Capstone Project
The Battle Of Neighbourhoods

Introduction

The clustering will be based on the types (categories) of venues in the neighborhoods. Each of the resulting clusters should have neighborhoods that contain similar distribution of venues. For example, one cluster may contain neighborhoods that have many Italian restaurants, many coffee shops, and few medical centers; another cluster may contain neighborhoods with many residential buildings, many barbershops, and few Italian restaurants.

Data Acquisition and Preparation

To acquire data on venues and their categories, Foursquare API is used. Foursquare is one of the world largest sources of location and venue data. To retrieve the venues and their categories in a given neighborhood, the coordinates—the latitude and the longitude—of the neighborhood are sent in the API request.

Methodology

▪Retrive venue for each borough using Foursquare Api

▪Calculate mean values of the occurences of individual venue categories for each borough

▪Use K-mean clustering to cluster the best borough

▪Do step 1-3 for several radii around each borough

▪Compare the result

Result

After clustering the data of the respective neighborhoods, both cities (Boroughs) have venues which can be explored and attract the Tourists. The neighborhoods are much similar in features like Theaters, opera houses, food places, clubs, museums, parks etc. As far as concern to dissimilarity, it differs in terms of some unique places like historical places and monuments.

Observations & Recommendations

When we compare the tourist places, we observe that the historical place is only situated in Downtown Toronto and the Monument or landmark venue is in Manhattan neighborhoods. Similarly, Airport facility, Harbor, Sculpture garden and Boat or ferry services are also available in Downtown Toronto while venues like Nightlife, Climbing gym and Museums are present in Manhattan.

As far as concern to recommendations, we recommend Downtown Toronto Neighborhoods will be considered first to visit. The tourists have an easily travelling access due to Airport facility, which not only saves time but also helps to save money. This saved money can be utilized to explore more, the attracting venues.

Conclusion

The downtown Toronto and Manhattan neighborhoods have more like similar venues. As we know that every place is unique in its own way, so that's argument is present in both neighborhoods. The dissimilarity exists in terms of some different venues and facilities but not on a larger extent.