

Opening a Gymnasium in New Delhi Neighborhood

Business Problem

The objective of this capstone project is to analyze and select the best locations in the city of New Delhi, India to open a new Gymnasium (fitness center). Using data science and machine learning techniques this project aims to provide solutions to answer the business problem. The solution recommend the best neighborhood for opening the fitness center.

Target Audience

This project is particularly useful to property developers and investors looking to open or invest in new fitness center in New Delhi, India. This project is timely as the city is currently suffering from oversupply of fitness center. This project will lead to proper availability of gymnasiums throughtout the city. It will result in the benefit of the Investors and the customers.

Data

The data set that I have used for solving the problemis:

- A complete list of neighborhoods in New Delhi, India. Source of the data is Wikipedia.org
- Geographical coordinates (latitude and longitude) of those neighborhoods. Source of the data will be FourSquare.
- FourSquare provided Venue data which is related to Gymnasiums and Fitness center. Machine Learning Technique called Clustering will be used for solving the problem.

Data Sources

This wikipedia page (https://en.wikipedia.org/wiki/Category:Neighbourhoods_in_Delhi) contains a list of neighborhoods in New Delhi, with a total of 137 neighborhoods. we will use web scraping techniques to extract the data from the wikipedia page, with the help of Python requests and beautifulsoup packages. Then we will get the geographical coordinates of the neighborhoods using Python Geocoder package which will give us the latitude and longitude coordinates of the neighbors. After that, we will use the Foursquare API to get the venue data for those neighborhoods.