Pitampura----

	venue	freq
0	Indian Restaurant	0.33
1	Pizza Place	0.17
2	Food	0.17

3	Fast Food Restaurant	0.17
4	Department Store	0.17

----Aggarwal City Plaza, Rohini----

	venue	freq
0	Pizza Place	0.1
1	Salad Place	0.1
2	Multiplex	0.1
3	Shopping Mall	0.1
4	Indian Restaurant	0.1

----Alaknanda----

	venue	freq
0	Bar	0.17
1	Coffee Shop	0.17
2	Market	0.17
3	Hotel	0.17
4	Food & Drink Shop	0.17

----Ambience Mall, Vasant Kunj----

	venue	freq
0	Coffee Shop	0.09
1	Italian Restaurant	0.07
2	Asian Restaurant	0.07
3	Fast Food Restaurant	0.07
4	Shopping Mall	0.07

----Anand Lok----

	venue	freq
0	Stadium	0.18
1	Café	0.18
2	Golf Course	0.09
3	Dessert Shop	0.09
4	Music Venue	0.09

----Anand Vihar----

	venue	freq
0	Café	0.4
1	Dessert Shop	0.2
2	Burger Joint	0.2
3	Burrito Place	0.2
4	Northeast Indian Restaurant	0.0

----Andaz Delhi, Aerocity----

	venue	freq
0	Hotel	0.36
1	Indian Restaurant	0.08
2	Shopping Mall	0.04
3	Punjabi Restaurant	0.04
4	Bed & Breakfast	0.04

----Ansal Plaza Mall, Khel Gaon Marg----

	venue	freq
0	Japanese Restaurant	0.2
1	Karaoke Bar	0.2
2	Shopping Mall	0.2
3	Electronics Store	0.2
4	Fast Food Restaurant	0.2

----Asaf Ali Road-----

	venue	freq
0	Hostel	0.17
1	Asian Restaurant	0.17
2	Movie Theater	0.17
3	Theme Park	0.17
4	Indian Restaurant	0.17

----Ashok Vihar Phase 1----

	venue	freq
0	Pizza Place	0.14
1	Market	0.14
2	Dessert Shop	0.14
3	BBQ Joint	0.14
4	Snack Place	0.14

----Ashok Vihar Phase 2-----

	venue	freq
0	Asian Restaurant	0.14
1	Department Store	0.14
2	Pizza Place	0.14
3	South Indian Restaurant	0.14
4	Indian Restaurant	0.14

----Ashok Vihar Phase 3-----

	venue	freq
0	South Indian Restaurant	0.2
1	BBQ Joint	0.2
2	Fast Food Restaurant	0.2
3	Gym / Fitness Center	0.2
4	Pizza Place	0.2

----Barakhamba Road-----

	venue	freq
0	Indian Restaurant	0.23
1	Café	0.15
2	Theater	0.15
3	Bakery	0.15
4	Hotel	0.08

----Basant Lok Market, Vasant Vihar----

	venue	freq
0	Café	0.13
1	Pizza Place	0.09
2	Fast Food Restaurant	0.09
3	Chinese Restaurant	0.09
4	Coffee Shop	0.09

----Bellagio, Ashok Vihar Phase 2----

	venue	freq
0	Asian Restaurant	0.14
1	Department Store	0.14
2	Pizza Place	0.14
3	South Indian Restaurant	0.14
4	Indian Restaurant	0.14

----Best Western Taurus Hotel, Mahipalpur----

	venue	freq
0	Hotel	0.44
1	Bed & Breakfast	0.11
2	Accessories Store	0.11
3	Indian Restaurant	0.11
4	Shoe Store	0.11

----Bhikaji Cama Place----

	venue	freq
0	Lounge	0.18
1	Hotel	0.18
2	Breakfast Spot	0.09
3	Bakery	0.09
4	Asian Restaurant	0.09

----Chanakyapuri----

	venue	freq
0	African Restaurant	0.2
1	Concert Hall	0.2
2	Park	0.2
3	Trail	0.2
4	Café	0.2

----Chander Nagar----

	venue	freq
0	Pizza Place	0.5
1	Fast Food Restaurant	0.5
2	Pet Store	0.0
3	Performing Arts Venue	0.0
4	Mughlai Restaurant	0.0

----Chandni Chowk----

	venue	freq
0	Indian Restaurant	0.25
1	Dessert Shop	0.20
2	Snack Place	0.15
3	Market	0.10
4	Paper / Office Supplies Store	0.05

----Chawri Bazar----

	venue	freq
0	Fast Food Restaurant	0.2
1	Indian Restaurant	0.2
2	Paper / Office Supplies Store	0.2
3	Light Rail Station	0.2
4	Hardware Store	0.2

----Chhatarpur----

	venue	freq
0	Japanese Restaurant	0.2
1	Indian Restaurant	0.2
2	Donut Shop	0.2
3	Hotel	0.2
4	Luggage Store	0.2

----Chittaranjan Park----

	venue	freq
0	Market	0.50
1	Ice Cream Shop	0.25
2	Park	0.25
3	ATM	0.00
4	North Indian Restaurant	0.00

----City Centre Mall, Rohini----

	venue	freq
0	Shopping Mall	0.33
1	Department Store	0.22
2	Multiplex	0.11
3	Light Rail Station	0.11
4	Café	0.11

----City Square Mall, Rajouri Garden----

	venue	freq
0	Café	0.17
1	Indian Restaurant	0.13
2	Fast Food Restaurant	0.13
3	Pizza Place	0.09
4	Diner	0.04

----Civil Lines----

	venue	freq
0	Chinese Restaurant	0.2
1	Smoke Shop	0.2
2	Burger Joint	0.2
3	Light Rail Station	0.2
4	Coffee Shop	0.2

----Community Centre, New Friends Colony----

	venue	freq
0	Hotel	0.12
1	Café	0.12
2	Indian Restaurant	0.12
3	Pizza Place	0.08
4	Diner	0.04

----Connaught Place----

	venue	freq
0	Indian Restaurant	0.14
1	Café	0.09
2	Bar	0.08
3	Chinese Restaurant	0.06
4	Coffee Shop	0.06

----Crescent Square Mall, Rohini----

	venue	freq
0	Pharmacy	0.17
1	Shopping Mall	0.17
2	Mobile Phone Shop	0.17
3	Clothing Store	0.17
4	Market	0.17

----Cross River Mall, Karkardooma----

	venue	freq
0	Indian Restaurant	0.50
1	Pizza Place	0.25
2	Hotel	0.25
3	North Indian Restaurant	0.00
4	Mughlai Restaurant	0.00

----Crowne Plaza Hotel, Rohini----

	venue	freq
0	Clothing Store	0.14
1	Asian Restaurant	0.14
2	Shopping Mall	0.14
3	Theme Park	0.14
4	Fast Food Restaurant	0.14

----Crowne Plaza, Mayur Vihar Phase 1----

	venue	freq
0	Hotel	0.38
1	Department Store	0.08
2	Liquor Store	0.08
3	Restaurant	0.08
4	Asian Restaurant	0.08

----D Mall, Netaji Subhash Place----

	venue	freq
0	Indian Restaurant	0.18
1	Coffee Shop	0.12
2	Pizza Place	0.12
3	Fast Food Restaurant	0.12
4	Snack Place	0.06

----DDA Market, Kalu Sarai, Hauz Khas----

	venue	freq
0	Metro Station	0.2
1	Coffee Shop	0.2
2	Nightclub	0.2
3	Event Space	0.2
4	Chinese Restaurant	0.2

----DLF City Centre Mall, Shalimar Bagh----

	venue	freq
0	Shopping Mall	0.33
1	Convenience Store	0.17
2	Vegetarian / Vegan Restaurant	0.17
3	Multiplex	0.17
4	Gym / Fitness Center	0.17

----DLF Emporio Mall, Vasant Kunj----

	venue	freq
0	Coffee Shop	0.09
1	Italian Restaurant	0.07
2	Asian Restaurant	0.07
3	Fast Food Restaurant	0.07
4	Shopping Mall	0.07

----DLF Place Mall, Saket----

	venue	freq
0	Indian Restaurant	0.12
1	Clothing Store	0.07
2	Lounge	0.07
3	Café	0.07
4	Chinese Restaurant	0.05

