



DOP RESTAURANT

**Spanish restaurant
in Zurich**

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1. Description of the problem and discussion of the background

Zurich, one of the most expensive cities of the world:

We all know that economic power of our world is turning back to the Asians. Through a genuinely nice manner, like one of the best pleasures of the life, eating, they are establishing their culture in ours, as we have been observing in the last few decades with the boom of the Asian cuisine.

The most notorious example could be the Sushi. Those “apparently” rice with raw fish rolls that all of us love. There are several franchises like “Sumo Sushi” “AFC Sushi” or, as we have here in Zurich, “Negishi”.

Going on with the cuisine, another well expanded canon is the Italian food. I really like it but, roughly speaking, pizza, risotto, and pasta...

So, let us introduce ourselves to one of the healthiest and most flavorful cuisine of the world. The Spanish food. Tortilla de patatas, jamón serrano, paella, fabada asturiana, flamenquín cordobés, are some of the fabulous dishes of the Mediterranean country.

We also are counting on with a grand amount and variety of DOP (Denominación de Origen Protegida – Protected Designation of Origin) and IGP (Indicación Geográfica Protegida – Protected Geographical Singh). DOP and IGP are marks that certify the quality and the origin of the products guaranteed by the European Community (EU). There are 218 DOP and 132 IGP between meat, fruit, cheese, olive oil, wine, among others. The restaurant will only offer this kind of products.

2. Description of the data and the use of it to solve the problem

Dishes made with the best products labeled with DOP and IGP, and customer with expensive tastes are our goal. Although a competitive quality-price ratio is a must, as we already know, high quality is synonym of higher price.

Where are the people who can pay for our “EU certified high-quality food” at one of the most expensive cities of the world? Zurich is a very cosmopolitan city, with thousands of nationalities and cultures living together. the people who are working at and around the financial district are used to pay for a higher quality.

2.1 Data source

FourSquare is a local search-and-discovery app that provides personalized recommendations of places to go near a user’s current location based on users’ previous browsing history.

With the help of FourSquare, we are going to explore the financial district and its surrounding areas to seek what kind of restaurants and how many are in the vicinity, just as analyze the price and the ratings the users give on the app. Because, as mentioned above, competitive quality-price ratio is a must, high quality is synonym of higher price.

2.2 Data cleaning

As we already know, FourSquare collect some data from the users. This can bring us to have lack of information. E.g., if any user gave any rate to a certain restaurant or hotel, we could not have that value and a calculation of ratio would be erroneous. The same issue can occur with the address or the category. If we search Spanish restaurants, we could also get tapas restaurant or bar-lounge.

3. Methodology and Data Analysis

3.1 Looking for selected cuisines

As said before, we are going to look for an optimal location to place our “DOP Restaurant”. First of all, we need find who are in the surrounding. We have decided to use Paradeplatz as pivot point.

Why Paradeplatz? We mentioned before that we are looking for a certain kind of customers. Those customers are more given to spend more money for higher quality. we could find them at the financial district of the city of Zurich. This square is one of the most expensive pieces of real state in Switzerland and has become synonymous with wealth and the Swiss Banks.

Trough the API of FourSquare we get some information of the venues with a radius of 1000m, thanks to the coordinates of Paradeplatz. With the call of the data, we get a lot of information and now is the moment of cleaning and filtering what we are looking for. We need the name, category, complete address, latitude, longitude, and venue id.

With the name and the address, we can fill the labels of the map once we create the map.

With the category we can classify the restaurants and get rid of bars, shops or any other. We have decided to avoid Indian cuisine, for example.

