



COFFEE SHOPS IN TORONTO

An analysis

INTRODUCTION

This data science analysis concerns a person who wants to open their own coffee shop in the city of Toronto. One of the first things that is to be determined is the location where he/she should open the shop.

THE PROBLEM

One of the greatest challenges to someone who wants to start their own cafe is to decide its location. A lot of factors play into this decision, but one of the most important elements to consider is the placement of its competition.

The aim is to help with this decision using data science by analysing the placement of all major coffee shops in the city and clustering them into groups.

The density and placement of the groups can help give insights as to what location the new coffee shop would most thrive in.

DATA REQUIREMENTS

The requirements are as follows:

1. Cafes/coffee shops in the city of interest (Toronto)
2. Location of the cafe in the form of its Latitude and Longitude coordinates.

Data Sourced from:

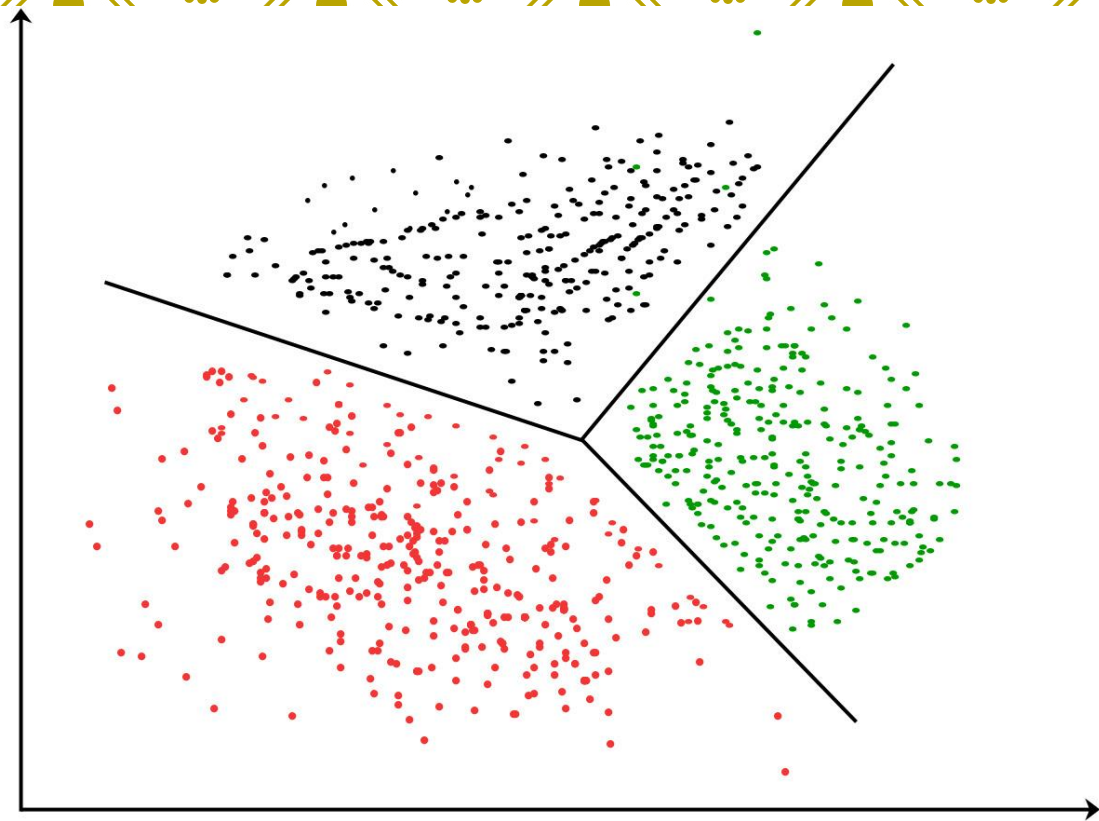


Foursquare API calls

EXPLAINING FOURSQUARE

Foursquare is a service that gives data about locations and places all around the world. It maintains a crowd-sourced map of venues around the world. Through simple API calls, we can gather information about places. For example calling a search with query as “coffee” and location as Toronto will return details of major coffee shops around Toronto.

```
import json, requests  
url = 'https://api.foursquare.com/v2/venues/explore'
```



