**BEST LOCATION FOR A FUTURE FLOWER SHOP IN ZURICH**

1. BACKGROUND AND PROBLEM

The problem I want to solve is to find the best possible location(s) to start a ‘mom & pop’ retail shop in the city of Zurich, Switzerland. More specifically, I am looking for the best location for a flower shop, as this will help a friend who is about to launch her flower business.

Location is a key success factor for both pillars of such a business, which are:

- Selling flowers to customers visiting the shop;

- Delivering flowers, ordered either by internet or over phone.

Finding the best location is thus very important for the future business owner. Also, it is important to be able to explain and demonstrate why a specific location is suitable, to convince potential investors and banks of the viability of the future business. So this data visualization exercise is interesting for the business owner, her investors / partners, as well as the bank(s) expected to extend a credit line to the future business.

More specifically, the ideal location should have the following characteristics:

1. In a densely populated district of the city (we assume here that purchasing power and propensity to buy flowers is similar in each district, so that only the population density matters).
2. Near high-traffic public transportation hubs. Zurich mostly relies on a tram system, so that means the shop should be located near the tram stops with the highest number of daily passengers.
3. In a quite central area of the city, so that most of the city is a quickly reachable for deliveries. A location at the periphery would severely restrict the delivery business’ potential.
4. At least 300 meters away from the next flower shop. Being closer from established competition would make it difficult to establish a new business. On the other hand, finding a ‘white space’ away from any competitor may help a lot.
5. Ideally - but only if all other criteria are met - the shop should be in a pedestrian area, as (i) passerby are more relaxed and more inclined to shop flowers in pedestrian areas and (ii) this brings nicer working conditions for the shop’s employees.

2. DATA AND HOW IT WILL BE USED TO SOLVE THE PROBLEM

To solve this problem, I will mostly use data from three sources:

- The folium library

- The Open Data catalogue of Zurich City (<https://data.stadt-zuerich.ch>, in German)

- Foursquare.com

This location problem should be easier to solve visually, rather than using formulas with quantitative outputs. In that context, the folium will help a lot, with the following features:

1. Background map of the city of Zurich
2. Various overlays, like the map of the districts, markers for the main tram stations, etc…

The Open Data catalogue of Zurich City will provide us with the following data:

1. Population of the city, with a split per city district;
2. Limits of the city districts (geoJSON file). This will allow us to display the districts on the map, and create a choropleth based on the population density;
3. Limits of the pedestrian areas;
4. Location and daily number traffic of the tram stations. We will focus on the 20 most busy stations and mark them on the map.

The Foursquare API will provide us with:

1. The list of existing flower shops in the city of Zurich;
2. Their location, so that we can display them on the map with a marker;
3. If needed, additional information on select competitors, like rating and tips…