Battle Of Neighborhood

Coursera_Capstone

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Introduction

- The food of India is popular not only among the Indians, it is very much popular among Non-Indians too.

- Indians are the second largest Asian group in the New York city.

- So to provide good Indian Food in New York city, by setting a business would be quite profitable.

- But To find a good place to establish a restaurant in the city is a challenge.

- Resolving this challenge is good for the people who wants to establish their business in the city.

Data Section

Data Required to resolve the problem

- List/Information on neighbourhoods form Manhattan with their Geodata (latitude and longitude).

- Venues and amenities in the Manhattan neighbourhoods

Sources and manipulation

- A csv file was created which will be read in order to create a data-frame and its mapping.

- Data was used to find the neighbourhoods in their geometrical coordinates(latitude, longitude). With the use of geolocator = Nominatim() , it was possible to determine the latitude and longitude for the geodata

3. Methodology:

- The approach to find the right neighbourhood was based on the analysis of data.

The analysis and the strategy:

- The strategy is based on mapping the described data in the above section, in order to facilitate the choice of Right place for business purpose. The choice is made to based on the demands imposed : location is popular between customers, with less options of Indian restaurants.

- The processing of these DATA and its mapping will allow to answer the key questions to make a right decision.

- which area of Manhattan meets criteria established?

Results

- These are the two neighbourhoods where the no. of Indian restaurant is low. But there are chances to target customers based on near by venues.

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
0	Manhattan	Chinatown	40.715618	-73.994279	0.0	Indie Movie Theater	Indie Theater	Indian Restaurant
6	Manhattan	Lincoln Square	40.773529	-73.985338	0.0	Indie Movie Theater	Indie Theater	Indian Restaurant

Results

- These are the three areas where no Indian Restaurants are yet established but have Indian theaters around in which clinton is famous for its restaurants, midtown south is an office area, roosevelt Island is residential area.

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
4	Manhattan	Roosevelt Island	40.762160	-73.949168	2.0	Indie Theater	Indie Movie Theater	Indian Restaurant
7	Manhattan	Clinton	40.759101	-73.996119	2.0	Indie Theater	Indie Movie Theater	Indian Restaurant
21	Manhattan	Midtown South	40.748510	-73.988713	2.0	Indie Theater	Indie Movie Theater	Indian Restaurant

- These are the neighbourhoods where the Indian restaurants are already establisd

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
1	Manhattan	Washington Heights	40.851903	-73.936900	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
2	Manhattan	Hamilton Heights	40.823604	-73.949688	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
3	Manhattan	Manhattanville	40.816934	-73.957385	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
5	Manhattan	Upper West Side	40.787658	-73.977059	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
8	Manhattan	Midtown	40.754691	-73.981669	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
9	Manhattan	Murray Hill	40.748303	-73.978332	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
12	Manhattan	Lower East Side	40.717807	-73.980890	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
14	Manhattan	West Village	40.734434	-74.006180	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
15	Manhattan	Manhattan Valley	40.797307	-73.964286	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
16	Manhattan	Morningside Heights	40.808000	-73.963896	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater
17	Manhattan	Financial District	40.707107	-74.010665	1.0	Indian Restaurant	Indie Theater	Indie Movie Theater

Results

- These are the places have all three venues there already established.

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
10	Manhattan	Chelsea	40.744035	-74.003116	3.0	Indie Theater	Indian Restaurant	Indie Movie Theater
13	Manhattan	Tribeca	40.721522	-74.010683	3.0	Indie Theater	Indie Movie Theater	Indian Restaurant

Results

- These are the place have most no. of Indian restaurants opening one more restaurant could not be a good option

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue
11	Manhattan	Greenwich Village	40.726933	-73.999914	4.0	Indian Restaurant	Indie Movie Theater	Indie Theater
19	Manhattan	Noho	40.723259	-73.988434	4.0	Indie Movie Theater	Indian Restaurant	Indie Theater

Discussino and Conclusion

- Chinatown and lincon square have Indian movie theatre so the no. of customers interested in Indian food could be a positive factor where the lincon square is small residential area and chinatown have already known for its Chinese food, so introducing an Indian Restaurant couldnt be a good choice for the business plan.

- Roosevolt, Clinton and Midtown south have indie theaters so the good no. of targeted customers can be assumed there, in which roosevolt is residential area, midtown south have offices there and clinton is famous for its restaurants and night clubs. **So, the Clinton can be a good choice to open an Indian restaurant in Manhattan, NYC.** and Midtown south can be a second choice as the higher no. of offices make it a crowded area.

Thank you!!