


Applied Data Science Capstone



Introduction

- The Capstone project is for the Data Science certificate. From this project I am creating the scenario for the concept that there may not be enough in Indian restaurants in Toronto area. So, it might be a good opportunity for the enterprises with the Canada base. As the Indian food is popular enough among the world, so this enterprise might think of opening its business in areas where Asian food community resides. With the use of open mind for finding the location to open a restaurant is one of the important decisions for the enterprise and I am designing this data science project to help them to find the perfect location using this project.
- 



Business Problem

- The main goal of this project is to find the perfect accurate location from the enterprise or the entrepreneur
- To open a new Indian restaurant in Canada in Toronto Area by the use of the data science tools with the K-means clustering algorithm this aims to provide the accurate solution to answer the question:
- In Toronto, if an entrepreneur wants to open an Indian Restaurant, where should they consider opening it?



Target Audience:

- Enterprice or enterperner who want an accurate location to open a Indian restaurant
- 



Data

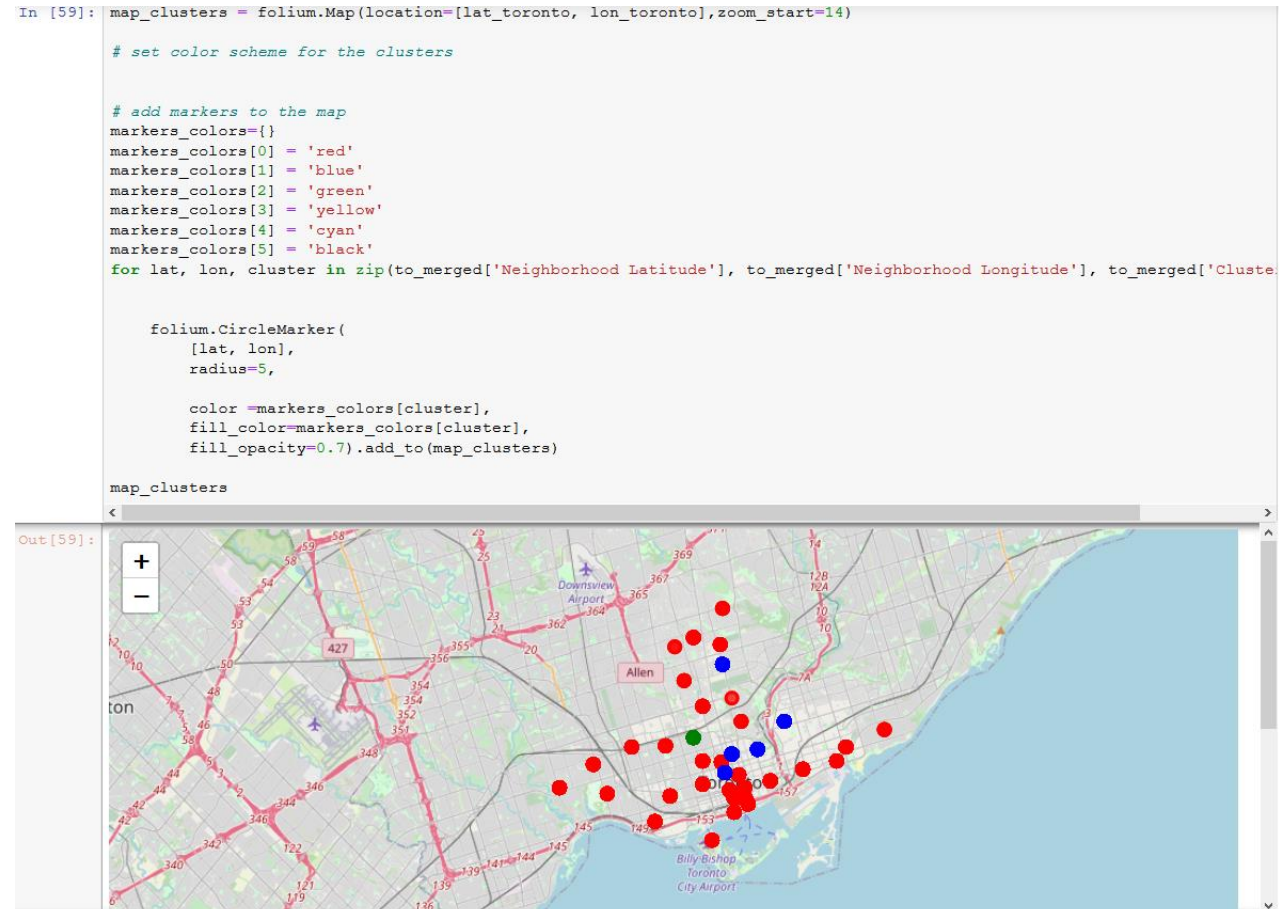
- To solve this problem, we will need below data:
 - List of neighborhoods in Toronto, Canada
 - Latitude and Longitude of these neighborhoods
 - Venue data related to Indian restaurants. This will help us find the neighborhoods that are more suitable to open an Indian Restaurant.