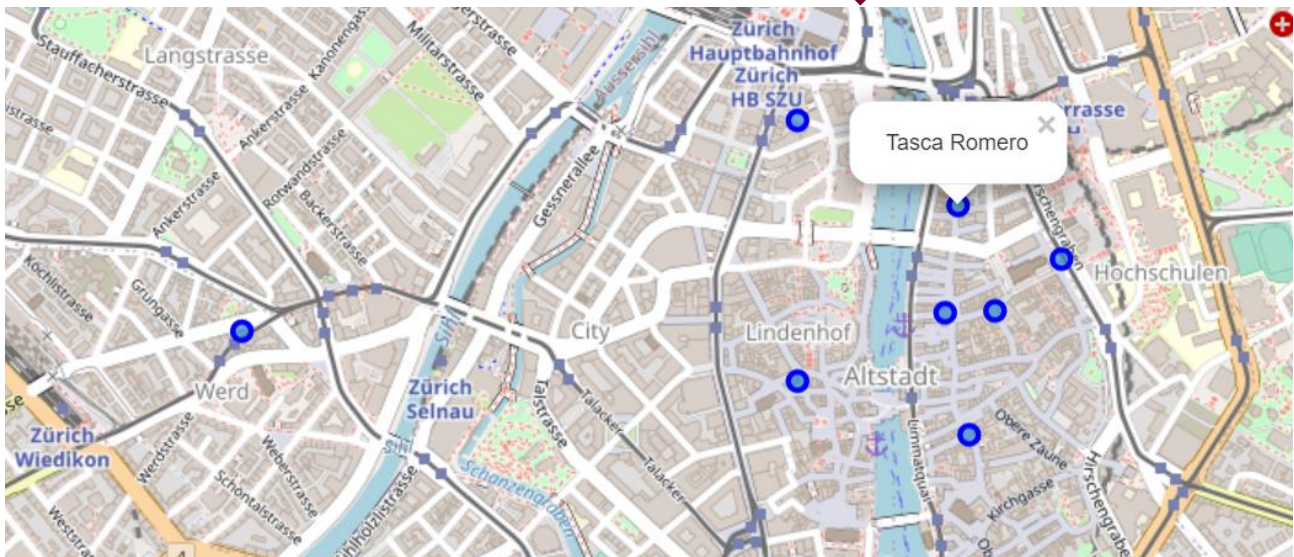
The coordinates allow us to locate on the map the markers of the venues.

The venue id is crucial to find the price tier and the rating. Those are specific information of the venue.

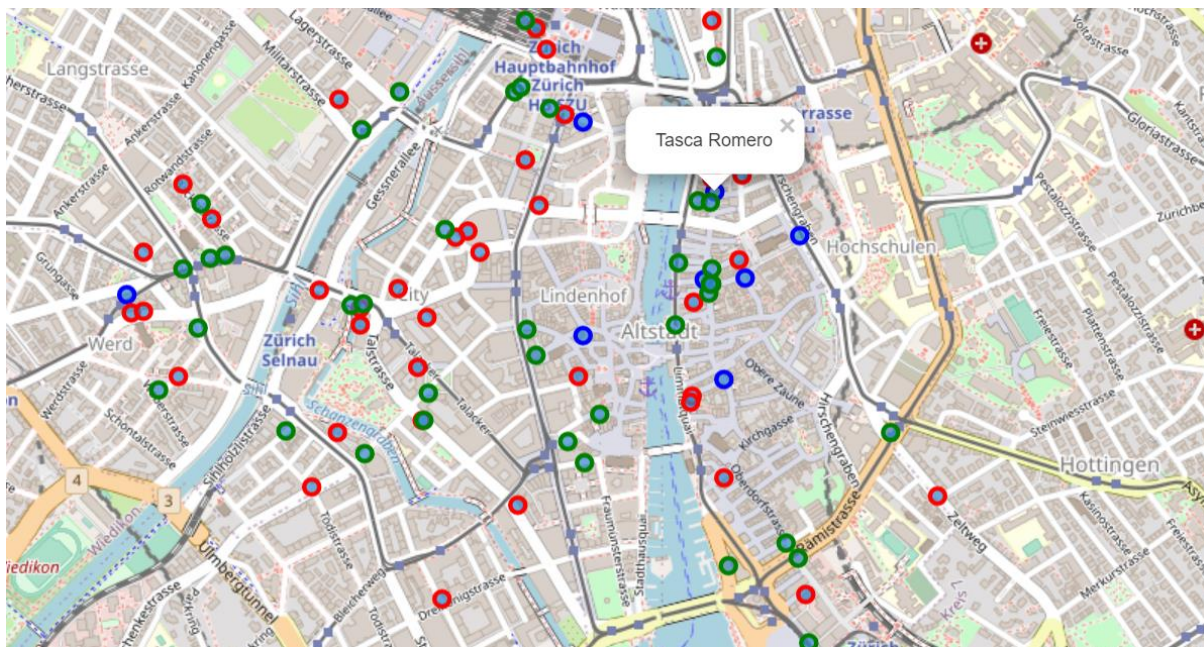
	Restaurant Name	Restaurant Category	Address	Postal Code	City	Latitude	Longitude	Restaurant id
0	Taverna Catalana	Spanish Restaurant	Glockengasse 8	8001	Zürich	47.372143	8.540149	4b05888af964a520a8cc22e3
1	Bodega Española	Spanish Restaurant	Münstergasse 15	8001	Zürich	47.371288	8.544152	4b05888af964a5208ecc22e3
2	Rechberg 1837	Spanish Restaurant	Chorgasse 20	8001	Zürich	47.374050	8.546306	4c76ad8fff1fb60c97a5f9a7
3	Tasca Romero	Spanish Restaurant	Niederdorfstr. 37	8001	Zürich	47.374905	8.543902	4bc05ca5f8219c740c77b110
4	Restaurant Emilio	Spanish Restaurant	Zweierstr. 9	8004	Zürich	47.372937	8.527220	4b058888f964a5200acc22e3
5	Restaurant Madrid	Spanish Restaurant	Froschaugasse 15	8001	Zürich	47.373241	8.544728	4b058888f964a52003cc22e3

