## **Project Report**

## Introduction

Currently, in most rural areas of Southern Bavaria, Germany, young people are mostly not staying at the smaller cities, but want to move to the larger cities like Munich, Ingolstadt or Augsburg. This is also the case for young families. (I define young families as families, where recently a child was born) Unfortunately, the decision where to move to in larger cities is dependent of a number of personal preferences.

Especially for young families, particular preferences matter. Among them are the crime rate of a certrain district of a city, the number of schools in a certain district and especially the real estate prices. The latter point is important due to the fact that often, in young families, only one parent is working while the other is taking care of the child or children.

In the upcoming project, I will refer to the city of Munich and analyze its 25 main districts. In particular, I will search for clusters of districts based on the three aforementioned preferences: number of schools in a district, real estate prices of a district and the crime rate of a district.

With my analysis, I provide a basis for young families, which want to move to Munich, to decide to which district to move to based on several clusters.

## Data

To reach my goal, I will collect publicly available data from various sources.

- First of all, to visualize Munich, I will use the GeoJSON file provided by <a href="https://www.suche-postleitzahl.org/downloads/">https://www.suche-postleitzahl.org/downloads/</a>.
- Additionally, I will collect data about the crime rates in Munich. Those are available for the year 2017 at the website of the city council <a href="https://www.muenchen.de">www.muenchen.de</a>.
- Regarding the house prices, I refer to <a href="https://suedbayerische-immobilien.de/Immobilienpreise-Muenchen">https://suedbayerische-immobilien.de/Immobilienpreise-Muenchen</a>, which list the price per square meter in Euro.
- Finally, to collect data about the schools in a district, I use the foursquare API. Foursquare provides the names of, e.g., elementary schools ("Grundschulen").