

Describe the data that you will be using to solve the problem or execute your idea. Remember that you will need to use the Foursquare location data to solve the problem or execute your idea. You can absolutely use other datasets in combination with the Foursquare location data. So make sure that you provide adequate explanation and discussion, with examples, of the data that you will be using, even if it is only Foursquare location data.

First of all I will receive some potential boroughs in the centre of Hamburg that my customer wants to be analyzed.

I want to use the postal codes of these boroughs in Hamburg (can be found here for instance - <https://ahoihamburg.net/postleitzahlen-plz-liste-hamburg/>) and use them for my further investigations and analysis in Foursquare and for statistical analysis.

From the statistical office (<https://www.statistik-nord.de/>) I will get for these postal codes all needed demographic statistics and all needed tables about tourists, economic data and so on.

With the already downloaded table `StadtteilprofileBerichtsjahr2017.xlsx` from this statistical office I can obtain for instance all data about the people that live in the chosen locations. I can retrieve all information about their age, employment status and income situation what will be very helpful in the location analysis.

Foursquare will in particular provide me with all necessary information about potential competitors (venue category restaurant and especially Italian restaurant) and interesting activities that are nearby. I will get the JSON-data and transform it into Pandas data frames for further use.

An API call for such an exploration would for instance look like

https://api.foursquare.com/v2/venues/explore?client_id=&client_secret=&ll=,&v=&radius=&limit=, in which the latitude and longitude values for the center of Hamburg are 53.551086 and 9.993682.

Via the API call <https://api.foursquare.com/v2/venues/> I can receive more detailed information about the venues around.

At the end I will have information for the selected locations of the customer about in particular

- Potential competitors in the vicinity with their corresponding ratings
- Demographic statistics about the people that live there with average age and income situation
- Tourist information about the quantity of people that are expected every year in the selected boroughs
- Attractive venues nearby