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.

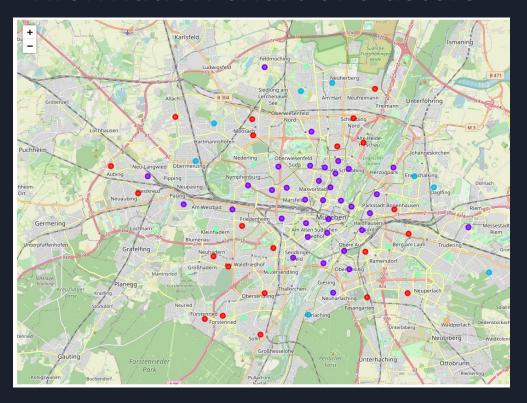# Merged Data

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:

0

1

2

3

4

Wordcloud of cluster 0

Wordcloud of cluster 1

Wordcloud of cluster 2

Wordcloud of cluster 3

Wordcloud of cluster 4

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.