Battle Of Neighborhood
Coursera Capstone Project (IBM)

Shivam Pandey

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Introduction:

BUSINESS PROBLEM

A Person , currently lives in west side of Toronto , And he loves his Neighborhood very much.

But , he got a great job offer from a great company on some other side of city . He cannot

reject such an great opportunity .

So , he decided to move there , we need to help him find a place closest to its job , which has most similar neighborhood as its previous location .

DATA COLLECTION

Neighborhood in Toronto

we will use week 3 data for our project To list cities .

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

We will use this list collect data from Foursquare API , such as Latitude , Longitude , various venues as defines in our Business statement .

After finding the list of neighborhoods, we then connect to the Foursquare API to gather information about venues inside each and every neighborhood. For each neighborhood, we have chosen the radius to be 3000 meter.

METHODOLOGY:

Here after cleaning data , we will use **FOURSQUARE API** to extract Latitude and Longitude of Postal Code .

After That we will also extract Counts of various basic amenities from foursquare .

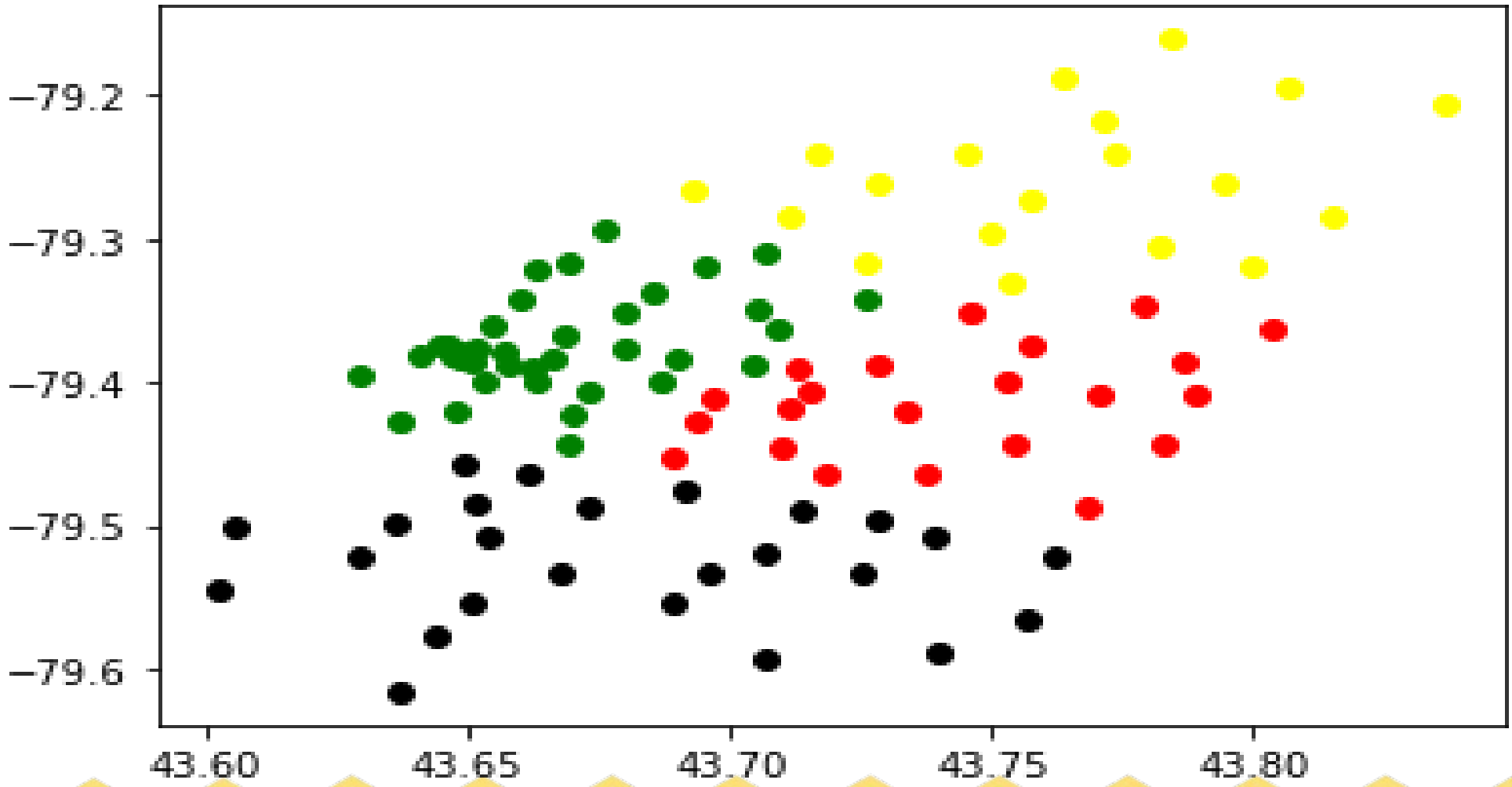
And Store all this in a Data Frame . We can assume all amenities such as school ,

transport ,hospitals, parks are equally important .