----DLF Promenade Mall, Vasant Kunj----

	venue	freq
0	Coffee Shop	0.09
1	Italian Restaurant	0.07
2	Asian Restaurant	0.07
3	Fast Food Restaurant	0.07
4	Shopping Mall	0.07

----DLF South Square, Sarojini Nagar----

	venue	freq
0	Indian Restaurant	0.3
1	Fast Food Restaurant	0.2
2	Women's Store	0.1
3	Department Store	0.1
4	Market	0.1

----Daryaganj----

	venue	freq
0	Indian Restaurant	0.31
1	Hotel	0.15
2	Restaurant	0.15
3	Hostel	0.15
4	Asian Restaurant	0.08

----Defence Colony----

	venue	freq
0	Italian Restaurant	0.18
1	Bakery	0.12
2	Bar	0.12
3	Indian Restaurant	0.12
4	Burger Joint	0.06

----Delhi University-GTB Nagar----

	venue	freq
0	Chinese Restaurant	0.2
1	Café	0.2
2	Restaurant	0.2
3	Light Rail Station	0.1
4	Fast Food Restaurant	0.1

----Dilli Haat, INA----

	venue	freq
0	Northeast Indian Restaurant	0.2
1	Indian Restaurant	0.2
2	Train Station	0.2
3	Restaurant	0.2
4	Market	0.2

----Dilshad Garden----

	venue	freq
0	Indian Restaurant	0.25
1	Gym	0.25
2	Clothing Store	0.25
3	Market	0.25
4	ATM	0.00

----District Centre, Janakpuri----

	venue	freq
0	Indian Restaurant	0.25
1	Pizza Place	0.08
2	BBQ Joint	0.08
3	Restaurant	0.08
4	Hotel	0.08

----Dr. Zakir Hussain Marg----

	venue	freq
0	Indian Restaurant	0.25
1	Italian Restaurant	0.17
2	Golf Course	0.17
3	Café	0.08
4	North Indian Restaurant	0.08

----East Patel Nagar----

	venue	freq
0	Pizza Place	0.12
1	Chinese Restaurant	0.12
2	Indian Restaurant	0.06
3	Bar	0.06
4	Coffee Shop	0.06

----East of Kailash----

	venue	freq
0	Department Store	0.14
1	Vegetarian / Vegan Restaurant	0.14
2	Temple	0.14
3	Fast Food Restaurant	0.14
4	Coffee Shop	0.14

----Epicuria Food Mall, Nehru Place----

	venue	freq
0	Indian Restaurant	0.14
1	Coffee Shop	0.10
2	Electronics Store	0.07
3	Fast Food Restaurant	0.07
4	Dessert Shop	0.03

----Eros Hotel, Nehru Place----

	venue	freq
0	Fast Food Restaurant	0.12
1	Coffee Shop	0.08
2	Electronics Store	0.08
3	Japanese Restaurant	0.08
4	Frozen Yogurt Shop	0.04

----Essex Farms----

	venue	freq
0	Metro Station	0.25
1	Coffee Shop	0.25
2	Nightclub	0.25
3	Event Space	0.25
4	ATM	0.00

----Feroze Shah Road----

	venue	freq
0	Indian Restaurant	0.5
1	Park	0.5
2	ATM	0.0
3	Nightlife Spot	0.0
4	Moving Target	0.0

----Friends Colony----

	venue	freq
0	Hotel	0.33
1	Gym	0.17
2	Sculpture Garden	0.17
3	Neighborhood	0.17
4	Café	0.17

----GTB Nagar----

	venue	freq
0	Pizza Place	0.33
1	Juice Bar	0.33
2	Food Truck	0.33
3	North Indian Restaurant	0.00
4	Mughlai Restaurant	0.00

----Garden of Five Senses, Saket----

	venue	freq
0	Coffee Shop	0.25
1	Italian Restaurant	0.12
2	Garden	0.12
3	Asian Restaurant	0.12
4	Pub	0.12

----Ginger Hotel, Vivek Vihar----

	venue	freq
0	Hotel	0.33
1	Indian Restaurant	0.17
2	Café	0.17
3	BBQ Joint	0.17
4	Asian Restaurant	0.17

----Gourmet Hub, Pashim Vihar----

	venue	freq
0	Pizza Place	0.25
1	Indian Restaurant	0.25
2	Ice Cream Shop	0.25
3	Bakery	0.25
4	ATM	0.00

----Greater Kailash (GK) 1----

	venue	freq
0	Café	0.18
1	Indian Restaurant	0.12
2	Market	0.12
3	Plaza	0.06
4	Flea Market	0.06

----Greater Kailash (GK) 2----

	venue	freq
0	Restaurant	0.08
1	Asian Restaurant	0.08
2	Café	0.08
3	Indian Restaurant	0.08
4	Sandwich Place	0.05

----Greater Kailash (GK) 3----

	venue	freq
0	Restaurant	0.13
1	Café	0.13
2	Diner	0.07
3	Trail	0.07
4	Food Court	0.07

----Green Park----

	venue	freq
0	Indian Restaurant	0.23
1	Coffee Shop	0.15
2	Pizza Place	0.08
3	Donut Shop	0.08
4	Korean Restaurant	0.04

----Gujranwala Town----

	venue	freq
0	Snack Place	0.25
1	Indian Restaurant	0.25
2	Bakery	0.25
3	Nutritionist	0.25
4	ATM	0.00

----Hauz Khas----

	venue	freq
0	Coffee Shop	0.12
1	Indian Restaurant	0.12
2	Bar	0.08
3	Tea Room	0.08
4	Dessert Shop	0.08

----Hauz Khas Village----

	venue	freq
0	Café	0.14
1	Indian Restaurant	0.12
2	Restaurant	0.08
3	Lounge	0.06
4	American Restaurant	0.04

----Holiday Inn, Aerocity----

	venue	freq
0	Hotel	0.32
1	Bed & Breakfast	0.06
2	Hotel Bar	0.06
3	Indian Restaurant	0.06
4	Shoe Store	0.03

----Holiday Inn, Mayur Vihar----

	venue	freq
0	Hotel	0.29
1	Restaurant	0.12
2	Department Store	0.06
3	American Restaurant	0.06
4	Bakery	0.06

----Hotel Broadway, Daryaganj----

	venue	freq
0	Indian Restaurant	0.25
1	Asian Restaurant	0.12
2	Movie Theater	0.12
3	Hostel	0.12
4	Hotel	0.12

----Hotel City Park, Pitampura----

	venue	freq
0	Garden	0.2
1	Indian Restaurant	0.2
2	Park	0.2
3	Coffee Shop	0.2
4	Hotel	0.2

----Hotel Regent Grand, Karol Bagh----

	venue	freq
0	Pizza Place	0.13
1	Indian Restaurant	0.07
2	Bar	0.07
3	Coffee Shop	0.07
4	Chinese Restaurant	0.07

----Hotel The Royal Plaza, Janpath----

	venue	freq
0	Hotel	0.20
1	Indian Restaurant	0.17
2	Italian Restaurant	0.07
3	Restaurant	0.07
4	Cocktail Bar	0.07

----Hyatt Regency, Bhikaji Cama Place----

	venue	freq
0	Lounge	0.18
1	Hotel	0.18
2	Breakfast Spot	0.09
3	Bakery	0.09
4	Asian Restaurant	0.09

----INA----

	venue	freq
0	Indian Restaurant	0.25
1	Train Station	0.25
2	Northeast Indian Restaurant	0.25
3	Market	0.25
4	ATM	0.00

----IP Extension----

	venue	freq
0	Indian Restaurant	0.2
1	Pizza Place	0.1
2	Market	0.1
3	Food	0.1
4	Café	0.1

----ITC Maurya, Chanakyapuri----

	venue	freq
0	Hotel	0.11
1	Indian Restaurant	0.11
2	Café	0.09
3	Chinese Restaurant	0.06
4	Tea Room	0.03

----ITO----

	venue	freq
0	Plaza	0.11
1	Udupi Restaurant	0.11
2	Café	0.11
3	Historic Site	0.11
4	Art Museum	0.11

----India Gate----

	venue	freq
0	Government Building	0.25
1	Music Venue	0.25
2	Light Rail Station	0.25
3	National Park	0.25
4	ATM	0.00

