

Find Locations to open a Italian Restaurent Using Maching Learnning

1-Introduction

Background

Toronto is a major central city for diversity since many people from different cultural atmospheres have brought their families and dreams to Toronto City. The city has consistently seen people from around the world move to the city and call it home. It has been a center for trade and economic growth. It is known world wide as a cultural melting pot. While other states have had immigration surges, none have compared to the diversity and sheer number of immigrants that have made their way to the City. So these number of varies cultures combined to create a great diversity for itself. Since People from all over the world tend to come up here, we can see some many of their cultural aspects Transport, Food, Clothing .

Restaurant is a place where people come to have food and drinks for a cost, People love to do many things and try something new or stick with their own routines, it depends on the individual and there are so many of them with different cultural and various aspects in Toronto city. There are so many cuisines, which is based on the style of cooking, the ingredients, dishes and techniques.

For this Capstone project , I am creating a hypothetical scenario for a concept Italian restaurateur who wants to explore opening an authentic Italian restaurant in Toronto and it might present a great opportunity for this entrepreneur who is based in Canada , this entrepreneur is thinking of opening this restaurant in locations where Italian food is popular . One of the important decisions for this entrepreneur is finding the location to open such a restaurant , so in this project I am trying 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 in order to open a new Italian restaurant in Toronto , Canada.

By using data science methods and Machine Learning methods such as clustering, this project aims to provide solutions to answer the business question : In Toronto if an entrepreneur wants to open an Italian restaurant, Where should they consider opening it ?

Target Audience

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

Data

To solve this problem, we will need the following data :

- List of neighborhoods in Toronto, Canada .
- Latitude and Longitude of these neighborhoods.
- Venue data related to Italian restaurants, this helps us find the neighborhoods that are most suitable to open an Italian restaurant .

Extracting Data

- Scraping of Toronto neighborhoods via Wikipedia
- Getting Latitude and data of these neighborhoods via Geocoder package
- Using Foursquare API to get venue data related to these neighborhoods

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