Rents and social places density in Berlin, Germany.

Introduction/Business Problem

Berlin is the capital and largest city of Germany by both area and population. More than 3.5 million people are spread across 12 boroughs. However, compared to the rest of Germany, the rents for flats are extremely high and the trend goes up. In 2011, the square meter (for a $30m^2$ flat) was € 8.36 which is very low compared to nowadays €15.31[1]. People who move to Berlin have to decide how much they are willing to pay as boroughs closer to the center of Berlin are usually more expensive. Furthermore, they might prefer boroughs where social places density is high or low.

We will tackle both problems, the rents and social places density for the city of Berlin, to create a map where rent index is placed on Berlin and each borough is clustered according to the venue density. Since square meter prices depend on flat sizes, we examine small ($30m^2$), medium ($60m^2$) and big ($100m^2$) flats. The map will be surely useful for people who think about moving to Berlin and/or for real estate agencies for finding good borough candidates for their customers.

Data

In order address the mentioned problems, I will use the datasets/ sources listed below.

A kml shape file[2] containing a number of administrative areas in Berlin is provided by the statistical office of Berlin and Brandenburg. However, instead of transforming the shape file into GeoJSON format and extracting boroughs and boundaries, I will use the github repository of m-hoerz[3] which has a GeoJSON file containing names and boundaries of Berlin's 12 boroughs. Thank you m-hoerz!

Once borough details are extracted, I will use Google Maps to obtain center coordinates (latitude / longitude) of each borough.

Then, to obtain the most common venues in each bough, I will Fozrsquare API.

[1] https://www.wohnungsboerse.net/mietspiegel-Berlin/2825

[2] `https://www.statistik-berlin-brandenburg.de/produkte/opendata/geometrienOD.asp?Kat=6301`

[3] `https://github.com/m-hoerz/berlin-shapes`

Finally, I will scrape a platform for renting and buying flats named wohnungsboerse.net[4] to obtain details on rents. The provided site lists current prices (March 2019) for flats as well as the historical data.

The data will allow for creating a map that:

- displays boroughs of Berlin in form of markers and clustered according to venue density
- visualizes differences in rents (choropleth map)

[4] `https://www.wohnungsboerse.net/mietspiegel-Berlin/2825`