

BUCHAREST BEST NEIGHBORHOOD

ABSTRACT

Choose the best neighborhood in Bucharest for a client to move in.

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» Problem Introduction

When choosing to move to a new city, we tend to have different needs. Some people prefer to have a park nearby, other people a gym, a supermarket and so on.

A client approached us to help him choose a place to live in Bucharest. He can't decide on the best neighborhood for him. Therefore, first step was asking him questions regarding what are his top needs from the place where he will live. As he doesn't cook, he decided that his first need is to have a restaurant nearby. Also, a supermarket would be perfect for him to be very close and, after so much food, he also wants to go to the gym, therefore, we found 3 main interests: restaurants, supermarkets and gyms.

» Data

In order to be able to find the neighborhoods in Bucharest containing the biggest number of restaurants, supermarkets and gyms, we need to use a table containing the latitude and longitude of each neighborhood.

In order to be able to do this, I created an excel table containing the list of neighborhoods in Bucharest, together with their geographical coordinates. I used Wikipedia and <https://www.latlong.net/>. I used this data and converted into a pandas dataframe to be able to handle it.

» Methodology

For the purpose of our project, we convert the excel table containing the coordinates of the neighborhoods into a pandas dataframe.

We use folium maps to see how the neighborhoods are spread on the map of Bucharest.

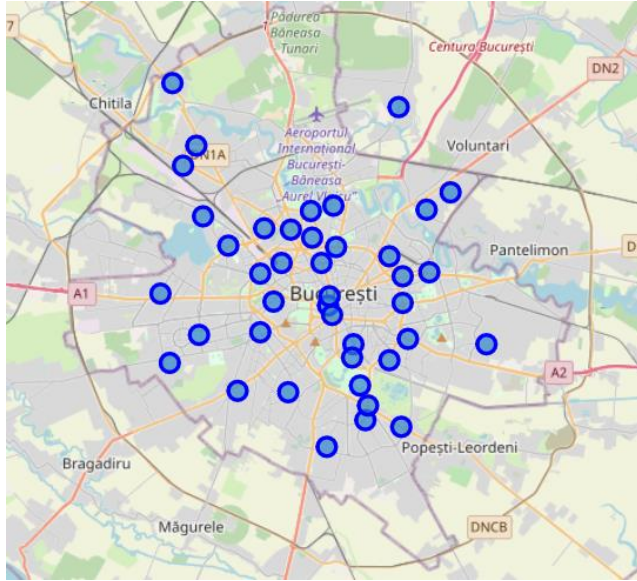


Figure1. Neighborhoods of Bucharest

Considering we need to see what venues are next to each neighborhood, we use Foursquare API to help us. Using it, we check how many venues we can find in each neighborhood and we see there are 164 unique categories of venues. Quite a lot, right?

Therefore, we need to analyse each neighborhood and see the top common venues.

The result shows that each neighborhood is quite complex and it's difficult to solve our problem. Therefore, we group the neighborhoods into 5 clusters and check the top 10 most common venues.

The result shows us that there are 2 main clusters of interest, which can be easily be seen by checking the map below.

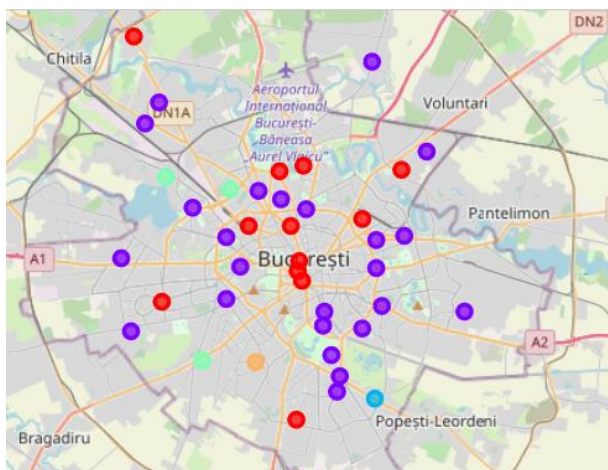


Figure2: Neighborhoods of Bucharest after clustering.

We decide to explore the 2 main clusters further and we make 2 new dataframes containing the top 4 common venues.

In each dataframe, we select the neighborhoods which have the biggest number of restaurants, supermarkets and gyms.

» Results

As we receive one result from the second cluster to contain all 3 points of interest, we choose this for our client, that is – Iancului Neighborhood.

» Discussion

Considering the returned neighborhoods from the first cluster include Spa's, Pools and Parks, despite not having a gym, and one neighborhood having also another type of market nearby, the returned result from cluster1 might also be a good option (Drumul Taberei).

» Conclusion

There are more than 10 neighborhoods containing 30 different types of venues in proximity, therefore, there was a big range of selection. But, having used the client criteria, we were able to find only one appropriate neighborhood (Iancului) + one more option to consider (Drumul Taberei).