SHOULD WE MOVE TO WHICH PART OF TORONTO?

PROJECT DESCRIPTION

Let's imagine that you have a great new job that can boost up your career!

BUT... That new job is requiring you to move to Toronto, Canada - a new country, new culture, new everything for you - to start a new life. How can you ensure that you will be fine when living there? Do you able to pay the house price for your family, school fees for your children? What's the weather there? The crime rates? The social life?

This project would help you to make a better decision on choosing the best place that suits you and your family. It helps you by providing a lot of information about Toronto, including the neighborhoods, the most common venues in each of those places, the average household income, renovation fees, etc.

By leveraging K-mean clustering unsupervised machine learning algorithm, all the venues belong to 2 neighborhoods - which we will choose randomly - will be categorized and displayed on the map. From that, you can easily distinguish the differences between the 2 places, as well as the similarities between them, to support you giving the best decision!

DATA SETS

2 data sets will be used to get more information about Toronto & its neighborhood

1. Foursquare API:
   According to Wikipedia: *"Foursquare is a local search-and-discovery service mobile app which provides search results for its users. The app provides personalized recommendations of places to go to near a user's current location based on users' "previous browsing history, purchases, or check-in history""* We can leverage Foursquare's API to gather detailed information about a place, its venues, its photos & many more related tips.

2. NextHome's website:
   https://nexthome.ca/
   We can find apartments, homes or condos for rent or for sale in Canada with this website. It also provides other knowledge about a specific place and its related information, including: Average Household Income, Average Renovation Cost, Overall Age of Housing, Top 3 Popular Languages and many other valuable things.

How they will be used?

- We need to register to Foursquare in order to use its API.
- Once we have the access keys, we can use them to retrieve information about various neighborhoods in Toronto.
- Then, build a map of Toronto with neighborhoods superimposed on top.
- Use K-Mean to clustering places into various clusters.
- Together with data from NextHome website, we then build a comprehensive information about places in Toronto.
- Visualize the data to give a better understanding
- And finally, make a conclusion!