

Coursera Capstone Project

“The Battle of the Neighborhoods”

Expanding into Europe – Zurich District Analysis

Problem statement

An Analytics Consulting firm, based in New York, is looking to expand into Europe by opening a small office in Zurich, Switzerland. The City of Zürich is divided into 12 districts and 34 quarters.

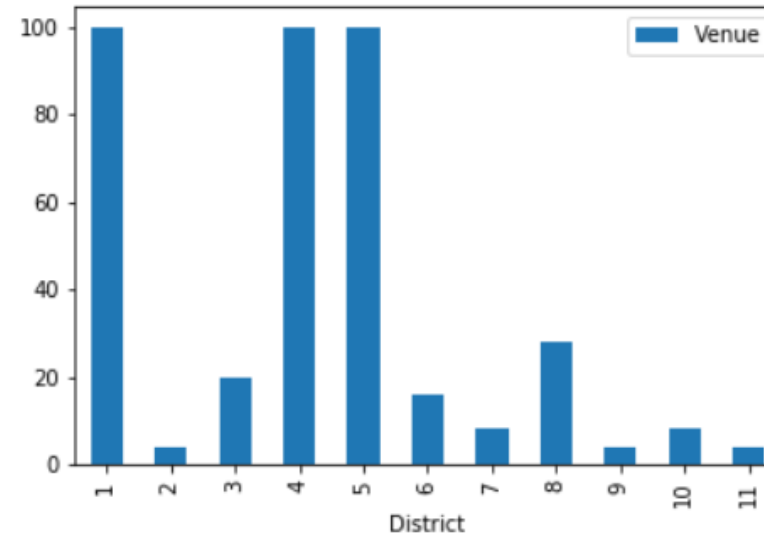
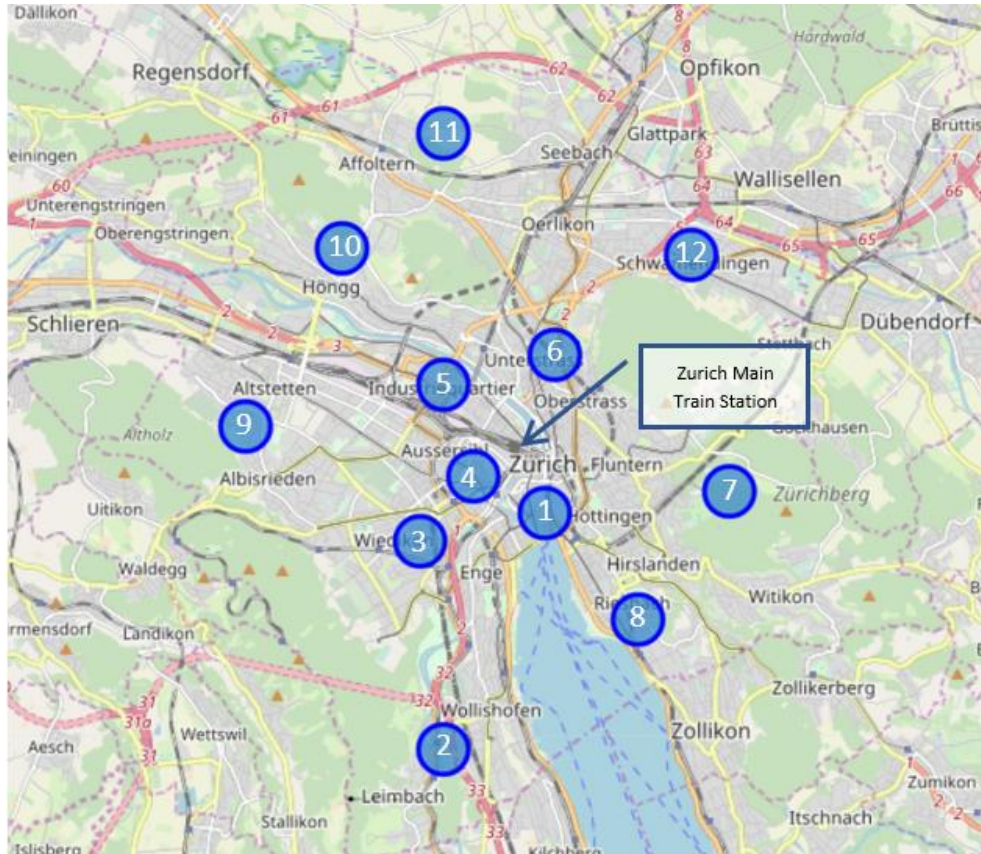
Aim:

