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Course: Advanced Data Science with IBM Specialization

Peer-graded Assignment: Capstone Project - The Battle of Neighborhoods (Week 1)

Description

**Problem:** Charlie, a data scientist, is looking to invest money into a new business. His business partner and long-time friend is a chef and had decided to open a new Chinese restaurant in Toronto. Charlie is has decided to leverage his data-science skills to identify the perfect location (postal code) for the new restaurant.

Charlie must consider the market conditions including the current competition and population of the location to make the best choice when choosing the restaurant location.

The location of the restaurant must be such that there is constant foot traffic.

Determining the venues around the proposed location will be key to choosing the right location. The venues will be ranked using a point system, each venue contributing to the point count for a location (postal code).

Venues such as schools, movie theatres etc. will be weighted more heavily than a location such as a retirement home.

Charlie will create a comprehensive report on his finding to present to other project stakeholders as part of the business analysis

This analysis will then be used to justify the project charter.

**Restaurant:**

City: Toronto, ON, Canada

Type of Restaurant: Chinese

Tier: Mid

Target Audience: Middle-Upper class

Preferred location: In or near an area with a large Chinese population with little competition. Close to a mall or in a mall is preferred.

Solution**Data:**

Postal Codes

Population

Surrounding venues

TBD

**Tools:**

Foursquare API

Stats Canada published statistics

**Foursquare API**

1. Foursquare will be used to identify all the postal codes in Toronto. Once identified, they will be ranked with a points system based on population and surrounding venues.
2. Foursquare API will be again used to gather all venues within a postal code. These venues will be analyzed and given a point value based on characteristics (to be determined later).

**Stats Canada**

1. Stats Canada provides valuable statistics on the Canadian population. This information will be used to identify the most and least populated postal codes in the city.