Comparing borough venues in NA and Moscow

Introduction.

Let's suggest I would like to move from Moscow to NY and I would like to choose the similar borough when I live now. So I need to analyze boroughs in both cities and choose the the most similar that I live now. I assume realtors and headhunters might be interested in this solution because it can help to solve relocation problem.

Data

I have found json data for Moscow district in open source https://gis-lab.info/. The data are represented by the coordinates of the districts with their names. I had to clean data because the json file was represented by the shape but I need only centers of the districts.

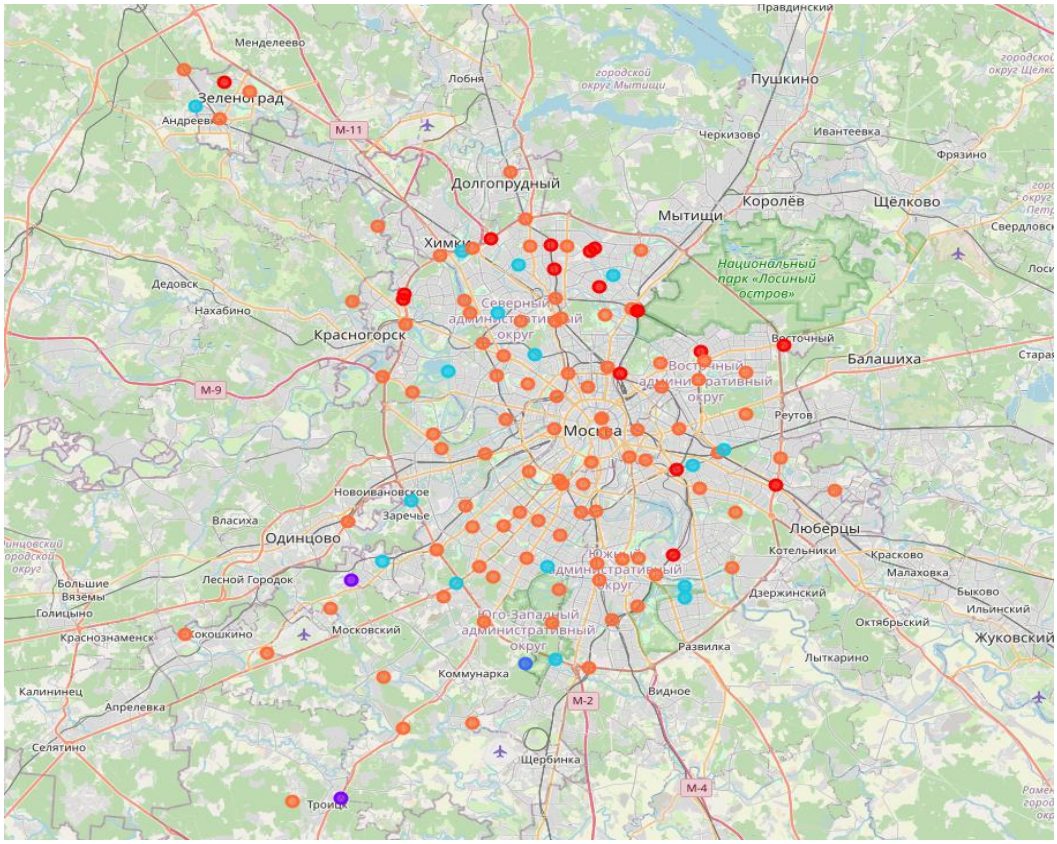
For New York data I have choose existing data which was used in the lab. They are represented the same way as Moscow district data.

To compare the districts of the two cities, I used Foursquare location data about cities venues.

