

Choosing a place to live

By Ioana Bucuri

What I want to accomplish?

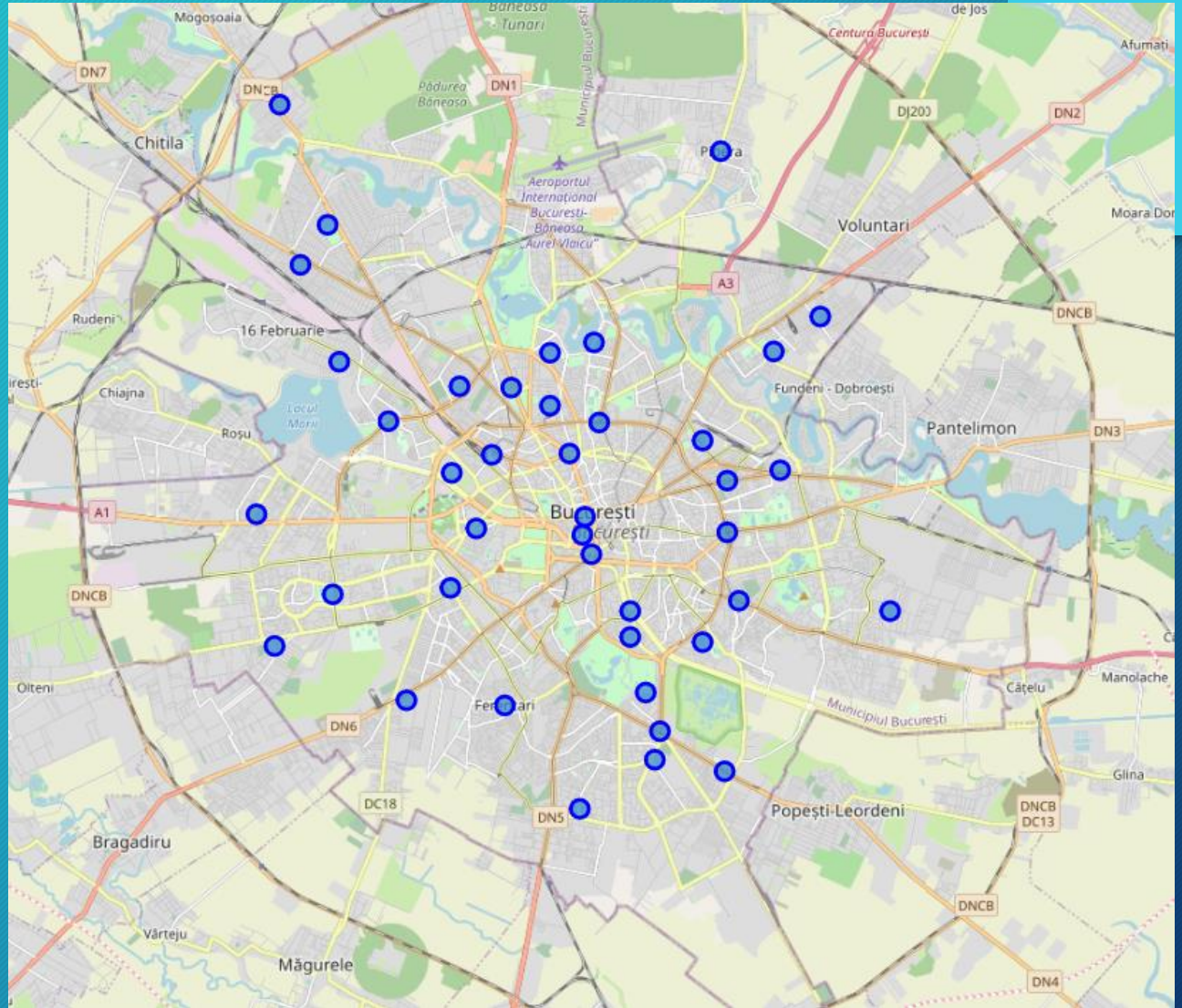
- I want to help somebody who wants to move in Bucharest to decide which neighborhood to choose.
- He will be more than happy to have many restaurants and supermarkets close by.
- He is also keen to going to the gym, therefore, some gyms will be good to have as well.

What I need for this?

- Considering I have to check the venues inside each neighborhood, I decide to use Foursquare API to see all the venues close to each neighborhood.
- In order to be able to do that, I created a table with the geographical coordinates of each neighborhood. Please the first rows below.