----JMD Kohinoor Mall, Greater Kailash----

	venue	freq
0	Restaurant	0.14
1	Café	0.14
2	Ice Cream Shop	0.09
3	Pizza Place	0.09
4	BBQ Joint	0.05

----JNU----

	venue	freq
0	Shopping Mall	0.2
1	Airport Food Court	0.2
2	Indian Restaurant	0.2
3	Café	0.2
4	Clothing Store	0.2

----JW Marriott New Delhi----

	venue	freq
0	Hotel	0.31
1	Hotel Bar	0.07
2	Indian Restaurant	0.07
3	Metro Station	0.03
4	Punjabi Restaurant	0.03

----Jail Road----

	venue	freq
0	Indian Restaurant	0.25
1	Ice Cream Shop	0.12
2	Pizza Place	0.12
3	Indian Sweet Shop	0.12
4	Food Court	0.12

----Jama Masjid----

	venue	freq
0	Indian Restaurant	0.6
1	Mosque	0.2
2	Flea Market	0.2
3	ATM	0.0
4	North Indian Restaurant	0.0

----Janakpuri----

	venue	freq
0	Café	0.4
1	Park	0.2
2	Gym	0.2
3	Bakery	0.2
4	ATM	0.0

----Jangpura----

	venue	freq
0	Flea Market	0.2
1	BBQ Joint	0.2
2	Fast Food Restaurant	0.2
3	Chinese Restaurant	0.2
4	Sandwich Place	0.2

----Janpath----

	venue	freq
0	Indian Restaurant	0.18
1	Coffee Shop	0.09
2	Italian Restaurant	0.09
3	Hotel	0.06
4	Fast Food Restaurant	0.06

----Jasola----

	venue	freq
0	Soccer Stadium	0.2
1	Soccer Field	0.2
2	Breakfast Spot	0.2
3	Café	0.2
4	Pizza Place	0.2

----Jaypee Siddharth, Rajendra Place----

	venue	freq
0	Pizza Place	0.11
1	Fast Food Restaurant	0.11
2	Smoke Shop	0.06
3	Indian Restaurant	0.06
4	Coffee Shop	0.06

----Jaypee Vasant Continental, Vasant Vihar----

	venue	freq
0	Café	0.13
1	Pizza Place	0.09
2	Fast Food Restaurant	0.09
3	Chinese Restaurant	0.09
4	Coffee Shop	0.09

----Jor Bagh----

	venue	freq
0	Indian Restaurant	0.25
1	Record Shop	0.25
2	Bakery	0.25
3	Metro Station	0.25
4	ATM	0.00

----Kailash Colony----

	venue	freq
0	Hotel	0.16
1	Café	0.11
2	Bar	0.11
3	Dessert Shop	0.05
4	Indian Restaurant	0.05

----Kalkaji----

	venue	freq
0	Market	0.18
1	Fast Food Restaurant	0.18
2	Pizza Place	0.09
3	Sandwich Place	0.09
4	Food Truck	0.09

----Kamla Nagar----

	venue	freq
0	Breakfast Spot	0.17
1	Fast Food Restaurant	0.17
2	Chinese Restaurant	0.11
3	Indian Restaurant	0.11
4	Coffee Shop	0.11

----Kapashera----

	venue	freq
0	Music Store	0.2
1	IT Services	0.2
2	Food Truck	0.2
3	Andhra Restaurant	0.2
4	Food Court	0.2

----Karampura----

	venue	freq
0	Moving Target	0.25
1	Indian Restaurant	0.25
2	Vegetarian / Vegan Restaurant	0.25
3	Fried Chicken Joint	0.25
4	Nightlife Spot	0.00

----Karkardooma----

	venue	freq
0	Pizza Place	0.25
1	Indian Restaurant	0.25
2	Food Truck	0.25
3	Train Station	0.25
4	Nightlife Spot	0.00

----Karol Bagh----

	venue	freq
0	Indian Restaurant	0.24
1	Fast Food Restaurant	0.18
2	Pizza Place	0.06
3	Café	0.06
4	Bakery	0.06

----Kasbah, Greater Kailash (GK) 1----

	venue	freq
0	Café	0.16
1	Indian Restaurant	0.16
2	Italian Restaurant	0.11
3	Nightclub	0.05
4	Bakery	0.05

----Kashmiri Gate----

	venue	freq
0	Pizza Place	0.17
1	Bus Station	0.17
2	American Restaurant	0.17
3	Fast Food Restaurant	0.17
4	Historic Site	0.17

----Khan Market----

	venue	freq
0	Café	0.18
1	Coffee Shop	0.09
2	Bar	0.07
3	Chinese Restaurant	0.07
4	Asian Restaurant	0.05

----Kirti Nagar----

	venue	freq
0	Pizza Place	0.50
1	Fish & Chips Shop	0.25
2	Convenience Store	0.25
3	Mughlai Restaurant	0.00
4	Multicuisine Indian Restaurant	0.00

----Krishna Nagar----

	venue	freq
0	Pizza Place	0.50
1	Fast Food Restaurant	0.25
2	Department Store	0.25
3	Juice Bar	0.00
4	Jewelry Store	0.00

----Lado Sarai----

	venue	freq
0	Nightclub	0.2
1	Golf Course	0.2
2	Furniture / Home Store	0.2
3	Shopping Mall	0.2
4	BBQ Joint	0.2

----Lajpat Nagar 1----

	venue	freq
0	Indian Restaurant	0.18
1	Asian Restaurant	0.09
2	Arcade	0.09
3	Music Store	0.09
4	Cocktail Bar	0.09

----Lajpat Nagar 2----

	venue	freq
0	Pizza Place	0.12
1	Donut Shop	0.08
2	Café	0.08
3	Fast Food Restaurant	0.08
4	Indian Restaurant	0.08

----Lajpat Nagar 4----

	venue	freq
0	Fast Food Restaurant	0.17
1	Café	0.17
2	Market	0.17
3	Movie Theater	0.08
4	Restaurant	0.08

----Lawrence Road----

	venue	freq
0	Department Store	0.2
1	Light Rail Station	0.2
2	Basketball Court	0.2
3	Arts & Crafts Store	0.2
4	Pharmacy	0.2

----Laxmi Nagar----

	venue	freq
0	Pizza Place	0.2
1	Indian Restaurant	0.2
2	Grocery Store	0.2
3	Arcade	0.2
4	Snack Place	0.2

----Le Meridien, Janpath----

	venue	freq
0	Hotel	0.27
1	Restaurant	0.13
2	Indian Restaurant	0.13
3	Cocktail Bar	0.07
4	Italian Restaurant	0.07

----Lemon Tree Premier, Aerocity----

	venue	freq
0	Hotel	0.31
1	Hotel Bar	0.07
2	Indian Restaurant	0.07
3	Metro Station	0.03
4	Punjabi Restaurant	0.03

----Living Style Mall, Jasola----

	venue	freq
0	Indian Restaurant	0.33
1	Pizza Place	0.17
2	Bakery	0.17
3	Fast Food Restaurant	0.17
4	Soccer Stadium	0.17

----Lodhi Colony----

	venue	freq
0	Indian Restaurant	0.17
1	Asian Restaurant	0.08
2	Japanese Restaurant	0.08
3	Italian Restaurant	0.08
4	Flea Market	0.08

----Lodhi Road----

	venue	freq
0	Indian Restaurant	0.10
1	Diner	0.05
2	Flea Market	0.05
3	Café	0.05
4	Chinese Restaurant	0.05

----MG Road-----

	venue	freq
0	Furniture / Home Store	0.33
1	Indian Restaurant	0.33
2	Art Museum	0.33
3	ATM	0.00
4	North Indian Restaurant	0.00

----MGF Metropolitan Mall, Saket----

	venue	freq
0	Indian Restaurant	0.11
1	Clothing Store	0.07
2	Lounge	0.07
3	Chinese Restaurant	0.06
4	Shopping Mall	0.06

----MGM Club, Daryaganj-----

	venue	freq
0	Indian Restaurant	0.33
1	Restaurant	0.33
2	Road	0.17
3	Hotel	0.17
4	North Indian Restaurant	0.00

----Mahipalpur-----

	venue	freq
0	Hotel	0.29
1	Plaza	0.07
2	American Restaurant	0.07
3	Shoe Store	0.07
4	Spa	0.07

