Coursera Capstone Project

- NEIGHBORHOOD OF DELHI
- FROM
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Introduction

- our business model is B2C is based on recommending most visit venues near neighborhoods or suggesting neighborhood on based upon venues. Even the big renting companies like 'Airbnb' have started the same thing on one hand it gives tourist personal touch without doing hole in their pockets and it also makes business earn money by charging commissions with locals.

- Although this business model is B2C it can also be used by B2B if number of tourists increases, they can share some venues which will decrease the tourist expenses, increase the company's revenue per hour. Since, it could be hard to manage such things so a contract can be given to other companies for city experience in return of commission.

Find Districts of Delhi and add latitudes and longitudes to them as shown below.

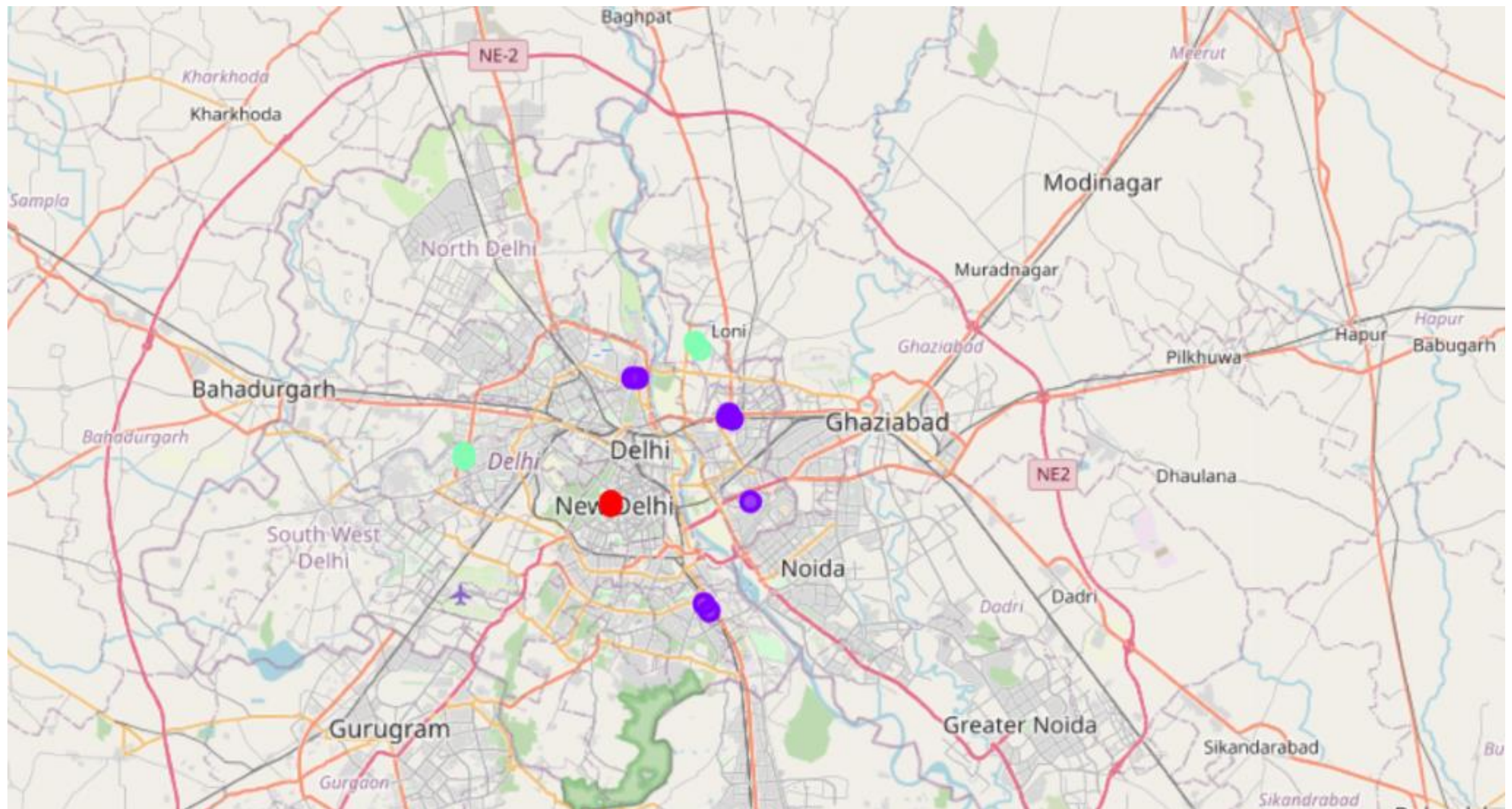|	District	Headquarters	Latitude	Longitude
0	New Delhi	Connaught Place	28.614179	77.202266
1	North West Delhi	Narela	28.614179	77.202266
2	North Delhi	Kanjhawala	28.614179	77.202266
3	West Delhi	Rajouri Garden	28.647952	77.085565
4	South West Delhi	Dwarka	28.586448	76.979153
5	South Delhi	Saket	28.485169	77.196380
6	South East Delhi	Defence Colony	28.544441	77.272873
7	Central Delhi	Daryaganj	28.698548	77.219391
8	North East Delhi	Seelampur	28.723308	77.266857
9	Shahdara	Shahdara	28.673333	77.289025
10	East Delhi	Preet Vihar	28.620477	77.309181

To explore the Neighborhood

First we need to find out Most usable venues of the Delhi to understand what they do the most.