Neighborhood	Latitude	Longitude
Pantelimon	44.44376185	26.15247397
Pipera	44.5043368	26.1368057
Ferentari	44.3993083	26.0794186
Bucurestii Noi	44.4902616	26.03230109

- I find there are 43 neighborhoods in Bucharest. Let's see them on the map, using Folium.



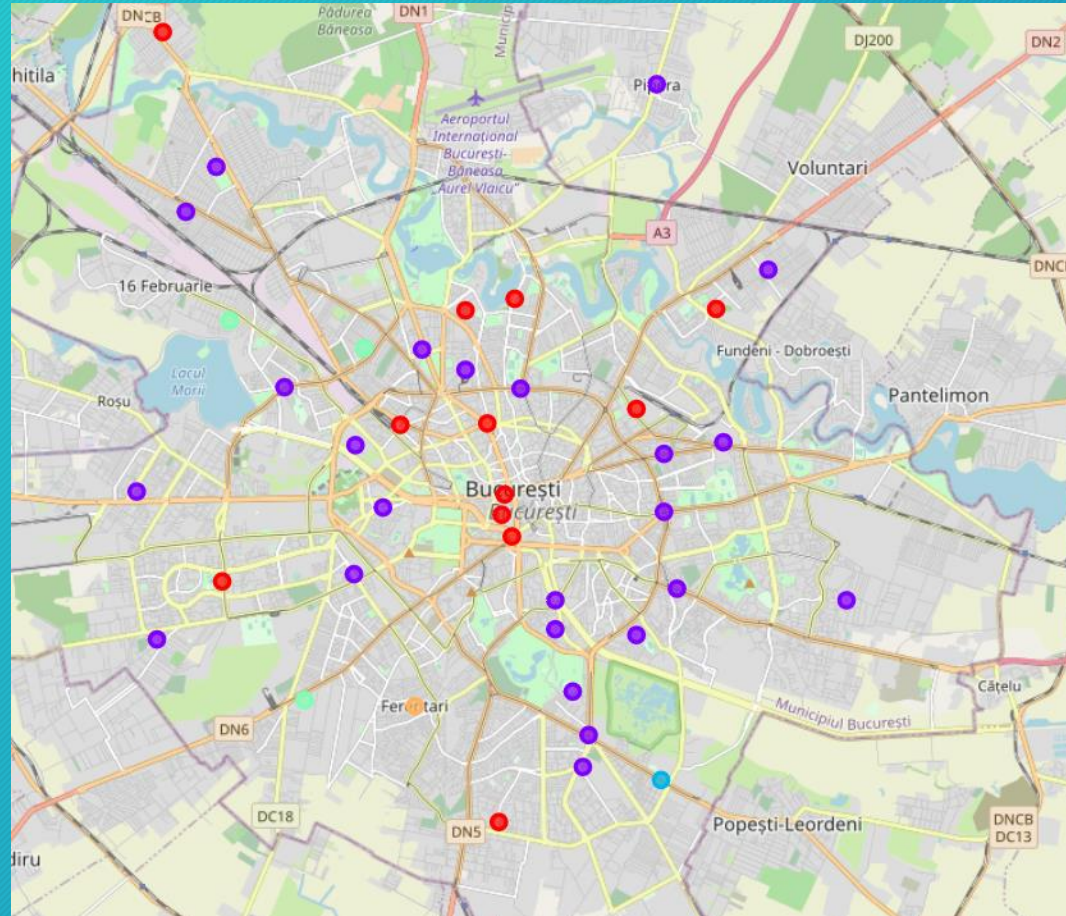
Using Foursquare
API, I find
hundreds of
venues in
Bucharest.

	name	categories	lat	lng
0	Garage Cafe	Coffee Shop	44.457758	26.080994
1	Pain Plaisir	Bakery	44.457005	26.080393
2	Downtown Fitness	Gym / Fitness Center	44.458576	26.077485
3	Casa Doina	Romanian Restaurant	44.458885	26.082823
4	Shaorma Orient	Middle Eastern Restaurant	44.458319	26.077610
5	Parcul Kiseleff	Park	44.457249	26.083603
6	Ristorante Il Calcio	Italian Restaurant	44.459858	26.077763
7	Piccolo Mondo	Middle Eastern Restaurant	44.459956	26.077662
8	Downtown Fitness	Gym	44.458596	26.077532
9	Supapa	Restaurant	44.455337	26.080657