----Maidens Hotel, Civil Lines----

	venue	freq
0	Smoke Shop	0.2
1	Chinese Restaurant	0.2
2	Indian Restaurant	0.2
3	Hotel	0.2
4	Café	0.2

----Majnu ka Tila----

	venue	freq
0	Asian Restaurant	0.33
1	Café	0.11
2	Hotel	0.11
3	Tibetan Restaurant	0.11
4	Bus Station	0.11

----Malviya Nagar----

	venue	freq
0	Coffee Shop	0.17
1	Donut Shop	0.08
2	Pizza Place	0.08
3	Gym	0.08
4	Gym / Fitness Center	0.08

----Mandi House----

	venue	freq
0	Theater	0.19
1	Café	0.12
2	Art Gallery	0.12
3	Bakery	0.12
4	Indian Restaurant	0.12

----Mathura Road----

	venue	freq
0	Indian Sweet Shop	0.33
1	Indian Restaurant	0.33
2	Light Rail Station	0.33
3	ATM	0.00
4	North Indian Restaurant	0.00

----Mayapuri Phase 2----

	venue	freq
0	Garden	0.33
1	Food Truck	0.33
2	Restaurant	0.33
3	Nightlife Spot	0.00
4	Mughlai Restaurant	0.00

----Mayur Vihar Phase 1----

	venue	freq
0	Indian Restaurant	0.4
1	Gym / Fitness Center	0.4
2	Pizza Place	0.2
3	North Indian Restaurant	0.0
4	Mughlai Restaurant	0.0

----Mayur Vihar Phase 2----

	venue	freq
0	Wings Joint	0.2
1	Juice Bar	0.2
2	Ice Cream Shop	0.2
3	Sandwich Place	0.2
4	Café	0.2

----Mayur Vihar Phase 3----

	venue	freq
0	Hotel	0.5
1	Food	0.5
2	ATM	0.0
3	North Indian Restaurant	0.0
4	Mughlai Restaurant	0.0

----Mehrauli----

	venue	freq
0	Thai Restaurant	0.25
1	Bar	0.17
2	Lounge	0.08
3	Monument / Landmark	0.08
4	Café	0.08

----Metro Walk Mall, Rohini----

	venue	freq
0	Pizza Place	0.17
1	Shopping Mall	0.17
2	Fast Food Restaurant	0.17
3	Clothing Store	0.17
4	Theme Park	0.17

----Model Town 1----

	venue	freq
0	Convenience Store	0.25
1	Lake	0.25
2	Light Rail Station	0.25
3	Food Truck	0.25
4	ATM	0.00

----Model Town 2----

	venue	freq
0	Fast Food Restaurant	0.17
1	Donut Shop	0.17
2	Frozen Yogurt Shop	0.17
3	Men's Store	0.17
4	Coffee Shop	0.17

----Model Town 3----

	venue	freq
0	Indian Restaurant	0.5
1	Park	0.5
2	ATM	0.0
3	Nightlife Spot	0.0
4	Moving Target	0.0

----Moments Mall, Kirti Nagar----

	venue	freq
0	Moving Target	0.1
1	Fried Chicken Joint	0.1
2	Donut Shop	0.1
3	Shopping Mall	0.1
4	Metro Station	0.1

----Moti Bagh----

	venue	freq
0	South Indian Restaurant	0.2
1	Asian Restaurant	0.2
2	Pizza Place	0.2
3	Indian Restaurant	0.2
4	Café	0.2

----Moti Nagar----

	venue	freq
0	Fried Chicken Joint	0.33
1	BBQ Joint	0.33
2	Fast Food Restaurant	0.33
3	ATM	0.00
4	North Indian Restaurant	0.00

----Mukherjee Nagar----

	venue	freq
0	Indie Movie Theater	0.25
1	Ice Cream Shop	0.25
2	Gym	0.25
3	Bakery	0.25
4	ATM	0.00

----Munirka----

	venue	freq
0	Pizza Place	0.14
1	Department Store	0.14
2	Indian Restaurant	0.14
3	Grocery Store	0.14
4	Steakhouse	0.14

----Najafgarh----

	venue	freq
0	ATM	0.25
1	Electronics Store	0.25
2	Clothing Store	0.25
3	Food & Drink Shop	0.25
4	North Indian Restaurant	0.00

----Naraina----

	venue	freq
0	Pizza Place	0.25
1	Snack Place	0.25
2	Indian Restaurant	0.25
3	Café	0.25
4	Nightlife Spot	0.00

----Nehru Place----

	venue	freq
0	Coffee Shop	0.10
1	Indian Restaurant	0.10
2	Electronics Store	0.07
3	Fast Food Restaurant	0.07
4	Food	0.07

----Netaji Subhash Place----

	venue	freq
0	Indian Restaurant	0.18
1	Coffee Shop	0.12
2	Pizza Place	0.12
3	Fast Food Restaurant	0.12
4	Snack Place	0.06

----New Friends Colony----

	venue	freq
0	Café	0.17
1	Hotel	0.11
2	Pizza Place	0.11
3	Indian Restaurant	0.11
4	Plaza	0.06

----Nizamuddin----

	venue	freq
0	Indian Restaurant	0.22
1	Mughlai Restaurant	0.11
2	Pizza Place	0.11
3	Monument / Landmark	0.11
4	Park	0.11

----Okhla Phase 1----

	venue	freq
0	Electronics Store	1.0
1	ATM	0.0
2	North Indian Restaurant	0.0
3	Mughlai Restaurant	0.0
4	Multicuisine Indian Restaurant	0.0

----Okhla Phase 2----

	venue	freq
0	Hotel	1.0
1	ATM	0.0
2	North Indian Restaurant	0.0
3	Moving Target	0.0
4	Mughlai Restaurant	0.0

----PVR Anupam Complex----

	venue	freq
0	Pizza Place	0.29
1	Multiplex	0.14
2	Kebab Restaurant	0.14
3	Coffee Shop	0.14
4	Lounge	0.14

----Pacific Mall, Tagore Garden----

	venue	freq
0	Coffee Shop	0.1
1	Fast Food Restaurant	0.1
2	Multiplex	0.1
3	Shopping Mall	0.1
4	Donut Shop	0.1

----Paharganj----

	venue	freq
0	Hotel	0.36
1	Indian Restaurant	0.10
2	Restaurant	0.08
3	Hostel	0.05
4	Café	0.05

----Palam----

	venue	freq
0	Cosmetics Shop	0.5
1	Bar	0.5
2	ATM	0.0
3	Northeast Indian Restaurant	0.0
4	Multicuisine Indian Restaurant	0.0

----Palate of Delhi, Chanakyapuri----

	venue	freq
0	Campground	0.25
1	Golf Course	0.25
2	Bakery	0.25
3	Sake Bar	0.25
4	ATM	0.00

----Panchsheel Park----

	venue	freq
0	Pizza Place	0.17
1	Gaming Cafe	0.17
2	Furniture / Home Store	0.17
3	American Restaurant	0.17
4	Event Space	0.17

----Pandara Road Market----

	venue	freq
0	Indian Restaurant	0.35
1	Ice Cream Shop	0.12
2	Restaurant	0.06
3	Cafeteria	0.06
4	Chinese Restaurant	0.06

----Pandav Nagar----

	venue	freq
0	Dessert Shop	0.22
1	Park	0.11
2	Moving Target	0.11
3	Bus Station	0.11
4	Food & Drink Shop	0.11

----Paschim Vihar----

	venue	freq
0	Multicuisine Indian Restaurant	0.12
1	Coffee Shop	0.12
2	Pizza Place	0.12
3	Chinese Restaurant	0.12
4	Garden	0.12

----Patparganj----

	venue	freq
0	Indian Restaurant	0.25
1	Pizza Place	0.12
2	Dessert Shop	0.12
3	Gift Shop	0.12
4	Shopping Mall	0.12

----Piccadily Hotel, Janakpuri----

	venue	freq
0	Indian Restaurant	0.21
1	Chinese Restaurant	0.14
2	Fast Food Restaurant	0.14
3	Pizza Place	0.07
4	Hotel	0.07

----Pitampura----

	venue	freq
0	Market	0.25
1	Indian Restaurant	0.25
2	Light Rail Station	0.25
3	Snack Place	0.25
4	Pedestrian Plaza	0.00

----Pragati Maidan----

	venue	freq
0	Pool	0.25
1	Museum	0.12
2	Café	0.12
3	Historic Site	0.12
4	History Museum	0.12