Data frame cleaned and filtered.

Map with Spanish venues



We do the same process for the other two selected cuisines and plot all together on the map of Zurich.



We can see at a glance one of the reasons why we are here.

3.2 Quality-price ratio

Now is time for the price and the rating. We are going to calculate a quality-price ratio, so we can better measure what kind of Spanish restaurants are in the center of the city.

Rating	Price	Ratio
7.6	2	38
7.3	2	36
8.3	2	41
7.2	2	36
7.7	2	38
6.7	2	33
5.6	2	28

Here, are the rating, price, and ratio of some Spanish restaurants. Rating columns is a range between 0 and 10. Price is a range between 1 and 4 and Ratio between 0 and 100.

3.3 Clustering the restaurants with K-means

We have selected K-means as the technic to group by zones all the venues.

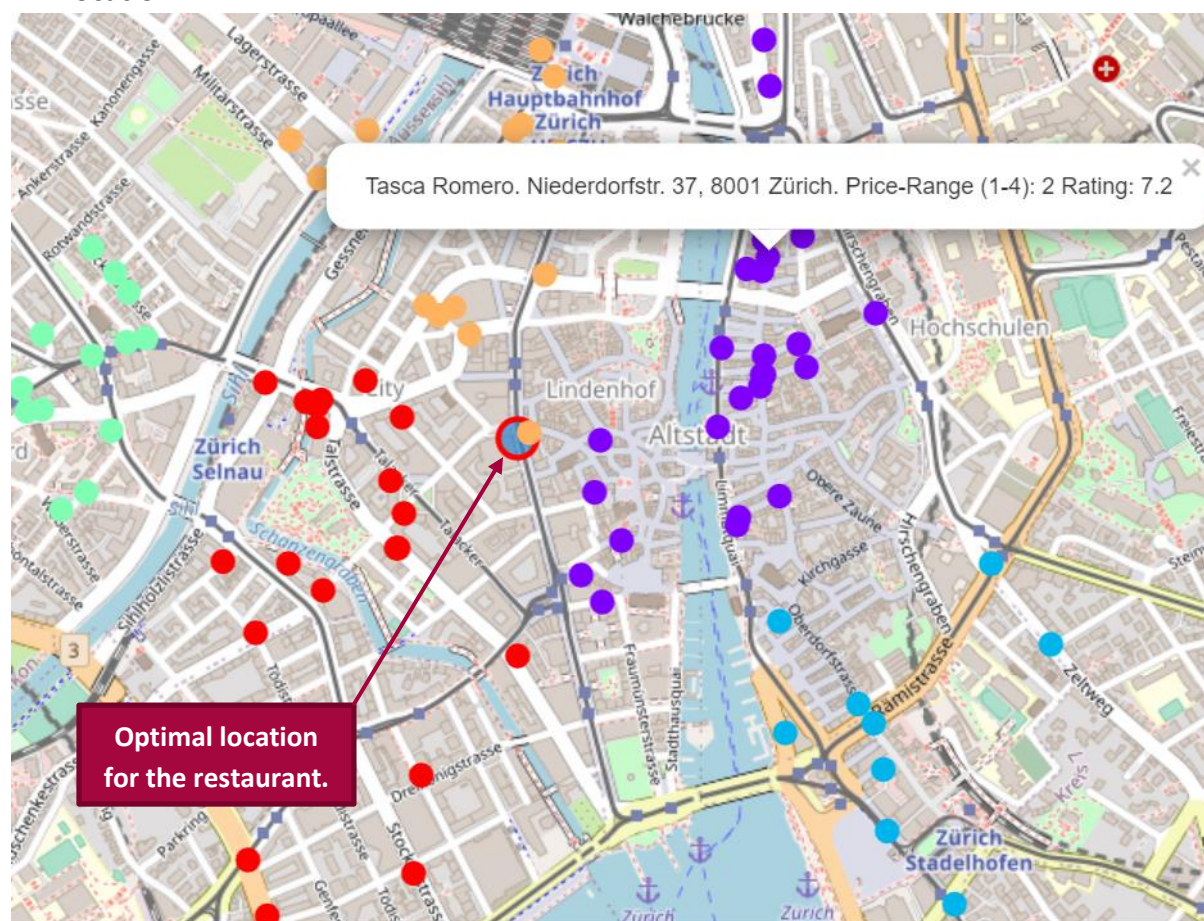
What is K-means clustering? A method of vector quantization, originally from signal processing, that aims to partition n observations into k clusters in which each observation belongs to the cluster with the nearest mean (cluster centers or cluster centroid), serving as prototype of the cluster.