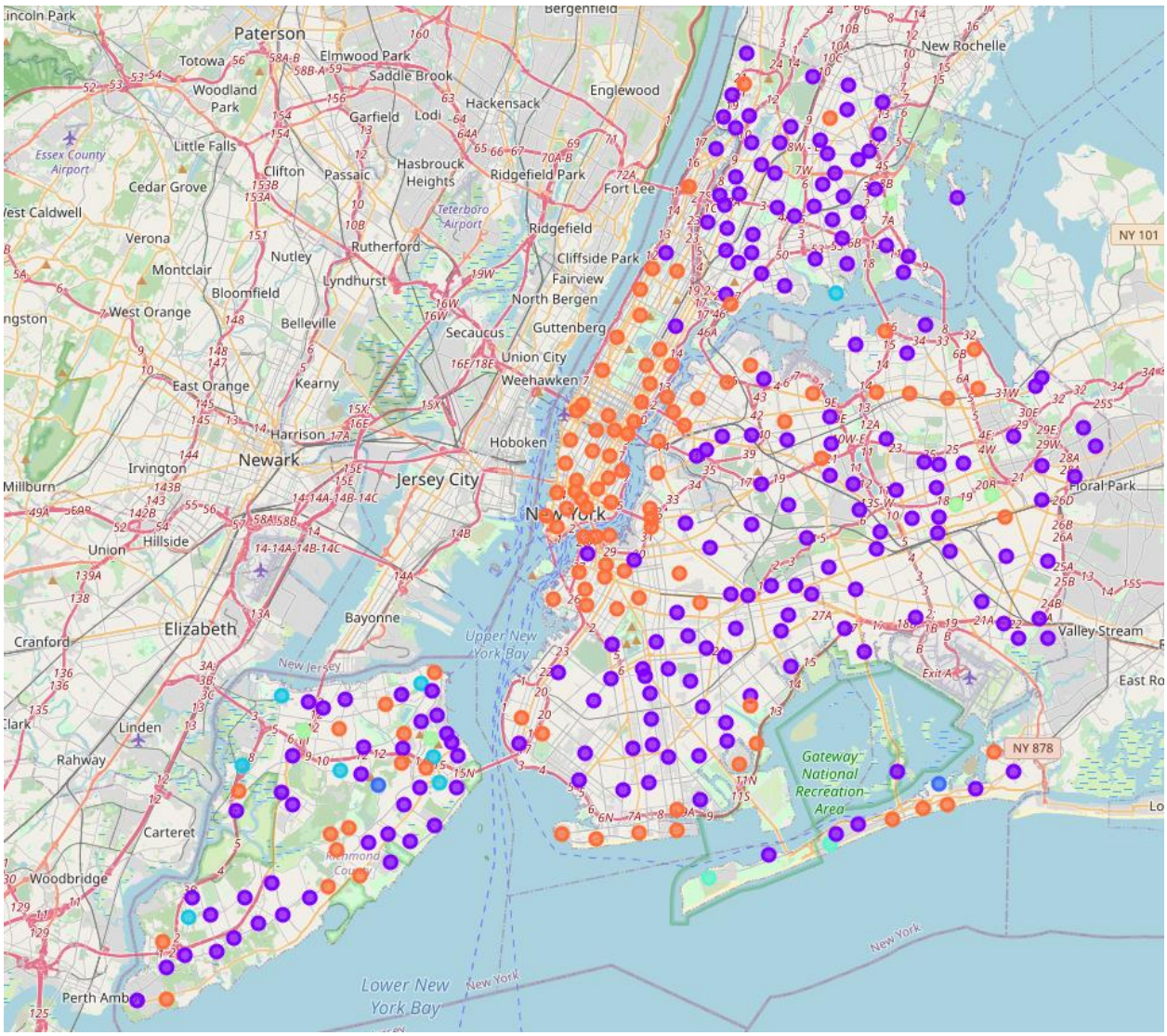
Methodology

After preparing data I choose *k*-means clustering to distribute the boroughs into groups. I was trying to set different count of clusters and I finally choose 8 groups. After clustering, I displayed the results on a map to visually assess the similarity of boroughs of two cities.

Results



Moscow boroughs



New York boroughs

As you can see from the maps, if you live in the center of Moscow, then it will not be difficult for you to find a similar place of residence in the center of New York, but if you are from Voronovskoye, you should stay in Moscow, because there are no similar areas in New York.

Discussion

The problem could have been defined differently, but I was limited by the need to use the data of Foursquare.

Also I could use different algorithms of clusterization and compare results but it's another story.

Conclusion

As a result, we got a rather flexible solution that will allow us to assess the similarity of districts of different cities if the location data exists and information about cities' venues in Foursquare exists.