Capstone Project - The Battle of Neighbourhoods

Overview :

I will be playing a role of a Consultant who helps people in Restaurant business by

Recommending appropriate location and cuisine type for the Restaurant .

This analysis is likely to increase the profit margin to a great extent by providing in depth analysis and providing answer to the most important questions :

- Where to open a new Restaurant
- Which type of Cuisine is best suitable for the business?

Problem Statement:

A Restaurant Company “XYZ” is looking to open new restaurants in Toronto area. They are not able to narrow down the location options and suitable cuisine for the restaurants. The company wants to find out the most suitable location for the restaurant which is likely to get maximum customers possible. Along with the location, the company also wants to find out the best suitable Cuisine according to the locality which will enhance the chances of the attracting more customers.

The Company have below cuisine options for the restaurant:

- Vegetarian / Vegan restaurant
- Mexican restaurant
- Indian restaurant
- Japanese restaurant
- Italian restaurant

Background:

Two years back the Restaurant company opened a restaurant in London.

The restaurant business was fine for first two months but soon the business started going down with very huge loss. Eventually the Company decided to close the restaurant due to the Campany had to incur a huge loss.

Keeping the incident in mind, the officials at the Restaurant company decided to get professional consultation for the detailed analysis of **where and what** before opening a new restaurant chain in Toronto.

Data Requirement:

This project will require below data:

- Postal Code, Borough, and Neighbourhood
- Geographical coordinates of the Neighbourhood
- Venues list
- Restaurant's preference of cuisine and location (if any).

Solution:

- First the Postal code data will be taken from a web page using Beautifulsoup.
- Get the geospatial data using the geocoder.
- Get the Venue related data using the Foursquare API.
- Analyse and Process the data to make it suitable for use.
- Implement clustering on the data.
- Visualize the data using charts, maps and tables get accurate analysis.
- Get the best possible combination of Location and cuisine for the Restaurant.