Extraction of data

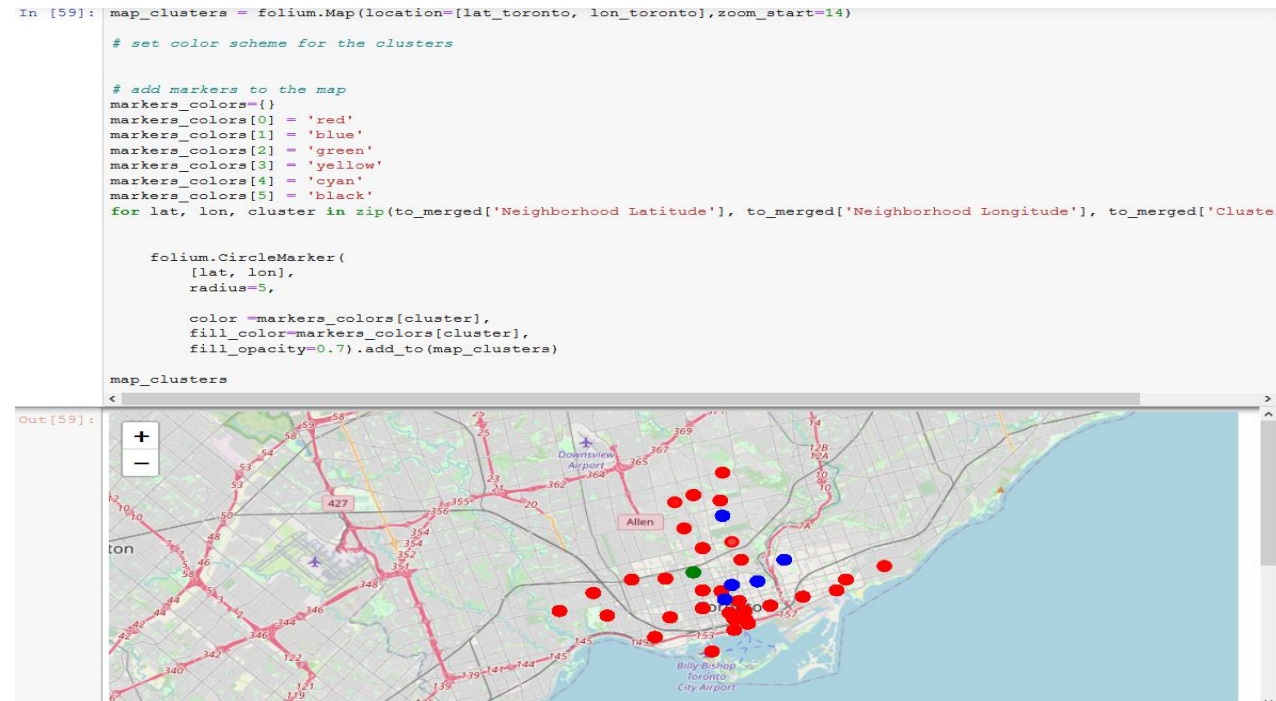
- Scrapping of Toronto neighborhoods via Wikipedia
 - Getting Latitude and Longitude data of these neighborhoods via Geocoder package
 - Using Foursquare API to get venue data related to these neighborhoods
-

Result



Result

- Cluster0(green)-neighbourhood with less no of Indian restaurents
- Cluster1(blue)-neighbour hood with no Indian restaurents
- Cluster 2(red) -neighbour hood with more o of Indian restaurents.





Conclusion

- Indian restaurants are in cluster 2 which is around Central Bay Street, Church and Wellesley, Berczy Park, Union Station, Richmond, lowest in Cluster 1 areas which are in North Toronto West and Parkade areas. Also, there are good opportunities to open near St James Town, Cabbagetown. Looking at nearby venues it seems cluster 0 might be a good location as there are not a lot of Indian restaurants in these areas. Therefore, this project recommends the entrepreneur to open an authentic Indian restaurant in these locations.



Thank you