Capstone Project

The Battle of Neighbourhoods

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Introduction

Introduction

Munich is the capital of bavaria. It is a global centre of:

- art
- science
- technology
- finance
- publishing
- culture
- innovation
- education
- business
- tourism

Introduction

Question by a friend:

Which is the right district of munich for him to life in?

Data

Data source

The first dataset is from https://www.dasoertliche.de.

Including:

- postal code
- town name
- district
- borough
- state

= 94 districts

Data cleaning

Including:

Stadt München

Excluding:

Flughafen-München

= 74 districts

Geospatial coordinates

With Nominates through the library geopandas:

Centered geographical coordinates of districts:

- latitude
- longitude

Foursquare API

Searching by coordinates within a radius of 500 meters.

Merged Data

The merged data has 239 columns.

Methodology

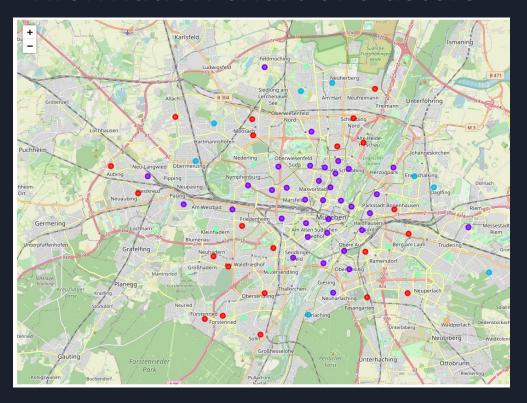
Methodology

After merging all data-frames:

- 1. OneHotEncoder
- 2. KMeans from sklearn.cluster
- 3. 5 clusters

Results

Information chart of clusters



Legend of clusters:



```
Asian German Restaurant

Beer Garden Miscellaneous Station

Talian Restaurant

Greek

Plazasupermarket

Plazasupermarket

Restaurant

Greek

Bus Stop Hotel Cocktail Bar Club Movie Theater

Bakery

Gastropub Gymma Shop Cream Shop

Bakery Country Store Bar Cream Shop

Bakery Country Store Burger Joint Store

Bakery Country Store Bar Cream Shop

Bar Cream Shop

Bakery Country Store Bar Cream Shop

Bakery Country Store Bar Cream Shop

Bar C
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Middle Nightclub Afghan Drugstore German Mexican Greek Wine Bakery Modern Greek Bakery Musican Beer Modern Greek Tram Shop Garden Shop Flurkish Bus Light Modern Antique Store Park Monument office Park Modern Antique Supermarket Mobile Phone Super
```



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Restaurant
Construction Noodle
Landscaping Shop
Lawyer Greek Retailer Responsible
Monument Miscellaneous
```

Discussion

Discussion

The results above give a nice overview about the different districts. Nevertheless the best helping visualization is the map of clusters in connection with the wordclouds.

Conclusion

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The friend of mine has now a nice collection of information. With the help of this collection he will be able to choose the right district to life in.