

IBM Capstone Project

Background

A novice businessperson plans to open up a restaurant in a health-conscious neighborhood in the city of Toronto nearby the most visited venues in order to gain more customers and is concerned to avoid competition which in his opinion could be achieved by either keeping a good distance from other restaurants or choosing a type of restaurant that is popular in other neighborhoods but non-existent in the chosen neighborhood.

Problem Description

This projects aims to help the businessman find the most suitable location and type of restaurant to start the business.

Data Description

For this project, we would require the following data:

1. Neighborhoods in the city of Toronto.
2. Health-consciousness in the neighborhoods.
3. Most visited venues in those neighborhoods.
4. Locations of existing restaurants in those neighborhoods.
5. Types of restaurants popular in those neighborhoods.

Data Sources

We would use the following sources to collect the data:

1. Wikipedia: to get the data of neighborhoods in Toronto.
2. <https://map.toronto.ca/wellbeing>: to get the data about the health-consciousness in the neighborhoods.
3. Cognitive class Toronto data: to get the latitudes and longitudes of the neighborhoods.
4. Foursquare: to get the data about the most visited venues as well as locations and types of existing restaurants.

Data Usage

We would divide the project in three phases:

1. First, we would rank the neighborhoods according to the Healthy Food Index (HFI) and shortlist a certain number (maybe 20 or 50) of neighborhoods for further analysis.
2. Second, we would explore the shortlisted neighborhoods. In the exploration part, we would be interested in three things: (i) most visited venues, (ii) locations of existing restaurants and (iii) the types of restaurants in the neighborhood.
3. Third, we would analyze and try to figure out a location and type of restaurant that would attract more customers and avoid competition with rivals.