After that normalize each column and calculate a new column score i.e. sum of normalized

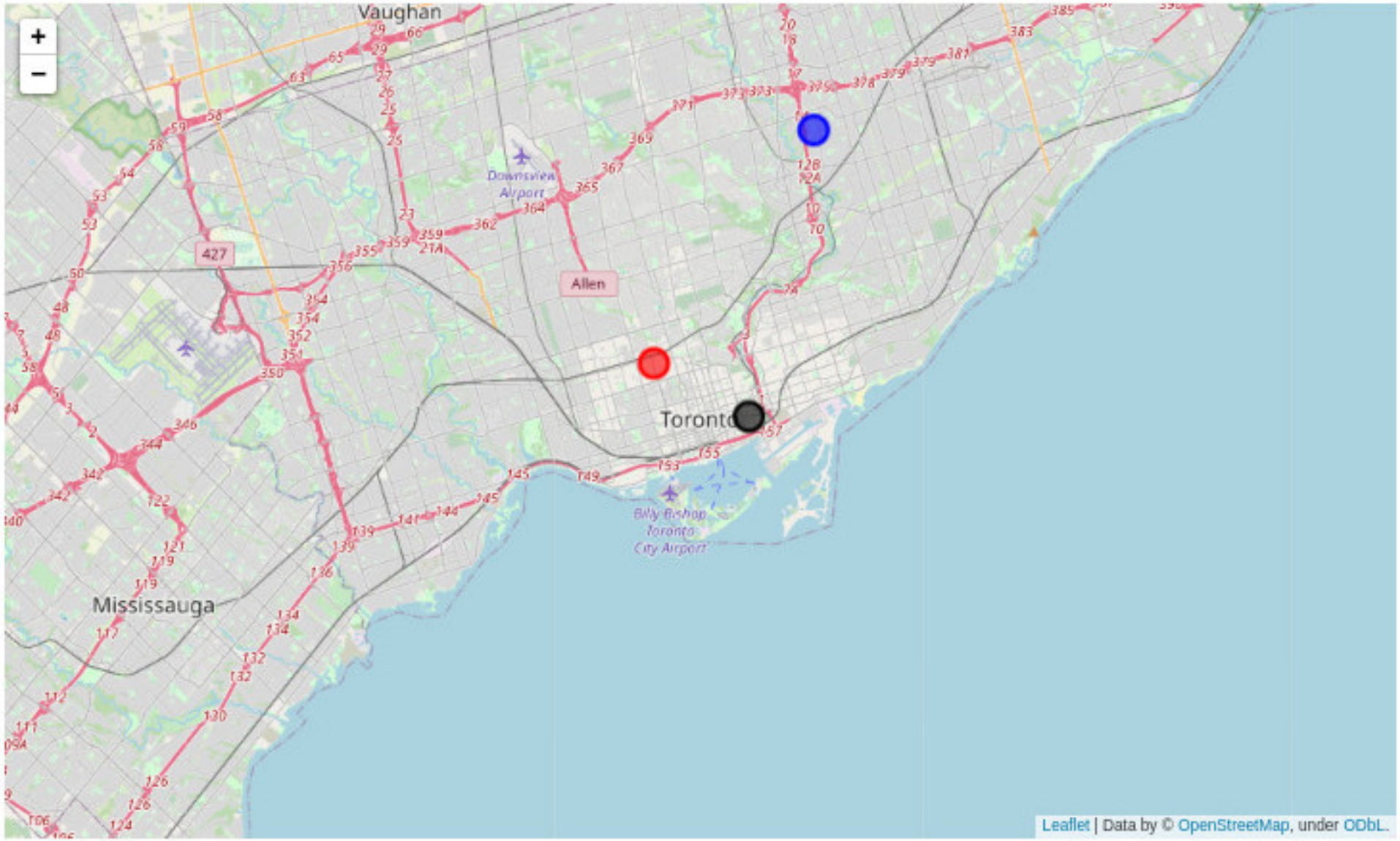
points of our parameters (amenities) and store it in a separate column.

After that Apply K – Means Clustering , and provide best possible values of k .



After that we can input our current_city and target_city , and will find city in cluster of target_city with minimum difference between score column with current_city

Out[119]:



RESULT:

Finally we stored information and used that in a useful form which can be used for our prediction .

We allotted scores to each Parameter and finally compare them on basis of that after Clustering.

It works best with Postal code info’s of out current and final city .

For Code you can refer:

https://github.com/shivam-pandey9/Coursera_Capstone/blob/master/BattleOfneighborhood.ipynb``

THANK YOU