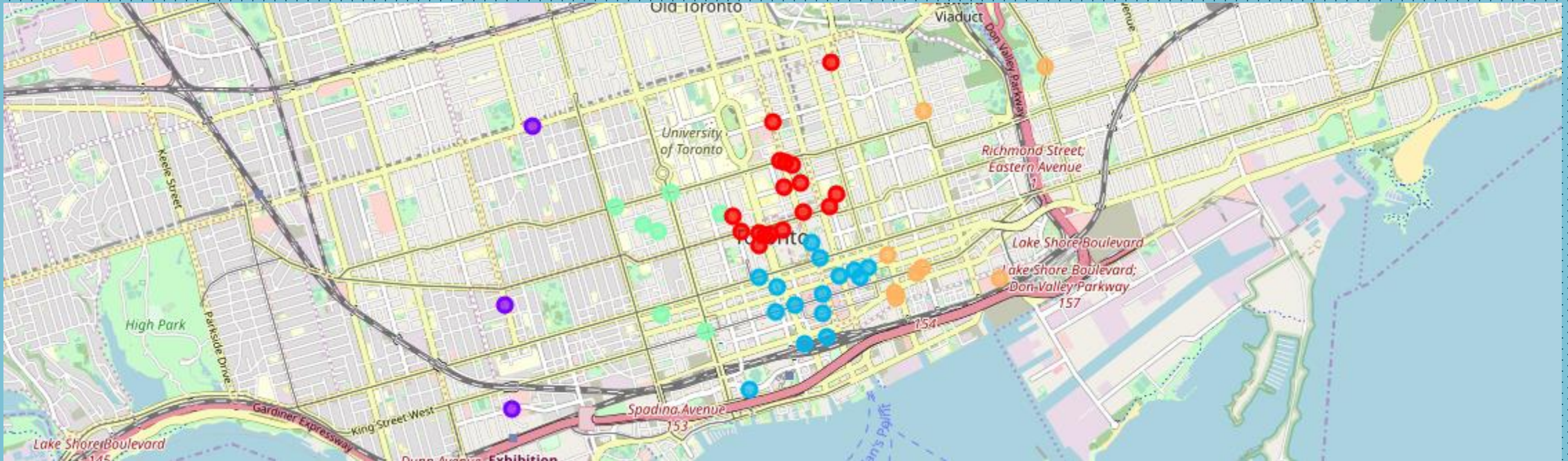
RESULTS

After gathering data and clustering

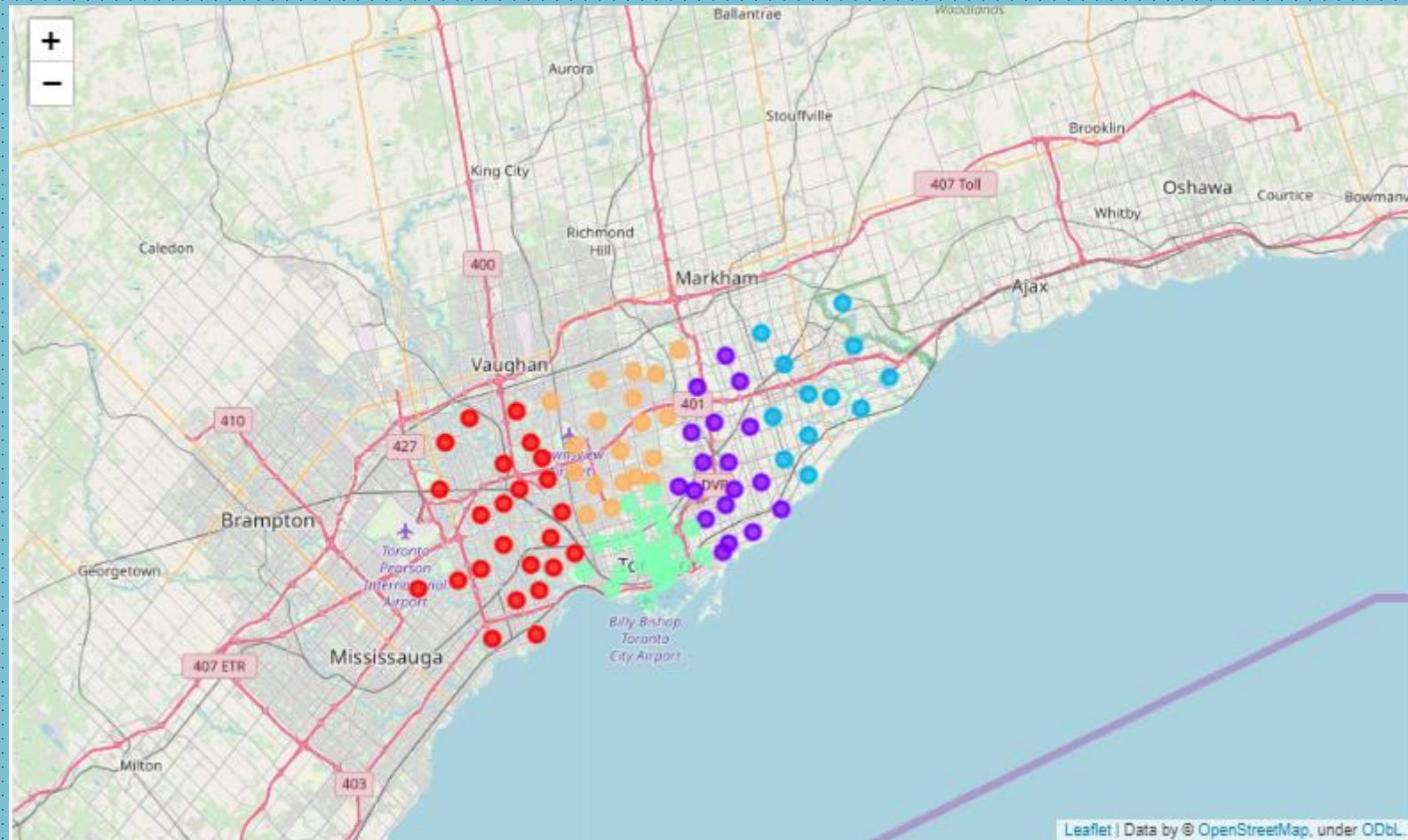


Where are the coffee shops located?

Divided into 5 clusters:



Neighbourhoods in Toronto



MAKING OBSERVATIONS

Using these two maps we can make observations about which neighborhoods have what concentration of coffee shops.

For example we find out that the areas in and around Kingsway have very few cafes so that might be a good location for the stakeholder to build his/her own shop.

FURTHER QUESTIONS

1. If an area is densely packed with coffee shops, what is the reason? Is it because of a large population there who is willing to pay for coffee, or is it something else?
2. Conversely, if an area doesn't have many cafes what is the reason? Is it because of a low population there or is it something else?
3. What all factors influence the density of a particular cluster of coffee shops? For example, its proximity to a college or office campus?