Segmenting and Clustering Neighborhoods in Berlin

Is Berlin still a divided City?

Introduction

- Berlin, the capital of Germany, celebrates its 30th anniversary of reunification this year. After almost thirty years of division into a capitalistic western and a socialistic eastern part, the quarters and neighborhoods of Berlin had developed quite differently. In the years after the reunification, the convergence of the eastern and western parts of the city towards a more homogenous, united city, was one of the important political goals.

- Therefore, now is a good moment to analyze the similarities and differences of Berlin's boroughs and neighborhoods. There are many approaches to do so. While it is relatively easy to compare figures such as the average income per person or the unemployment rate per borough (and in these terms, the differences between the eastern and western parts of the city are still obvious), it is a more difficult task to compare the "look and feel" of the boroughs and neighborhoods today.

Data used for anaylsis

- GeoJSON Data of Berlin boroughs and neighborhoods
- GeoPY coordinate data
- Foursquare API Data of 10 most common venue-types per neighborhood
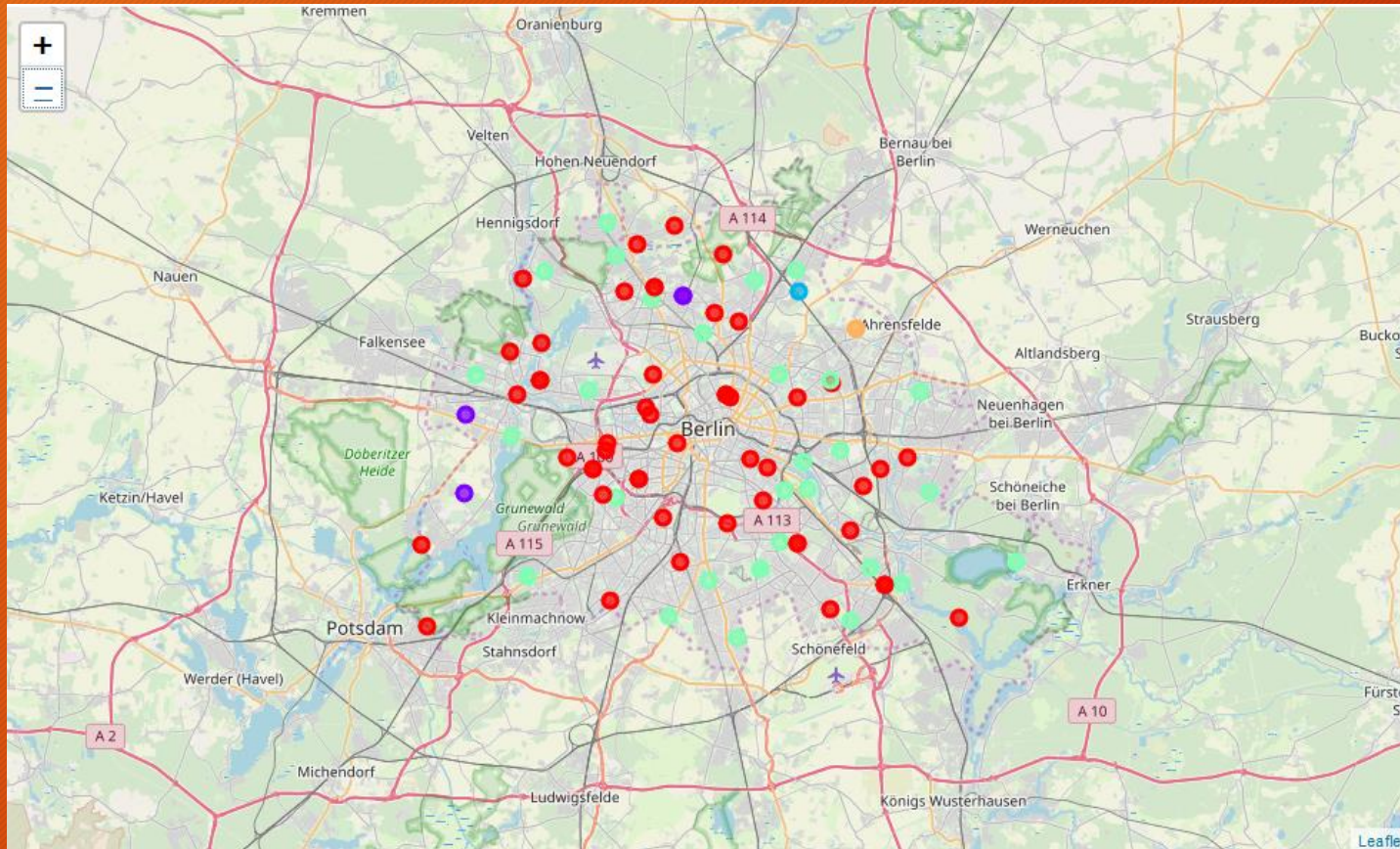
Methodology

- Extraction of Berlin's boroughs and neighborhoods and their coordinates from the GeoJSON file

- Creation of Folium maps

- Aquiring Data of 10 most common venue-types per neighborhood from the FourSquare API

- K-Means-Clustering of the neighborhoods

Results

- Folium map shows the five found clusters:

Results (continued)

- Two „big" clusters show hip, touristically attractive, high-life quarters in the center and west (red dots) on the one hand and more basic, domestic clusters (green dots) in some sub-urban areas and the east on the other hand

- The three other clusters are rather small and show specialties that do not play a role for the big picture

Conclusion

- Obvious division between inner city and suburban areas

- Differences between east and west are still present (more red dots in the west, more green dots in the east)

- **But:** no clear division between east and west anymore. The „attractive center" consists of former „east" and „west", the sub-urban areas exist on both sides as well.