Data Science Project Week 4th

INTRODUCTION:

This is IBM Data Science Professional Certificate capstone project. In this project, I am creating a hypothetical scenario for a concept that there may not be enough Restaurants in Toronto Area for a particular cuisine. Therefore it might be a great opportunity for an entrepreneur who is based in Canada. As the particular cuisine that has less number of restaurants is popular among particular community, so the entrepreneur might think of opening its business in areas where the particular community resides. With the purpose in mind, finding the location to open such a restaurant is one of the most important decisions for this entrepreneur and I am designing this project to help him find the most suitable location.

BUSINESS PROBLEM:

The objective of this capstone project is to find the most suitable location for the entrepreneur to open Restaurant in that cuisine with less number of restaurents in Toronto,Canada. By using data science methods and tools along with machine learning algorithms such as clustering, this project aims to provide solutions to answer the business question : In Toronto, if an entrepreneur wants to open an a Restaurant, where should they consider opening it?

TARGET AUDIENCE:

The entrepreneur who wants to find the location to open authentic restaurant.

DATA:

To solve this problem, we will need below data:

List of neighborhoods in Toronto, Canada

Latitude and Longitude of these neighborhoods

Venue data to find which cuisine restaurant is less available. This will help us find the neighborhoods that are more suitable to open the particular restaurant.

EXTRACTING THE DATA:

Scrapping of Toronto neighborhoods via Wikipedia

Getting Latitude and Longitude data of these neighborhoods via Geocoder package

Using Foursquare API to get venue data related to these neighborhoods