

# DATA SCIENCE CAPSTONE PROJECT REPORT

Opening a new Asian Restaurant in New  
Delhi, India

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# INTRODUCTION:

New Delhi is one of the most diverse cities in India due to the fact that it is the capital of the country.

With the ever growing population and the increased rate of global influence, different types of cuisines are becoming popular with Asian cuisine being at the fore-front because of its spices and herbs being similar to Indian Food.

## PROBLEM STATEMENT:

The Problem is that a friend wants to open an Asian Restaurant in the city but he is unable to select an optimal location.

The optimal location would depend on the level of competition as the demand is fairly even in the city.

## DATA:

There were two types of data used:

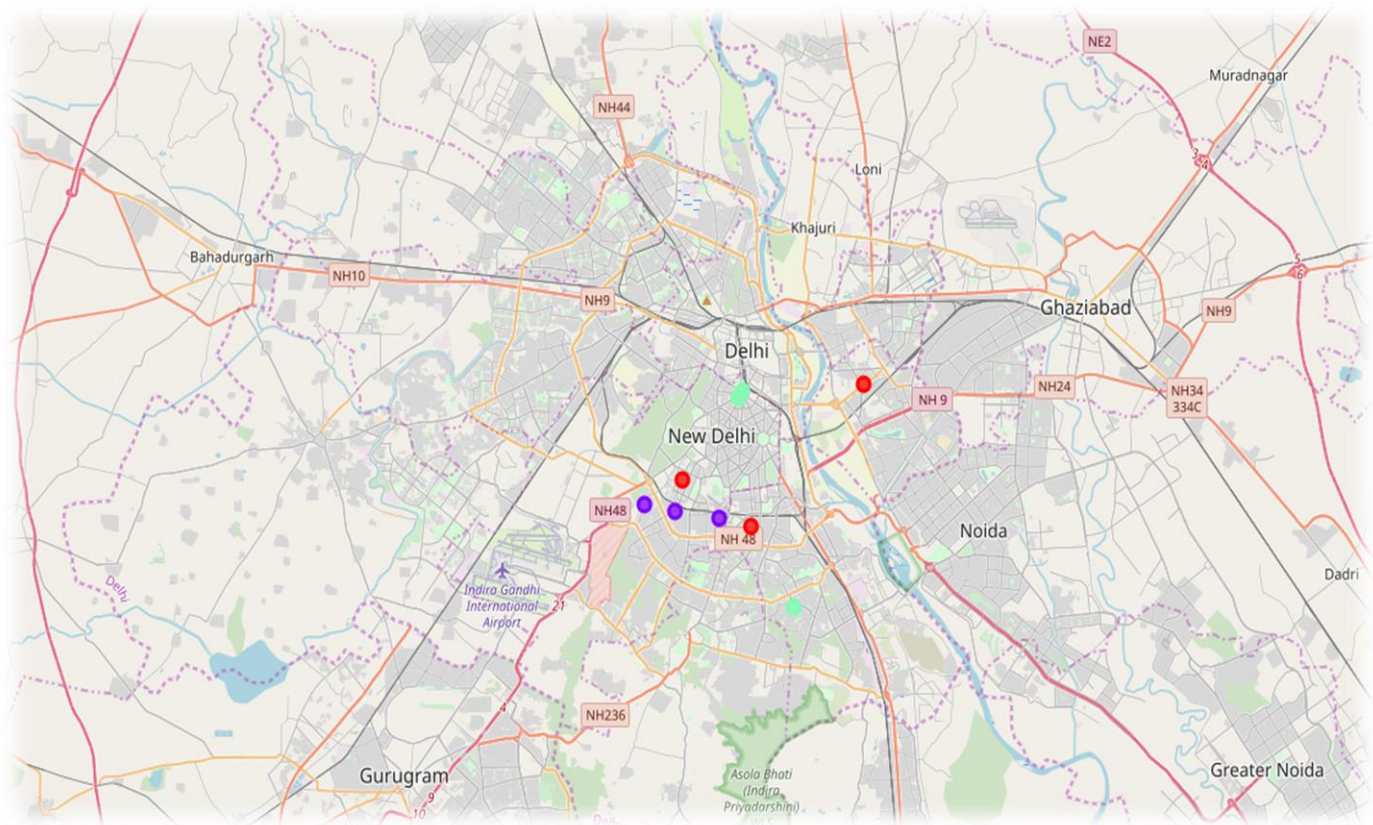
1. **Foursquare:** This was mainly used to get all the popular venues of the city to determine the best possible location(cluster) to open an Asian Restaurant.
2. **Wikipedia** ([https://en.wikipedia.org/wiki/Category:New\\_Delhi\\_district](https://en.wikipedia.org/wiki/Category:New_Delhi_district))- This was mainly used to get the list of districts in New Delhi, India to get the data from foursquare.

*These data together were combined to fine the final result that was mentioned earlier.*

# METHODOLOGY

The aim was to find the best location to open an Asian Restaurant in New Delhi, India. Hence we needed the Wikipedia data to collect information about all the districts and foursquare data to get the restaurant data for all these cities. So there were four steps to it:

- Get district data
- Get foursquare data for these districts.
- Form Clusters of these districts.
- Check which cluster have this restaurant type as the most popular



# RESULTS

The project helped in finding out about the best possible location to open an Asian Restaurant in New Delhi, India by looking at the data of existing

CLUSTER 0



	Neighborhood	Asian Restaurant	Cluster Labels	Latitude	Longitude
0	Chanakyapuri	0.012195	0	28.59506	77.18573
3	Kotla Mubarakpur Complex	0.010000	0	28.57435	77.22419
7	New Delhi district	0.000000	0	28.63720	77.28752

CLUSTER 1



	Neighborhood	Asian Restaurant	Cluster Labels	Latitude	Longitude
4	Laxmibai Nagar	0.030000	1	28.578150	77.206180
5	Moti Bagh	0.029851	1	28.583620	77.164740
8	New Moti Bagh	0.040000	1	28.580997	77.181823

CLUSTER 2



	Neighborhood	Asian Restaurant	Cluster Labels	Latitude	Longitude
1	Chittaranjan Park	0.02	2	28.53840	77.24832
2	Connaught Place, New Delhi	0.02	2	28.63394	77.21968
6	New Delhi	0.02	2	28.63095	77.21721

# CONCLUSION

Cluster 1 has the most amount of Asian Restaurants in the New Delhi Area and while Cluster 2 is not that behind, Cluster 0 has almost negligible presence in the Asian Restaurant Market. Therefore, this project recommends my friend to capitalize on these findings to open new Asian Restaurant in neighborhoods in cluster 0 with little to no competition or Cluster 2 where there is moderate competition. Even though the market for Asian Restaurant doesn't seem to be saturated in Cluster 1, the other 2 clusters present a better opportunity at this point.