

Coursera Capstone – Final Project

Finding a suitable place to open a shopping mall in Delhi.

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Introduction/ Business Problem

The shopping mall is an emerging and lucrative business in India. However, the business demands the right strategic planning with financial and marketing planning. Shopping malls are getting tremendous popularity these days. And definitely, there are several reasons behind it. According to the retail industry experts, the demand for the mall will more increase in the coming years.

A business article presented that([How to Start a Shopping Mall Business In India - NextWhatBusiness](#)) when you are building a mall or shopping center, entire process starts with market research and ends with marketing and maintenance. First of all, you must do some market surveys or market research and then Finding the location and acquiring the land. Therefore, you should have a proper way to select a land for opening a shopping mall. You have to identify the competition and business opportunities.

Objective

The main goal of this research is to analyze and select the best locations in Delhi to open a new shopping mall. Data science and machine learning techniques like clustering can be used in this case. foursquare location API used to get venue details. Therefore, the project gives the solution to answer the business question: When a businessman looking for a land to a shopping mall in new Delhi, where would you recommend opening it?

Data

For finding an answer to the above problem, we have to use following datasets,

- List of boroughs and neighborhoods dataset with longitudes and latitudes and
- Venue data of shopping malls in the Delhi area (use the foursquare API to find all types of restaurants within a 1000-meter radius for every neighborhood.)

The List of boroughs and neighborhoods dataset was taken form Kaggle. ([Delhi Neighborhood Data | Kaggle](#))

	Borough	Neighborhood	latitude	longitude
0	North West Delhi	Adarsh Nagar	28.61419	77.07154
1	North West Delhi	Ashok Vihar	28.69945	77.18483
2	North West Delhi	Azadpur	28.70766	77.17555
3	North West Delhi	Bawana	28.79966	77.03288
4	North West Delhi	Begum Pur		
5	North West Delhi	Dhaka	39.03171	-90.2612
6	North West Delhi	Jahangirpuri	28.72597	77.16266
7	North West Delhi	Karala	28.73514	77.03251
8	North West Delhi	Keshav Puram	28.68893	77.16168
9	North West Delhi	Kingsway Camp	28.61426	77.20155
10	North West Delhi	Kohat Enclave	28.69804	77.14054
11	North West Delhi	Model Town	39.03171	-90.2612
12	North West Delhi	Narela	28.84261	77.09184

This has 4 columns namely, Borough, Neighborhood, latitude and longitude.

The Foursquare Places API provides location-based experiences with diverse information about venues, users, photos, and check-ins. The API supports real time access to places, Snap-to-Place that assigns users to specific locations, and Geo-tag.'(Wikipedia)

Here we are using the explore API call and filtering the search only to find venues that are identified as restaurants.