----Prashant Vihar----

	venue	freq
0	Pizza Place	0.4
1	Airport	0.2
2	Indian Restaurant	0.2
3	Multiplex	0.2
4	ATM	0.0

----Preet Vihar----

	venue	freq
0	Pizza Place	0.17
1	Ice Cream Shop	0.17
2	Arcade	0.17
3	Fast Food Restaurant	0.17
4	BBQ Joint	0.17

----Premier Inn, Shalimar Bagh----

	venue	freq
0	Hotel	0.5
1	Café	0.5
2	ATM	0.0
3	North Indian Restaurant	0.0
4	Mughlai Restaurant	0.0

----Pride Plaza Hotel, Aerocity----

	venue	freq
0	Hotel	0.32
1	Hotel Bar	0.07
2	Indian Restaurant	0.07
3	Shopping Mall	0.04
4	Hotel Pool	0.04

----Punjabi Bagh----

	venue	freq
0	Chinese Restaurant	0.2
1	Donut Shop	0.2
2	Coffee Shop	0.2
3	Indian Restaurant	0.2
4	Garden Center	0.2

----Qutab Institutional Area----

	venue	freq
0	Indian Restaurant	0.25
1	Restaurant	0.25
2	Moroccan Restaurant	0.12
3	Modern European Restaurant	0.12
4	Food Truck	0.12

----R K Puram----

	venue	freq
0	Comfort Food Restaurant	0.2
1	Park	0.2
2	Coffee Shop	0.2
3	Café	0.2
4	Asian Restaurant	0.2

----Race Course----

	venue	freq
0	Food	0.17
1	Racetrack	0.17
2	Gym / Fitness Center	0.17
3	Business Service	0.17
4	History Museum	0.17

----Radisson Blu Plaza Delhi, Mahipalpur----

	venue	freq
0	Hotel	0.33
1	Thai Restaurant	0.17
2	American Restaurant	0.17
3	Indian Restaurant	0.17
4	Hotel Bar	0.17

----Radisson Blu, Paschim Vihar----

	venue	freq
0	Hotel	0.33
1	Fast Food Restaurant	0.17
2	Indian Restaurant	0.17
3	Coffee Shop	0.17
4	Food Truck	0.17

----Rajendra Place----

	venue	freq
0	Pizza Place	0.2
1	Fast Food Restaurant	0.2
2	Smoke Shop	0.1
3	Light Rail Station	0.1
4	Hotel	0.1

----Rajinder Nagar----

	venue	freq
0	Pizza Place	0.14
1	Sporting Goods Shop	0.14
2	Gym / Fitness Center	0.14
3	Sandwich Place	0.14
4	Market	0.14

----Rajouri Garden----

	venue	freq
0	Dessert Shop	0.1
1	Bakery	0.1
2	Gourmet Shop	0.1
3	Pub	0.1
4	Diner	0.1

----Rohini----

	venue	freq
0	Department Store	0.25
1	Café	0.25
2	Gym	0.25
3	Fast Food Restaurant	0.25
4	Multicuisine Indian Restaurant	0.00

----Roseate House, Aerocity----

	venue	freq
0	Hotel	0.31
1	Hotel Bar	0.07
2	Indian Restaurant	0.07
3	Metro Station	0.03
4	Punjabi Restaurant	0.03

----SDA----

	venue	freq
0	Café	0.25
1	Asian Restaurant	0.08
2	Chinese Restaurant	0.08
3	Coffee Shop	0.08
4	Sandwich Place	0.08

----Safdarjung----

	venue	freq
0	Coffee Shop	0.17
1	Dessert Shop	0.08
2	Convenience Store	0.08
3	Greek Restaurant	0.08
4	Nightclub	0.08

----Sainik Farms----

	venue	freq
0	Asian Restaurant	0.25
1	Pub	0.25
2	Bakery	0.25
3	Restaurant	0.25
4	ATM	0.00

----Saket----

	venue	freq
0	Multiplex	0.17
1	Café	0.11
2	Pizza Place	0.11
3	Indian Restaurant	0.11
4	Convenience Store	0.06

----Sangam Courtyard, RK Puram----

	venue	freq
0	Coffee Shop	0.15
1	Multiplex	0.15
2	Asian Restaurant	0.08
3	Café	0.08
4	Shopping Mall	0.08

----Sarita Vihar----

	venue	freq
0	Café	1.0
1	ATM	0.0
2	Movie Theater	0.0
3	Mughlai Restaurant	0.0
4	Multicuisine Indian Restaurant	0.0

----Sarojini Nagar----

	venue	freq
0	Fast Food Restaurant	0.4
1	Indian Restaurant	0.2
2	Snack Place	0.2
3	Pizza Place	0.2
4	Pedestrian Plaza	0.0

----Satyaniketan----

	venue	freq
0	Café	0.38
1	Deli / Bodega	0.12
2	Dumpling Restaurant	0.12
3	Snack Place	0.12
4	Bistro	0.12

----Sector 15, Dwarka----

	venue	freq
0	Light Rail Station	1.0
1	ATM	0.0
2	North Indian Restaurant	0.0
3	Mughlai Restaurant	0.0
4	Multicuisine Indian Restaurant	0.0

----Select Citywalk Mall, Saket----

	venue	freq
0	Indian Restaurant	0.12
1	Clothing Store	0.07
2	Lounge	0.07
3	Café	0.07
4	Chinese Restaurant	0.05

----Shahdara----

	venue	freq
0	Men's Store	0.33
1	Park	0.33
2	Chocolate Shop	0.33
3	ATM	0.00
4	Mughlai Restaurant	0.00

----Shahpur Jat----

	venue	freq
0	Bar	0.29
1	Chinese Restaurant	0.14
2	Furniture / Home Store	0.14
3	Indian Restaurant	0.14
4	Stadium	0.14

----Shakarpur----

	venue	freq
0	Light Rail Station	0.14
1	Diner	0.14
2	Shopping Mall	0.14
3	Snack Place	0.14
4	Gym	0.14

----Shalimar Bagh----

	venue	freq
0	Pizza Place	0.17
1	Convenience Store	0.17
2	Coffee Shop	0.17
3	Gym / Fitness Center	0.17
4	Bakery	0.17

----Shangri La's - Eros hotel, Janpath----

	venue	freq
0	Hotel	0.23
1	Indian Restaurant	0.15
2	Restaurant	0.08
3	Cocktail Bar	0.08
4	Italian Restaurant	0.08

----Shanti Niketan Marg----

	venue	freq
0	Pizza Place	0.25
1	Café	0.25
2	Convenience Store	0.25
3	Gourmet Shop	0.25
4	Mughlai Restaurant	0.00

----Sheikh Sarai----

	venue	freq
0	Thai Restaurant	0.38
1	Italian Restaurant	0.12
2	Café	0.12
3	Historic Site	0.12
4	Market	0.12

----Sheraton New Delhi Hotel, Saket----

	venue	freq
0	Indian Restaurant	0.13
1	Clothing Store	0.08
2	Lounge	0.05
3	Donut Shop	0.05
4	Chinese Restaurant	0.05

----South Extension 1----

	venue	freq
0	Coffee Shop	0.23
1	Pizza Place	0.15
2	Clothing Store	0.15
3	Indian Restaurant	0.15
4	Fast Food Restaurant	0.08

----South Extension 2----

	venue	freq
0	Indian Restaurant	0.25
1	Coffee Shop	0.19
2	Market	0.12
3	Pizza Place	0.12
4	Chinese Restaurant	0.06

----Southern Park Mall, Saket----

	venue	freq
0	Indian Restaurant	0.11
1	Lounge	0.07
2	Clothing Store	0.07
3	Bar	0.06
4	Chinese Restaurant	0.06

----Spark Mall, Kamla Nagar----

	venue	freq
0	Fast Food Restaurant	0.13
1	Breakfast Spot	0.13
2	Pizza Place	0.09
3	Coffee Shop	0.09
4	Chinese Restaurant	0.09

----Star City Mall, Mayur Vihar Phase 1----

	venue	freq
0	Hotel	0.29
1	Restaurant	0.12
2	Department Store	0.12
3	Bakery	0.06
4	Light Rail Station	0.06