To start working with it we must append the three cuisine data frames to each other. Like this we can have a total of all restaurants and go ahead with the calculations.

After that, we divide the venues in 5 clusters. With 1 cluster we are going to calculate the centroid based on all venues. Like this we will find, according just to the location, the best place to open our restaurant.

4. Results section

4.1 Location



4.2 Some numbers to keep in mind

Total restaurants of selected cuisines: 88

Percentage of Spanish restaurants: 7.95%

Percentage of Spanish restaurants per Asian restaurant: 17.07%

Percentage of Spanish restaurants per Italian restaurant: 17.50%

Average quality-price ratio of Spanish restaurants: 35.71%

Average quality-price ratio of Asian restaurants: 41.73%

Average quality-price ratio of Italian restaurants: 37.38%

5. Discussion section

We can easily see lack of Spanish restaurants. After all the filtering we only have 7 Spanish restaurants within a radius of 1km, but Asian and Italian are 41 and 40, respectively. That means, 0.17 Spanish restaurant each Asian or Italian restaurant. There is a huge gap to fill.

Spanish cuisine in Zurich is also worse according to our average quality-price ratio. Not that far from Italian restaurants, but it does from Asian cuisine.

Spain is the 4th country of the world with more Michelin Stars. 234 in 2021 in particular. That is one of the heaviest reasons why we cannot understand the apparently bad work is being doing in Zurich.

When I personally talk to other people, friends, or some acquaintance, all of them say the same thing: "I love Spanish food", "I love tortilla de patatas" or "paella is a delicious manner to cook rice". Based on this, most people like Spanish cuisine. Then why the restaurants we have in Zurich are so devalued? No idea. We have work to do.

We have a good new. It seems that Spanish competitors will be not that strong that they should. We have an easy way to put our hallmark as visible as possible and make us into the leader of Spanish restaurants in Zurich.

Concluding with the quality we are going to offer, is not the same if you eat a salat with olive oil, vinegar, and salt or you taste salad with an olive oil rewarded as best olive oil of the year. That only can happen with DOP and IGP products. That is going to be out distinguishing mark.

6. Conclusion

We have found a unique niche market. the number of Spanish restaurants is derisory compared to the other selected cuisines. The quality-price ratio is as well the lowest one. There is an enormous gap to fill and a lot of work to do. This improvement margin is an incredibly positive new.

The financial district, also known as the center of the city, is the place with more concurrence of the region. According to the centroid based on all selected venues, the location we should place the restaurant is privileged.

All this added to the high quality we can offer with our certified products; we consider that open a Spanish restaurant in the center of Zurich is an exceptionally good investment.