

# Capstone Project

## The Battle of Neighborhoods

### Description of the data

- To collect the data (postal codes and location data (longitude and Latitude) I use a free dataset downloaded from <https://www.aggdata.com/>

Here I consider each city part with a postal code as a specific neighborhood

```
#obtain the geodata and postal codes
#reading geodata of germany
german_geo = pd.read_csv("de_postal_codes.csv",encoding='cp1252')
```

```
german_geo.head()
```

	Postal Code	Place Name	State	State Abbreviation	City	Latitude	Longitude	Unnamed: 7
0	1945.0	Kroppen	Brandenburg	BB	Oberspreewald-Lausitz	51.3833	13.8000	NaN
1	1968.0	Schipkau	Brandenburg	BB	Oberspreewald-Lausitz	51.5456	13.9121	NaN
2	1979.0	Lauchhammer	Brandenburg	BB	Oberspreewald-Lausitz	51.5000	13.7667	NaN
3	1983.0	Großräschen	Brandenburg	BB	Oberspreewald-Lausitz	51.5833	14.0000	NaN
4	1987.0	Schwarzheide	Brandenburg	BB	Oberspreewald-Lausitz	51.4653	13.8680	NaN

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- As it is required I added the venue of each Area by exploring the [foursquare.com](https://foursquare.com)

```
Bonn_venues.head(7)
```

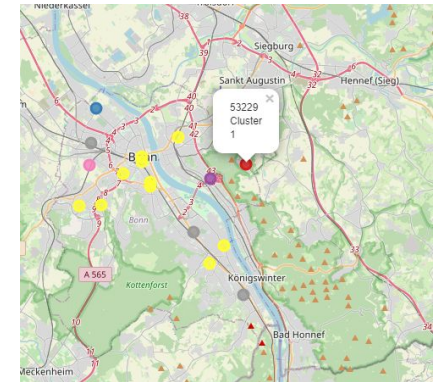
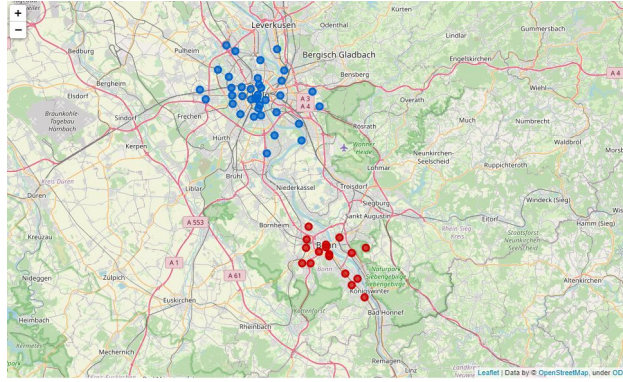
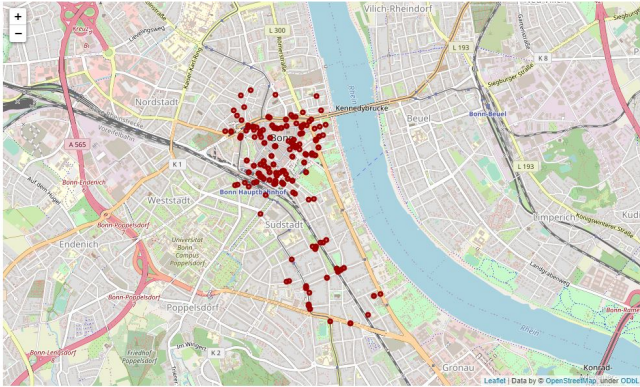
	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	53111	50.7362	7.1002	Marktplatz	50.735419	7.101961	Plaza
1	53111	50.7362	7.1002	Weinkommissar	50.736651	7.099702	Wine Bar
2	53111	50.7362	7.1002	WOKI Filmpalast	50.737734	7.101807	Movie Theater
3	53111	50.7362	7.1002	Olive	50.736228	7.103220	Greek Restaurant
4	53111	50.7362	7.1002	Fitness First	50.735146	7.102019	Gym / Fitness Center
5	53111	50.7362	7.1002	Kessel's Espresso Studio	50.736831	7.103196	Coffee Shop
6	53111	50.7362	7.1002	C'est la Vie	50.736694	7.100519	Café

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### Description of the data

- Plot the venues ,postal codes of two cities and clustered area in one city in the in maps:

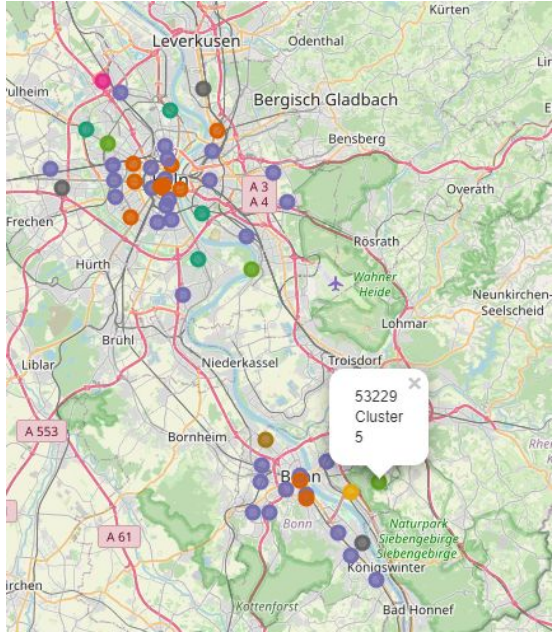


# Capstone Project

## The Battle of Neighborhoods

### Description of the data

- Finding the similar areas in two different cities





# Capstone Project

## The Battle of Neighborhoods

### Description of the data

- Clustering 10 cities of germany according to their venues