----Subhash Nagar----

	venue	freq
0	Skating Rink	0.25
1	Park	0.25
2	Multiplex	0.25
3	Sculpture Garden	0.25
4	ATM	0.00

----Sunder Nagar----

	venue	freq
0	Indian Restaurant	0.23
1	Italian Restaurant	0.15
2	Hotel	0.15
3	Snack Place	0.08
4	Café	0.08

----T3 Domestic Arrival, Aerocity----

	venue	freq
0	Coffee Shop	0.21
1	Dessert Shop	0.14
2	Pizza Place	0.07
3	Fast Food Restaurant	0.07
4	BBQ Joint	0.07

----TDI Mall, Rajouri Garden----

	venue	freq
0	Fast Food Restaurant	0.16
1	Café	0.16
2	Indian Restaurant	0.16
3	Pizza Place	0.08
4	Dessert Shop	0.08

----Tagore Garden----

	venue	freq
0	Train Station	0.09
1	Indian Restaurant	0.09
2	Food Truck	0.09
3	Market	0.09
4	Gym	0.09

----Taj Vivanta, Khan Market----

	venue	freq
0	Café	0.17
1	Coffee Shop	0.09
2	Chinese Restaurant	0.07
3	Bar	0.07
4	Asian Restaurant	0.04

----The Ashok, Chanakyapuri----

	venue	freq
0	Nightclub	0.20
1	Indian Restaurant	0.20
2	Mediterranean Restaurant	0.07
3	Hotel	0.07
4	Bus Station	0.07

----The Claridges, Aurangzeb Road----

	venue	freq
0	Hotel	0.22
1	Mediterranean Restaurant	0.11
2	Hotel Bar	0.11
3	History Museum	0.11
4	Chinese Restaurant	0.11

----The Grand New Delhi, Vasant Kunj----

	venue	freq
0	Coffee Shop	0.12
1	Fast Food Restaurant	0.08
2	Clothing Store	0.08
3	ATM	0.04
4	Asian Restaurant	0.04

----The Imperial, Janpath----

	venue	freq
0	Hotel	0.17
1	Indian Restaurant	0.17
2	Italian Restaurant	0.10
3	Mediterranean Restaurant	0.07
4	Coffee Shop	0.07

----The India Mall, New Friends Colony----

	venue	freq
0	Hotel	0.14
1	Café	0.14
2	Indian Restaurant	0.14
3	Pizza Place	0.09
4	Plaza	0.05

----The Lalit New Delhi, Barakhamba Road----

	venue	freq
0	Indian Restaurant	0.22
1	Bakery	0.22
2	Asian Restaurant	0.11
3	North Indian Restaurant	0.11
4	Hotel Bar	0.11

----The Leela Ambience Convention Hotel----

	venue	freq
0	Shopping Mall	0.25
1	Indian Restaurant	0.25
2	Hotel	0.25
3	Café	0.25
4	ATM	0.00

----The Leela Palace, Chanakyapuri----

	venue	freq
0	Indian Restaurant	0.14
1	Pool	0.07
2	Northeast Indian Restaurant	0.07
3	Snack Place	0.07
4	Seafood Restaurant	0.07

----The Lodhi, Lodhi Road----

	venue	freq
0	Indian Restaurant	0.14
1	Hotel	0.14
2	Chinese Restaurant	0.14
3	Restaurant	0.07
4	Cocktail Bar	0.07

----The Park, Connaught Place----

	venue	freq
0	Hotel	0.21
1	Mediterranean Restaurant	0.07
2	Italian Restaurant	0.07
3	Indian Restaurant	0.07
4	Coffee Shop	0.07

----The Suryaa New Delhi, New Friends Colony----

	venue	freq
0	Hotel	0.12
1	Café	0.12
2	Indian Restaurant	0.12
3	Pizza Place	0.08
4	Diner	0.04

----The Taj Mahal Hotel, Mansingh Road----

	venue	freq
0	Japanese Restaurant	0.2
1	Indian Restaurant	0.2
2	Hotel Bar	0.2
3	Restaurant	0.2
4	Chinese Restaurant	0.2

----The Taj Palace Hotel, Chanakyapuri----

	venue	freq
0	Hotel	0.11
1	Indian Restaurant	0.11
2	Café	0.09
3	Chinese Restaurant	0.06
4	Tea Room	0.03

----The Uppal, Aerocity----

	venue	freq
0	Hotel	0.75
1	Indian Restaurant	0.25
2	ATM	0.00
3	North Indian Restaurant	0.00
4	Mughlai Restaurant	0.00

----The Village Restaurant Complex, Khel Gaon Marg----

	venue	freq
0	Bar	0.15
1	Karaoke Bar	0.08
2	Restaurant	0.08
3	Furniture / Home Store	0.08
4	Stadium	0.08

----Tilak Nagar----

	venue	freq
0	Fast Food Restaurant	0.4
1	Ice Cream Shop	0.2
2	Light Rail Station	0.2
3	Restaurant	0.2
4	ATM	0.0

----Tughlakabad Institutional Area----

	venue	freq
0	Bar	0.25
1	Hotel	0.25
2	Restaurant	0.25
3	Market	0.25
4	ATM	0.00

----Uday Park----

	venue	freq
0	Shopping Mall	0.14
1	Park	0.14
2	Music Venue	0.14
3	Market	0.14
4	Fast Food Restaurant	0.14

----Unity One Mall, Janakpuri----

	venue	freq
0	Indian Restaurant	0.22
1	Sandwich Place	0.22
2	Fast Food Restaurant	0.11
3	Pizza Place	0.11
4	Light Rail Station	0.11

----Uttam Nagar----

	venue	freq
0	ATM	0.5
1	Indian Restaurant	0.5
2	North Indian Restaurant	0.0
3	Moving Target	0.0
4	Mughlai Restaurant	0.0

----V3S Mall, Laxmi Nagar----

	venue	freq
0	Arcade	0.06
1	Office	0.06
2	Dessert Shop	0.06
3	Multiplex	0.06
4	Light Rail Station	0.06

----Vasant Kunj----

	venue	freq
0	Dessert Shop	0.12
1	Vegetarian / Vegan Restaurant	0.12
2	Sandwich Place	0.12
3	Fast Food Restaurant	0.12
4	Bar	0.12

----Vasant Square Mall, Vasant Kunj----

	venue	freq
0	Sandwich Place	0.1
1	Bar	0.1
2	Dessert Shop	0.1
3	Pizza Place	0.1
4	Spa	0.1

----Vasant Vihar----

	venue	freq
0	Café	0.12
1	Fast Food Restaurant	0.08
2	Chinese Restaurant	0.08
3	Coffee Shop	0.08
4	Restaurant	0.08

----Vasundhara Enclave----

	venue	freq
0	Bakery	0.5
1	Café	0.5
2	ATM	0.0
3	North Indian Restaurant	0.0
4	Multicuisine Indian Restaurant	0.0

----Vijay Nagar----

	venue	freq
0	Chinese Restaurant	0.17
1	Café	0.17
2	Restaurant	0.08
3	Coffee Shop	0.08
4	Cheese Shop	0.08

----Vikas Marg----

	venue	freq
0	Dessert Shop	0.25
1	Burger Joint	0.25
2	Burrito Place	0.25
3	Café	0.25
4	Northeast Indian Restaurant	0.00

----Vikaspuri----

	venue	freq
0	Fast Food Restaurant	0.4
1	Pizza Place	0.2
2	Indian Restaurant	0.2
3	Ice Cream Shop	0.2
4	North Indian Restaurant	0.0

----Vivek Vihar----

	venue	freq
0	Juice Bar	0.4
1	Japanese Restaurant	0.2
2	Bed & Breakfast	0.2
3	Athletics & Sports	0.2
4	North Indian Restaurant	0.0

----West End Mall, Janak Puri----

	venue	freq
0	Indian Restaurant	0.20
1	Chinese Restaurant	0.13
2	Fast Food Restaurant	0.13
3	BBQ Joint	0.07
4	Restaurant	0.07

----West Gate Mall, Rajouri Garden----

	venue	freq
0	Fast Food Restaurant	0.24
1	Pizza Place	0.12
2	Café	0.12
3	Dessert Shop	0.06
4	Multiplex	0.06

----West Patel Nagar----

	venue	freq
0	Pizza Place	0.2
1	Indian Restaurant	0.2
2	Sporting Goods Shop	0.2
3	Hotel	0.2
4	Metro Station	0.2

----Worldmark 1, Aerocity----

	venue	freq
0	Hotel	0.30
1	Bed & Breakfast	0.06
2	Hotel Bar	0.06
3	Indian Restaurant	0.06
4	Shoe Store	0.03

----Yusuf Sarai----

	venue	freq
0	Indian Restaurant	0.14
1	Coffee Shop	0.14
2	ATM	0.07
3	Bar	0.07
4	Asian Restaurant	0.07

----ibis New Delhi, Aerocity----

	venue	freq
0	Hotel	0.35
1	Hotel Bar	0.06
2	Indian Restaurant	0.06
3	Metro Station	0.03
4	Punjabi Restaurant	0.03

This is then converted into a Data Frame.