This project aims to use Foursquare location data to explore and cluster Zurich's 12 districts to assist the firm's partners in deciding which districts to shortlist based on surrounding venues and prospective rental costs.

Criteria:

- transport accessibility
- proximity to clients
- local hospitality and hotels
- shopping
- dining possibilities

Mapping of Zurich Districts



Focus on districts with concentrated commercial activity, by number of venues. Coincides with proximity to Zurich's main station

- District 1
- District 4
- District 5

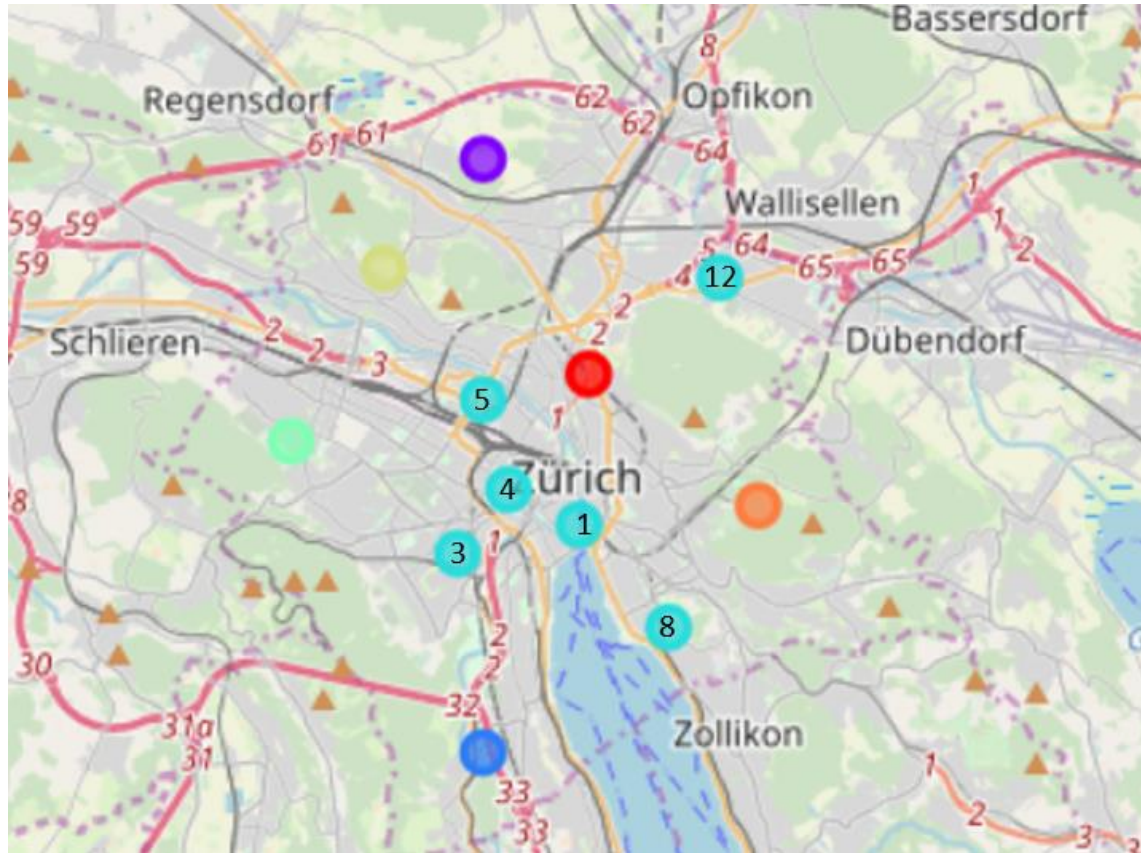
Exploratory Data Analysis

District	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
1	Swiss Restaurant	Café	Plaza	Bar	Boutique	French Restaurant	Cocktail Bar	Hotel	Italian Restaurant	Restaurant
2	Light Rail Station	Convenience Store	Bus Station	Yoga Studio	Gay Bar	Electronics Store	Falafel Restaurant	Farm	Fast Food Restaurant	Food
3	Restaurant	Italian Restaurant	Light Rail Station	Playground	Diner	Food	Bus Station	Burrito Place	Lounge	Beer Garden
4	Bar	Italian Restaurant	Restaurant	Swiss Restaurant	Café	Thai Restaurant	Coffee Shop	Chinese Restaurant	Nightclub	Pub
5	Nightclub	Bar	Restaurant	Café	Hotel	Bakery	Tram Station	Italian Restaurant	Pizza Place	Mexican Restaurant
6	Italian Restaurant	Bakery	Bistro	Indian Restaurant	Grocery Store	Middle Eastern Restaurant	Food & Drink Shop	Park	Falafel Restaurant	Coffee Shop
7	Bar	Swiss Restaurant	Music Venue	Pool	Tram Station	Golf Course	Skating Rink	Scenic Lookout	Food & Drink Shop	Food
8	Swiss Restaurant	Restaurant	Italian Restaurant	Museum	Tram Station	Bakery	Beach	Café	Mexican Restaurant	Coffee Shop
9	Middle Eastern Restaurant	Soccer Field	Moving Target	Bus Station	Yoga Studio	Furniture / Home Store	Electronics Store	Falafel Restaurant	Farm	Fast Food Restaurant
10	Bus Station	Grocery Store	Wine Bar	Steakhouse	Soccer Field	Other Great Outdoors	Food & Drink Shop	Food Truck	Food Court	Yoga Studio
11	Farm	Swiss Restaurant	Forest	Bus Station	Yoga Studio	Gay Bar	Eastern European Restaurant	Electronics Store	Falafel Restaurant	Fast Food Restaurant
