Coursera

Capstone Project:

IBM DATA SCIENCE

The Battle of Neighborhoods

Find a suitable location for *EAT-TO-GET-FIT* first outlet in Toronto

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Introduction: Business Problem

The fitness industry in Canada is growing at a rapid pace of more than 5% year on year. Being a fitness enthusiast myself, I would like to work on a problem faced by majority of people involved in fitness. We all know that exercise plays a vital in becoming fit. However, the *DIET* plays an even more important role in the overall process.

For exercise, people join GYM, FITNESS CENTERS or simply go to park. But when it comes to the diet, we are unable to manage it on our own. Hence, I have come up with an idea of launching a chain of *EAT-TO-GET-FIT* outlets in Canada. It will take care of the complete meal for the person enrolling for the service. The unique-selling-point of these outlets will be that they will be strategically located very near to the GYMs/Fitness Centers etc. so that the enrolled member can eat at the outlet/take home the food after their work-out.

In today's world, people are crazy about fitness and to sustain with the habit of exercising daily, they join a gym/fitness center. Meanwhile, *EAT-TO-GET-FIT* outlets will take care of their diet. I believe that this idea has a great potential and to test it in Canada, I would like to start with one outlet in Toronto. Now, to find the most optimal location for this outlet, I am taking up this project.

In this project, we will put our data science mind to work and find out the most promising location in Toronto. We plan to have the outlet near the Gym or Fitness Centers because post the workout, people need food to re-energize themselves.

The **target audience** for this project will be the entrepreneur who wants to find the location to open an eat to get fit outlet(restaurant)

Data Objective

Data Requirements:

- List of neighborhoods in Toronto, Canada
- Latitude and Longitude of these neighborhoods
- Venue Category data to understand the type of venues in each neighborhood

Data Fetching:

- Using the technique of web-scrapping to gather the list of neighborhoods in Toronto
- Installing the Geocoder package to fetch the Latitudes and Longitudes the neighborhoods
- Calling Foursquare API to get the details of various types of venues in these neighborhoods

Out of all the features considered, we will consider **Venue Category** equal to Gym to segment the data. This data will be used for data analysis (using techniques like clustering) to come up with the most suitable location for opening the first outlet of *EAT-TO-GET-FIT*.