7.3 TOP 10 VENUES FOR EACH LOCALITY.

Out[113]:

	Locality	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	ARSS Mall, Paschim Vihar	Indian Restaurant	ATM	Market	Pizza Place	Multicuisine Indian Restaurant	Coffee Shop	Sandwich Place	Chinese Restaurant	Food Truck	Food Court
1	Adchini	Café	Indian Restaurant	Pub	Hotel	Women's Store	Fried Chicken Joint	French Restaurant	Food Truck	Food Court	Food & Drink Shop
2	Aditya Mega Mall, Karkardooma	Indian Restaurant	Pizza Place	Shopping Mall	Multiplex	Café	Hotel	French Restaurant	Food Truck	Food Court	Food & Drink Shop
3	Aerocity	Hotel	Rental Car Location	Airport Lounge	Coffee Shop	Airport Terminal	Fast Food Restaurant	Falafel Restaurant	Frozen Yogurt Shop	Fried Chicken Joint	French Restaurant
4	Aggarwal City Mall, Pitampura	Indian Restaurant	Pizza Place	Department Store	Food	Fast Food Restaurant	Falafel Restaurant	Frozen Yogurt Shop	Fried Chicken Joint	French Restaurant	Food Truck

Top 10 venues for each locality has been taken and displayed.

8 CLUSTERING

8.1 K-MEANS TO CLUSTER THE LOCALITY INTO 5 CLUSTERS.

k-Means clustering has been implemented with 5 clusters. The cluster labels are generated for each row in the data frame.

New Delhi Grouped data is merged with locality venue data to add latitude/longitude for each Locality.

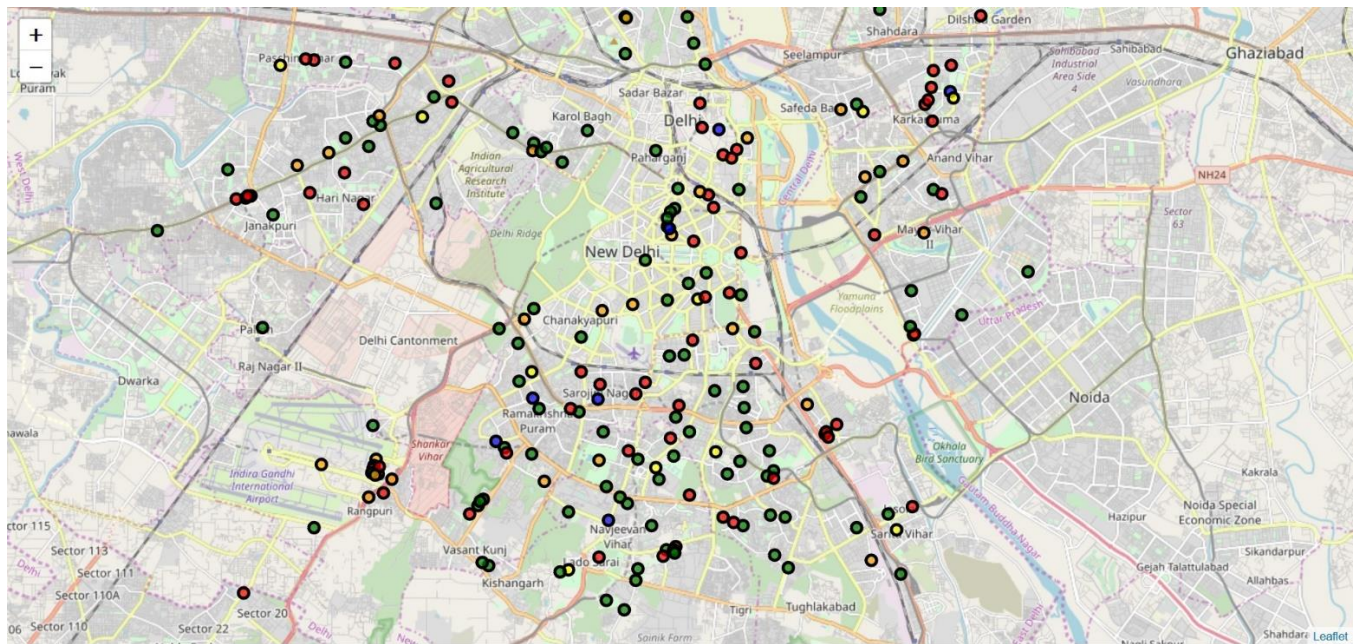
Out[96]:

	Locality	Lat	Lng	No_of_Restaurant	Cusines	Agg_Rating	Comments	No_of_Votes	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue
0	ARSS Mall, Paschim Vihar	28.668945	77.101544	1	North Indian, South Indian, Chinese, Mithai, F...	3.100000	Average	117	0	Indian Restaurant	ATM	Market	
1	Adchini	28.537063	77.197808	13	Fast Food, North Indian, Seafood, Continental,...	3.292308	Average, Good, Poor, Very Good	1560	2	Café	Indian Restaurant	Pub	
2	Aditya Mega Mall, Karkardooma	28.656131	77.301266	4	Finger Food, North Indian, Mughlai, Pizza, Fas...	3.275000	Average, Good	434	0	Indian Restaurant	Pizza Place	Shopping Mall	
3	Aerocity	28.553077	77.104270	2	Fast Food, Italian, Pizza, North Indian, Conti...	3.200000	Average	59	4	Hotel	Rental Car Location	Airport Lounge	
4	Aggarwal City Mall, Pitampura	28.690020	77.134650	3	North Indian, Chinese, Street Food, Mithai, No...	3.033333	Average	126	0	Indian Restaurant	Pizza Place	Department Store	






This is the final clustered data.

9 CLUSTER MAPS

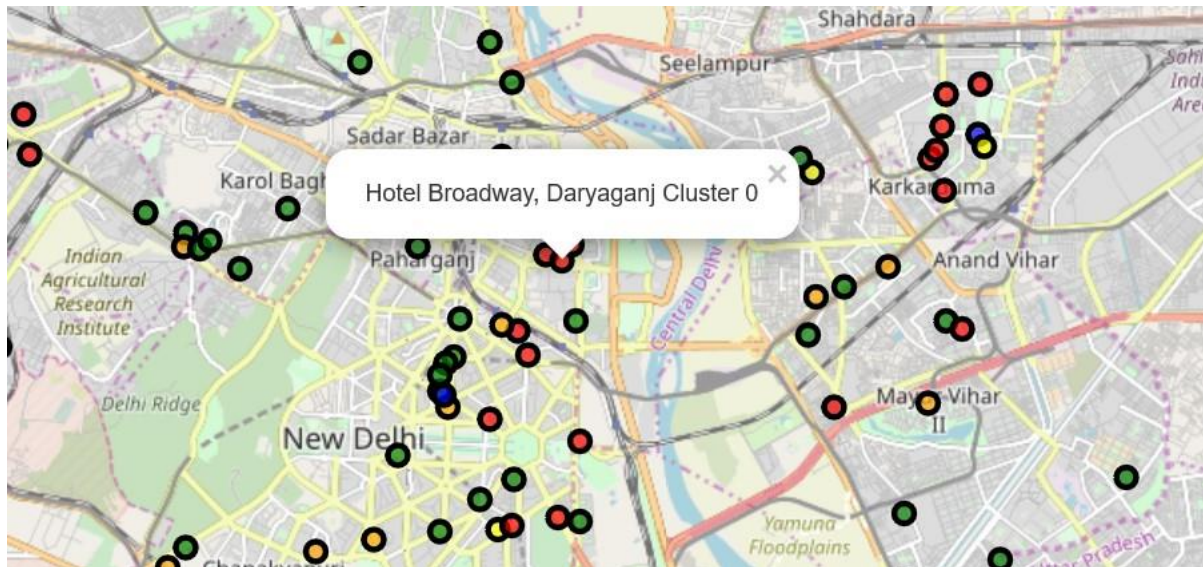
9.1 FINAL CLUSTER MAP:



There are total 5 clusters.