12	Arts & Crafts Store	Bus Station	Restaurant	Thai Restaurant	Shopping Mall	Café	Supermarket	Swiss Restaurant	Plaza	Tram Station

The districts are listed with the top 10 venues by mean occurrence.

- Districts 1 and 5 are highlighted at this stage to earmark the only districts with hotels in the top 10 which satisfies the “local hospitality and hotels” criteria.
- Even prior to clustering, it is evident that as the radius from Zurich main train station increases we begin to see a different dynamic of venues.

Clustering



‘Cluster 3’ as labelled in the figure provides a clear distinction in terms of dining possibilities with plenty of diverse restaurants, shopping choices with plazas and shopping malls, as well as transport accessibility with proximity to Zurich main station as well as more flexible tram and bus stations.

- At this stage, it is appropriate to drop District 8 out of the final shortlist owing to distance from the centre and proximity to clients.
- *District 4* will also be dropped for strong similarity and immediacy to *District 3*.

Final Recommendations

District 1 - Priority choice

- (+) Close proximity to professional services clients*
- (+) Prestigious location, near to lake and station.*
- (+) Strong selection of hotels and restaurants*
- (-) Most expensive rent*

District 5

- (+) Trendy and rising district*
- (+) Eclectic mix of parks and restaurants*
- (-) May not suit culture of visiting clients*
- (-) Popular for nightclubs and bars*

District 3

- (+) Scenic and isolated from busy city centre*
- (-) Largely residential*
- (-) Lack of hotels*

District 12 – 2nd choice

- (+) Close to higher margin healthcare clients*
- (+) Lowest rent*
- (+) Strong selection of hotels and restaurants*
- (-) Will struggle to lure high talent*
- (-) Lack of hotels*

Conclusion

The project has provided the Analytics Consulting firm with a short-list of 4 clustered districts, which all fit the firm's office criteria but have distinct nuances based the criteria specified.

While *District 1* is most expensive investment, the requirement of a few employees and smaller office space in the first two years would provide the firm strong foundations with suppliers and potential clientele.

