Clustering Toronto neighborhood areas by surrounding restaurant type

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Introduction

Background

The Greater Toronto Area is one of the most populous in Canada, with a strong industry and many businesses. Restaurants are one aspect that contribute to the vibrant culture in the area. They are extremely important to both residents of the area and tourists visiting. Regarding tourists, restaurants are their primary food source when staying in hotels. Knowing which areas have certain types of food options for restaurants is critical for tourists.

Problem

Since restaurants have such a presence, it is extremely useful to cluster the various neighborhoods into locales with similar restaurants. This project aims to use the geographical coordinates of neighborhoods and the types of surrounding restaurants to categorize neighborhoods by type of restaurant.

Interest

For tourists, knowing which neighborhoods are similar and the characterizations of those neighborhoods is very useful. Tourists, when booking hotel reservations for the area can choose based on the surrounding restaurants, which are within walking distance. Depending on the cuisine or type of restaurant they prefer tourists can use the information to choose a hotel. Secondly, a restaurant owner opening a new shop can try to base their shop location off of this too. This tells them which neighborhoods competition may be clustered in and which neighborhoods competition is not as much. They can use the information to apply their business strategy and select an optimal opening location.