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	13 septembrie	Bar	Supermarket	Salon / Barbershop	Concert Hall	Lounge	Romanian Restaurant	Pizza Place	Park	Gym / Fitness Center	Cosmetics Shop
1	Aviatorilor	Italian Restaurant	Restaurant	Romanian Restaurant	Middle Eastern Restaurant	Mediterranean Restaurant	Hotel	Café	Bakery	Supermarket	Gym / Fitness Center
2	Berceni	Gym	Park	Fountain	Grocery Store	Restaurant	Italian Restaurant	Bakery	Lebanese Restaurant	Supermarket	Eastern European Restaurant
3	Bucurestii Noi	Bakery	Pharmacy	Dessert Shop	Gym	Supermarket	Theater	Shop & Service	Electronics Store	Flea Market	Fast Food Restaurant
4	Centrul Vechi	Coffee Shop	Roof Deck	Historic Site	Wine Bar	Beer Bar	Hotel	Ice Cream Shop	Bookstore	Tattoo Parlor	Chocolate Shop
5	Chitila	Health & Beauty Service	Cosmetics Shop	Lounge	Supermarket	Casino	Women's Store	Eye Doctor	Food & Drink Shop	Flea Market	Fast Food Restaurant
6	Colentina	Spa	Rental Car Location	Fast Food Restaurant	Hotel	Supermarket	Park	Food & Drink Shop	Eastern European Restaurant	Event Space	Flea Market
7	Cotroceni	Café	Bistro	Italian Restaurant	Pool	Tennis Court	Park	Restaurant	Electronics Store	Coffee Shop	Market
8	Crangasi	Café	Supermarket	Electronics Store	Pizza Place	Tennis Court	Fried Chicken Joint	Light Rail Station	Falafel Restaurant	Shoe Store	Farmers Market
9	Dorobanti	Café	Romanian Restaurant	Sushi Restaurant	Bakery	Spanish Restaurant	Cheese Shop	Sandwich Place	Cocktail Bar	Cosmetics Shop	Dessert Shop

I analyse each neighborhood and we display the top 10 common venues inside each. The result is a table like the one above.

It's a tough decision, the neighborhoods are quite a catch in terms of distinct venues. Therefore, I cluster them into 5 clusters. The result shows only 2 clusters look promising, as can be seen on the map showing each cluster in another color:



	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue
Neighborhood				
Colentina	Spa	Rental Car Location	Fast Food Restaurant	Hotel
Drumul Taberei	Coffee Shop	Restaurant	Farmers Market	Park
Floreasca	Pool	Lake	Eastern European Restaurant	Skating Rink
Primaverii	Coffee Shop	Italian Restaurant	Mediterranean Restaurant	Bistro
Piata Universitatii	Hotel	Italian Restaurant	Coffee Shop	Theater

Analysing the first cluster, I find 5 neighborhoods containing restaurants as top venues as shown above, but none of them has a supermarket. However, there's one containing a farmers market, as shown below. Therefore, Drumul Taberei could be an option.

	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue
Neighborhood				
Drumul Taberei	Coffee Shop	Restaurant	Farmers Market	Park

	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue
Neighborhood				
Dristor	Supermarket	Restaurant	Pizza Place	Cupcake Shop
Militari	Supermarket	Middle Eastern Restaurant	Restaurant	Park
Tineretului	Café	Supermarket	Romanian Restaurant	Italian Restaurant
Iancului	Pharmacy	Gym	Eastern European Restaurant	Supermarket

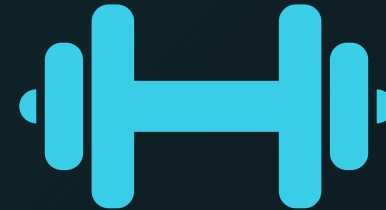
Inside the second cluster, there are 4 neighborhoods which have many supermarkets and restaurants, as shown above, and one which also has gym as the second most common venue.

	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue
Neighborhood				
Iancului	Pharmacy	Gym	Eastern European Restaurant	Supermarket

Conclusion



For somebody who wants to move in Bucharest considering areas with the biggest numbers of restaurants and supermarkets, there are various options like Colentina, Drumul Taberei, Dristor, Militari.



However, as our client wants to have a gym nearby, Iancului is the best option.