Second we have to arrange them according to their districts so as to get the particular idea of the district.

And last we have to visualize the map in the form of clusters.

	District	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	Central Delhi	Park	Cosmetics Shop	Vegetarian / Vegan Restaurant	Platform	Museum	Light Rail Station	Gym	Gift Shop	Garden	Bakery
1	East Delhi	Gym	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gift Shop	Garden	Cosmetics Shop	Bakery
2	New Delhi	Museum	Garden	Vegetarian / Vegan Restaurant	Platform	Park	Light Rail Station	Gym	Gift Shop	Cosmetics Shop	Bakery
3	North Delhi	Museum	Garden	Vegetarian / Vegan Restaurant	Platform	Park	Light Rail Station	Gym	Gift Shop	Cosmetics Shop	Bakery
4	North East Delhi	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden	Cosmetics Shop
5	North West Delhi	Museum	Garden	Vegetarian / Vegan Restaurant	Platform	Park	Light Rail Station	Gym	Gift Shop	Cosmetics Shop	Bakery
6	Shahdara	Vegetarian / Vegan Restaurant	Platform	Light Rail Station	Gift Shop	Park	Museum	Gym	Garden	Cosmetics Shop	Bakery
7	South East Delhi	Light Rail Station	Auto Workshop	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Gym	Gift Shop	Garden	Cosmetics Shop
8	West Delhi	Bakery	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden

Cluster 1

	District Latitude	Venue Longitude	Venue Category	Cluster Labels	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
8	28.544441	77.275562	Light Rail Station	1	Light Rail Station	Auto Workshop	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Gym	Gift Shop	Garden	Cosmetics Shop
9	28.544441	77.271178	Auto Workshop	1	Light Rail Station	Auto Workshop	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Gym	Gift Shop	Garden	Cosmetics Shop
10	28.698548	77.220394	Park	1	Park	Cosmetics Shop	Vegetarian / Vegan Restaurant	Platform	Museum	Light Rail Station	Gym	Gift Shop	Garden	Bakery
11	28.698548	77.216670	Cosmetics Shop	1	Park	Cosmetics Shop	Vegetarian / Vegan Restaurant	Platform	Museum	Light Rail Station	Gym	Gift Shop	Garden	Bakery
15	28.673333	77.289011	Light Rail Station	1	Vegetarian / Vegan Restaurant	Platform	Light Rail Station	Gift Shop	Park	Museum	Gym	Garden	Cosmetics Shop	Bakery
16	28.673333	77.288999	Gift Shop	1	Vegetarian / Vegan Restaurant	Platform	Light Rail Station	Gift Shop	Park	Museum	Gym	Garden	Cosmetics Shop	Bakery
17	28.673333	77.290126	Vegetarian / Vegan Restaurant	1	Vegetarian / Vegan Restaurant	Platform	Light Rail Station	Gift Shop	Park	Museum	Gym	Garden	Cosmetics Shop	Bakery
18	28.673333	77.292520	Platform	1	Vegetarian / Vegan Restaurant	Platform	Light Rail Station	Gift Shop	Park	Museum	Gym	Garden	Cosmetics Shop	Bakery

Cluster 2

	District Latitude	Venue Longitude	Venue Category	Cluster Labels	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
19	28.620477	77.306951	Gym	2	Gym	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gift Shop	Garden	Cosmetics Shop	Bakery

Cluster 3

	District Latitude	Venue Longitude	Venue Category	Cluster Labels	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
6	28.647952	77.08696	Bakery	3	Bakery	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden
7	28.647952	77.08704	ATM	3	Bakery	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden
12	28.723308	77.26387	ATM	3	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden	Cosmetics Shop
13	28.723308	77.26387	ATM	3	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden	Cosmetics Shop
14	28.723308	77.26780	ATM	3	ATM	Vegetarian / Vegan Restaurant	Platform	Park	Museum	Light Rail Station	Gym	Gift Shop	Garden	Cosmetics Shop

Cluster: -1
The most Common venues in cluster -1 is vegetarian restaurant, Train platform station and cosmetics people who have plans to visit different cities apart from Delhi will be best fit into cluster 1 as it gives access to local cuisine, railways and markets, Bakery and museum.

Cluster: -2
As it can be seen the most common venue of this cluster is gym and if we see other venues, we will find that it does not have any venue to attracts tourists.

Cluster: -3
Now, Cluster 3 have mostly atm that is it shows lot of markets so best place for tourist to explore the city.

Final Suggestion: -
Based up on the above clusters I will suggest districts to visit for Tourists
1. North East Delhi
2. Shahdara
3. Central Delhi
4. South East Delhi

Thank You