J.T.NKOMO

DATA SCIENCE CAPSTONE PROJECT

Battle of the Neighborhoods

Introduction

Data Science can be used to make business decisions. The decisions will be based on the analysis of large data sets. The use of Machine Learning Algorithms makes the analysis possible as this data can be analyzed.

Business Problem

For this project, New York City and Toronto City will be explored using Foursquare Location Data. Foursquare Location data gives venues and ratings of these venues based on Foursquare users. This data gives a fair picture of different venues found in a particular area. A comparison of New York City and Toronto City will be done based on the type of venues and frequency of each type.

J.T.NKOMO

Target Audience

When starting a business, an investor needs to do SWOT anlysis. This project will help potential investors who are looking at either starting a small business in either New York City or Toronto City. An investor needs to know who is the competition and where are they located.

When deciding on starting a certain type of business, an investor can find out which is the most common business and what is their rating according to customers. This will help in making an informed decision on location and type of business they can start.

Data

For this project, data on New York City and Toronto Boroughs and Neighborhoods will be used. The data shows the latitude and longitude of the different boroughs and neighborhoods. This data will then be used in the Foursquare API to locate venues with the boroughs and neighborhoods. The venues will then be classified into different categories.

New York data. json from IBM Skills Network Labs

```
[10]: neighborhoods.head()
```

	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

Toronto City data

Beautiful Soup is used to scrap web data from the following URL:

https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

This data is used to identify the different boroughs and neighborhoods in Canada. The latitudes and longitudes of these places is used in the Foursquare API.