- **Cluster – 0** - 
- **Cluster – 1** - 
- **Cluster – 2** - 
- **Cluster – 3** - 
- **Cluster – 4** - 

9.2 CLUSTER – 0



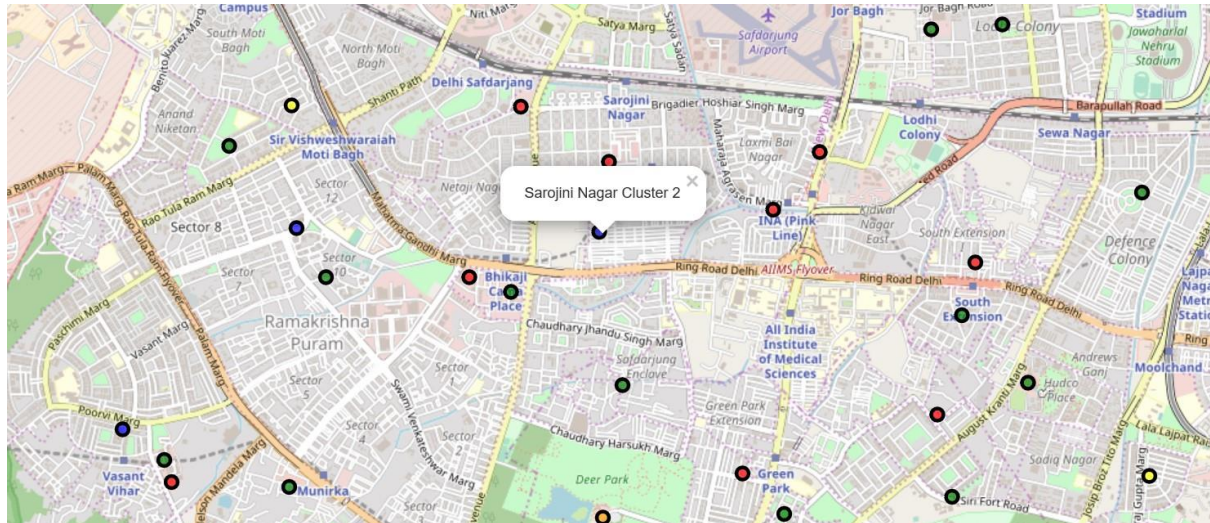
Cluster 0 is defined in red color.

9.3 CLUSTER – 1



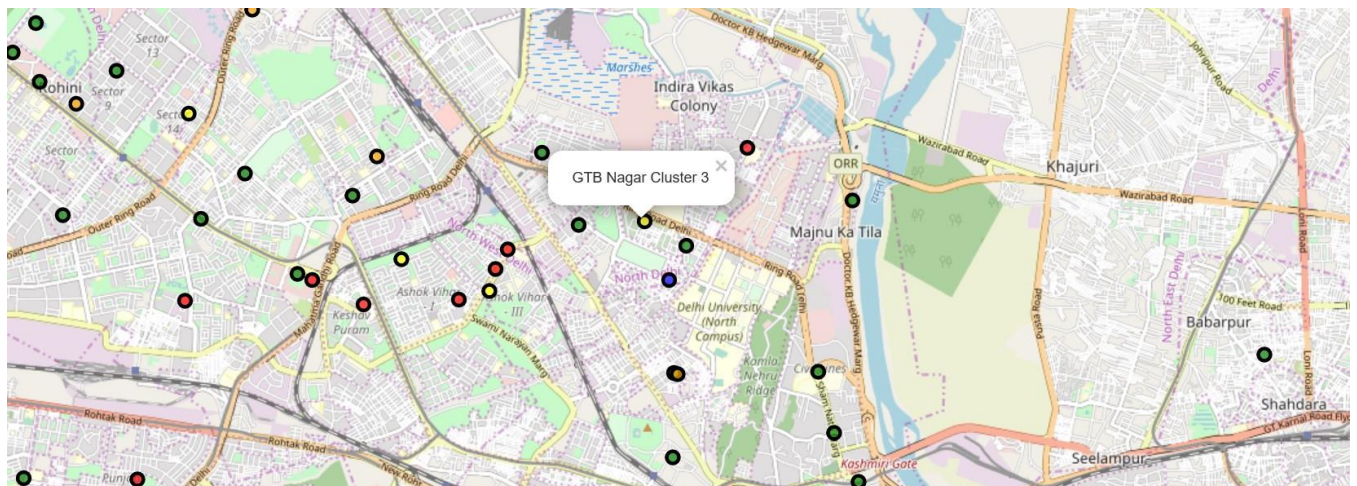
Cluster 1 is defined in green color.

9.4 CLUSTER – 2



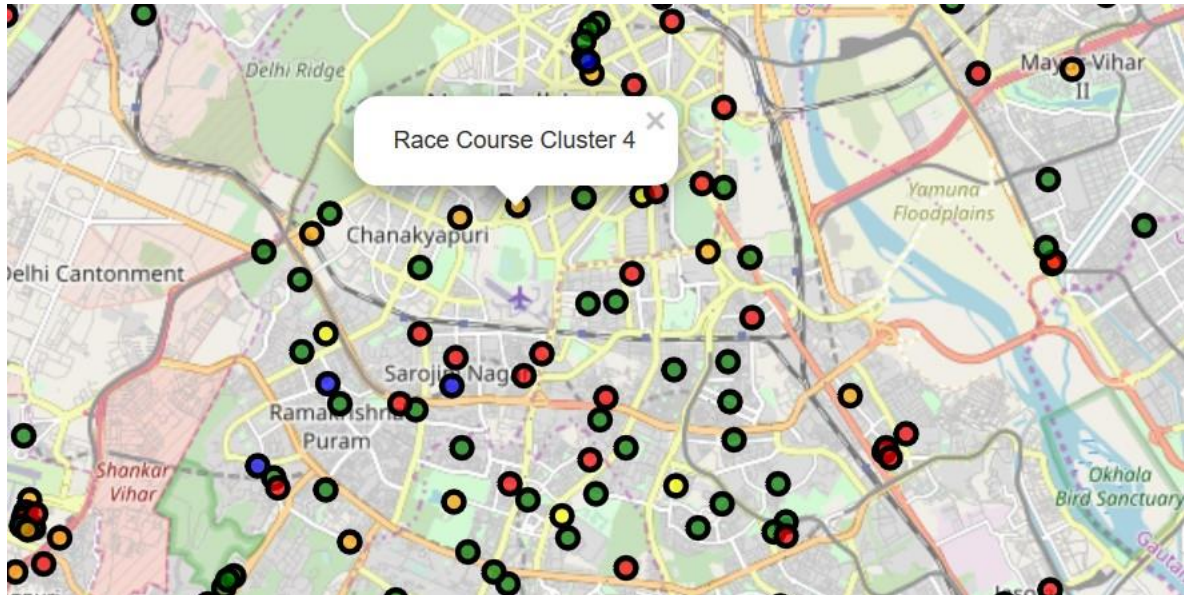
Cluster 2 is defined in blue color.

9.5 CLUSTER – 3



Cluster 3 is defined in yellow color.

9.6 CLUSTER – 4



Cluster 4 is defined in orange color.

10 CONCLUSION

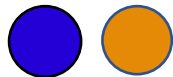
- Chanakyapuri, Pitampura, Safdarjung are some of the best neighborhoods for Chinese cuisine.
- Panchsheel Park, Nehru place have the best Chinese Restaurant.
- Connaught Place, Rajouri Garden, Malviya Nagar are the best places for an edible person.
- Greater Kailash, Firozeshah Rd, Saket have the best restaurants in New Delhi.



Cluster 0: It is most recommended for Indian Restaurants.



Cluster 1: It is most recommended for Hotels and nightclub.



Cluster 2 and Cluster 4: It is most recommended for Fast food.



Cluster 3: It is most recommended for the cafe and pizza.