

Were you will be, my coffee shop?

This project was made for IBM course on data science.



Here we will find a suitable place for our business coffee shop.

□ 1 – Introduction

Toronto is a large city and therefore it has business activity. Accordingly, it would be good to give people the opportunity to discuss business over a cup of coffee at our coffee shop.



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2 – Data

We will use the data from Wikipedia about Toronto's districts, find the coordinates to them, and use the Foursquare requests to get data about these places. And then we'll work with them with clustering, and choose the best place!

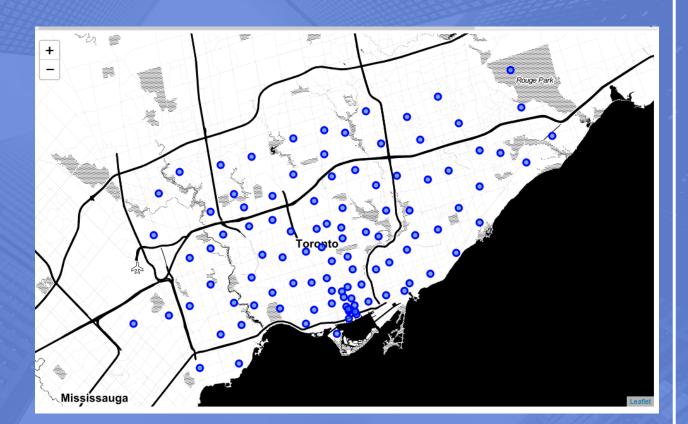


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□ 3 – Methodology

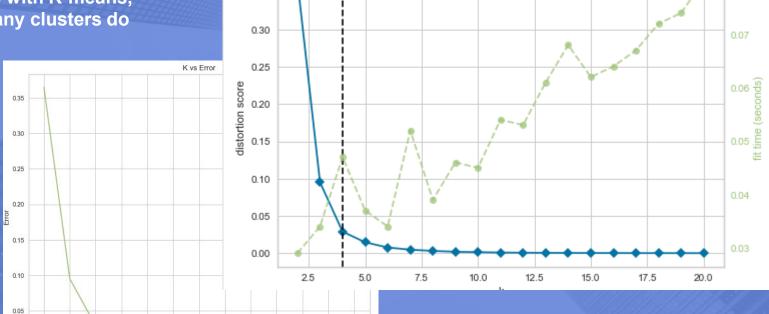
I will use the K-means clustering method, and I will configure it using the Elbow method to select the best number of clusters. Then I'll look at what features the clusters have and compare them.

Toronto has enough neighborhoods, but where better to open a coffee shop?



We do this with K-means, so how many clusters do we need?

0.00



0.35

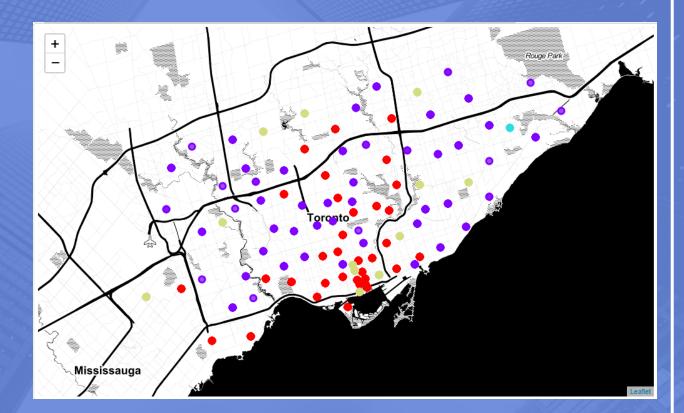
Values of K

Distortion Score Elbow for KMeans Clustering

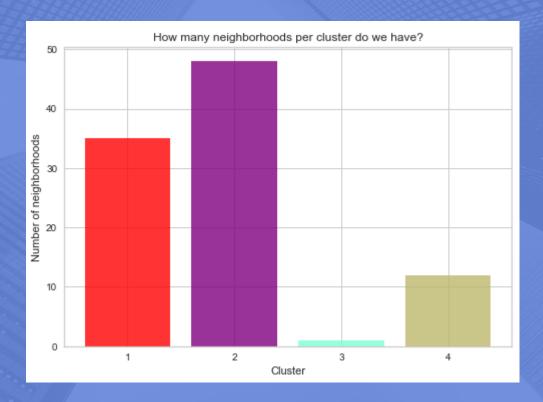
0.08

elbowatk = 4, score = 0.029

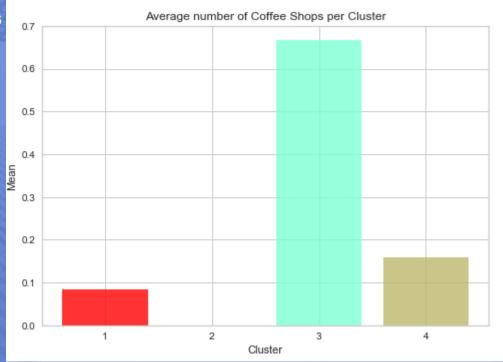
That's better.



How many neighborhoods per claster do we have?



How many coffee shops per cluster are there?





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4 – Results

We can see that the first two clusters have the largest number of neighbourhoods and the smallest number of competitors simultaneously.



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□ 5 – Discussion

According to the results of the study, I would recommend opening a coffee shop first in the second cluster, as there are no competitors at all, and if the business will develop then move to the first cluster, which has competitors, but it is quite promising.



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□ 6 – Conclusion

Of course, it is not that simple, a business should be successful, with a good strategy and attractiveness for customers, but the very first step we have already done, found a place to start.