Recommending a stay area in Berlin for a party tourist

Coursera Capstone Project

Berlin in a very attractive destination for party tourists

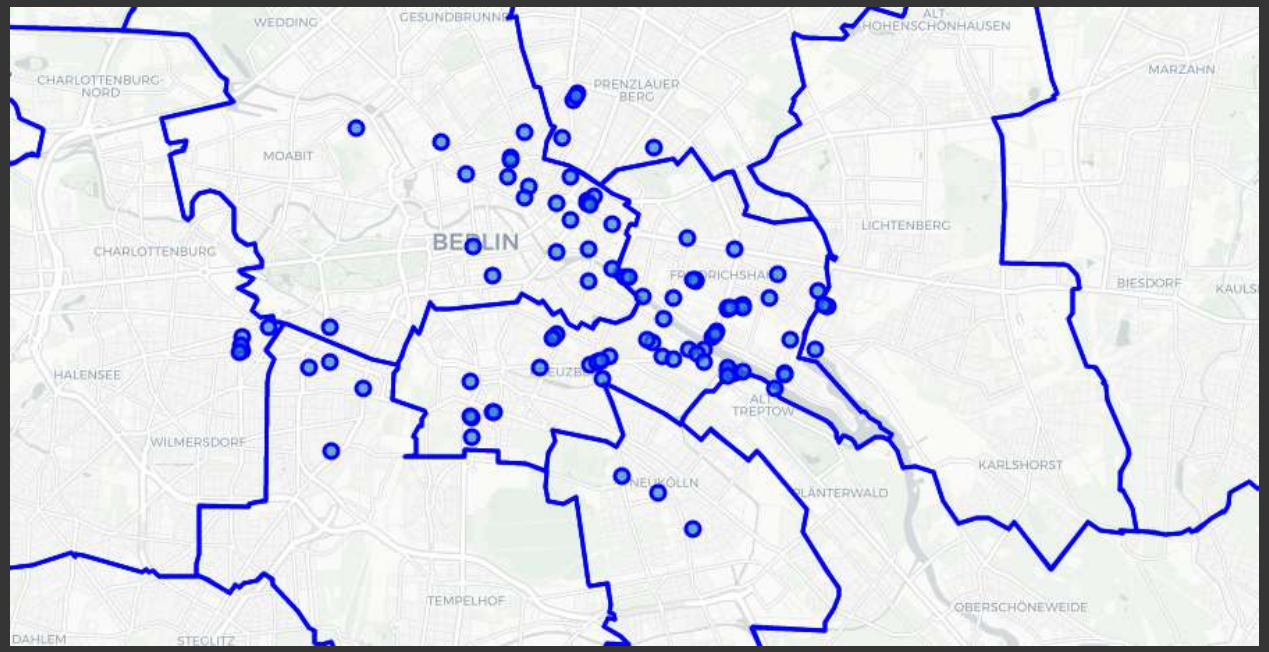
- The flux of party tourists to Berlin in ever growing.
- A useful tool for tourists would be one that helps them to know which areas of Berlin are the most suited for booking an accommodation, if someone is looking to stay in a borough with a high concentration of nightclubs.
- That would avoid them long travel times.

Which data would be need?

- Geospatial data of Berlin‘s center → geopy library
- Geospatial data of Berlin‘s borough → geojson file on GitHub: https://raw.githubusercontent.com/m-hoerz/berlin-shapes/master/berliner-bezirke.geojson

- Venues data set → Foursquare API

Let's plot the resulting data



- **Just 100 venues are retrievable through the Foursquare API.**

Let's locate the resulting data

borough	name	categories	lat	lng
Charlottenburg-Wilmersdorf	4	4	4	4
Friedrichshain-Kreuzberg	54	54	54	54
Lichtenberg	3	3	3	3
Mitte	23	23	23	23
Neukölln	4	4	4	4
Pankow	5	5	5	5
Tempelhof-Schöneberg	4	4	4	4
Treptow-Köpenick	3	3	3	3

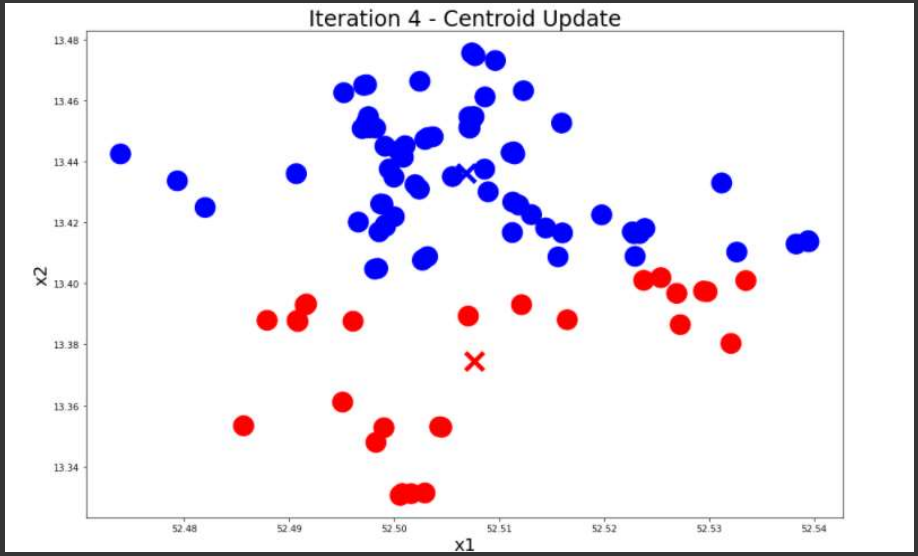
- Using shapely.polygon we assigned boroughs to the venues

- From 100 venues:
  - 54 were located in Friedrichshain-Kreuzberg
  - 23 were located in Mitte

Let's analyze the results

- The center of the club cluster still could be anywhere, despite Friedrichshain-Kreuzberg having the highest numbers of clubs.
- We performed a k-means cluster analysis to detect cluster centroids and assign boroughs to them.

Let's analyze the results



- It turs out one centrois was located in Friedrichshain-Kreuzberg and the other one was located in Mitte.

We conclude...

- Both Friedrichshain-Kreuzberg and Mitte are the most suitable boroughs in Berlin to book an accommodation in if you are a Party tourist. Friedrichshain-Kreuzberg has a slight edge since it has twice as much clubs.

Thanks for your attention and have a blast in Berlin!