

Go out in Frankfurt/Main - Germany

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Open a new Restaurant

After an exhausting workday or simply trying to relax during a holiday visit, eventually one requires some refreshment. Some nice place to go out should always be welcome. Especially if hunger demands something nice to eat.

But if a new restaurant is to be opened, a few things need to be considered, as competition is to be expected.

- Is the selected part of town easily reached?
- How many competitors would there be?
- Any other attractions perhaps which might draw visitors of Frankfurt to that area?

Neighborhoods

So the first thing is to look into detailed location information of all districts of Frankfurt. Public transportation, attractions and dine-in restaurants are of primary concern.

In order to obtain these information, a solid database has to be established.

Obtaining required data

To be able to determine the boundaries of all the districts of Frankfurt/Main the data is downloaded from <http://www.offenedaten.frankfurt.de/dataset/frankfurter-stadtteilgrenzen-fur-gis-systeme> .

To allow for processing it is required to convert these data into a csv-format. To that end the data is imported into a tool, namely QGIS – <https://www.qgis.org> - , and exported as a csv-file.

The result is shown in Figure 1.

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The geograpical coordinate of Altstadt are 50.11104545, 8.68293572698541.
The geograpical coordinate of Innenstadt are 50.11287765, 8.67492196213115.
The geograpical coordinate of Bahnhofsviertel are 50.10774145, 8.66873601221096.
The geograpical coordinate of Westend-Süd are 50.1152448, 8.6622696.
The geograpical coordinate of Westend-Nord are 50.1263563, 8.6679209.
The geograpical coordinate of Nordend-West are 50.1249136, 8.67795.
The geograpical coordinate of Nordend-Ost are 50.1249197, 8.6923167.
The geograpical coordinate of Ostend are 50.1159353, 8.72054636793775.
The geograpical coordinate of Bornheim are 50.13305575, 8.71493241229322.
The geograpical coordinate of Gutleutviertel are 50.0978128, 8.65076020625548.
The geograpical coordinate of Gallus are 50.10365845, 8.63670648468984.
The geograpical coordinate of Bockenheim are 50.12236065, 8.63753199693013.
The geograpical coordinate of Sachsenhausen-N. are 50.1073316, 8.6876717.
The geograpical coordinate of Sachsenhausen-S. are 50.1073316, 8.6876717.
The geograpical coordinate of Flughafen are 50.04303025, 8.567283919206.
The geograpical coordinate of Oberrad are 50.0987908, 8.72740333345432.
The geograpical coordinate of Niederrad are 50.08647665, 8.63952576210809.
The geograpical coordinate of Schwanheim are 50.0829548, 8.57867983191661.
The geograpical coordinate of Griesheim are 50.1019699, 8.59995959799628.
The geograpical coordinate of Rödelheim are 50.12754395, 8.60627805861801.
The geograpical coordinate of Hausen are 50.13470325, 8.62750717118274.
The geograpical coordinate of Praunheim are 50.1471948, 8.61673665290379.
The geograpical coordinate of Heddernheim are 50.15859945, 8.6415285560116.
The geograpical coordinate of Niederursel are 50.16898715, 8.62234834505413.
The geograpical coordinate of Ginnheim are 50.14506905, 8.64915293192666.
The geograpical coordinate of Dornbusch are 50.14717045, 8.66972868973255.
The geograpical coordinate of Eschersheim are 50.1612049, 8.66261247862046.
The geograpical coordinate of Eckenheim are 50.15156345, 8.68237112573952.
The geograpical coordinate of Preungesheim are 50.1534246, 8.69908389304919.
The geograpical coordinate of Bonames are 50.18235405, 8.66409650339045.
The geograpical coordinate of Berkersheim are 50.1711657, 8.70119132512906.
The geograpical coordinate of Riederwald are 50.1263722, 8.73392440477122.
The geograpical coordinate of Seckbach are 50.1434285, 8.7258861.
The geograpical coordinate of Fechenheim are 50.12561975, 8.75764981003691.
The geograpical coordinate of Höchst are 50.0976871, 8.53844921885897.
The geograpical coordinate of Nied are 50.1025967, 8.57050189934911.
The geograpical coordinate of Sindlingen are 50.0775892, 8.51172312566463.
The geograpical coordinate of Zeilsheim are 50.09750985, 8.4960465922122.
The geograpical coordinate of Unterliederbach are 50.1096205, 8.52286237955801.
The geograpical coordinate of Sossenheim are 50.1210866, 8.57331436636195.
The geograpical coordinate of Nieder-Erlenbach are 50.2087835, 8.70679992202406.
The geograpical coordinate of Kalbach-Riedberg are 50.1766221, 8.6320784.
The geograpical coordinate of Harheim are 50.18558935, 8.69044546018167.
The geograpical coordinate of Nieder-Eschbach are 50.2013339, 8.66714625072703.
The geograpical coordinate of Bergen-Enkheim are 50.1576717, 8.76255510785864.
The geograpical coordinate of Frankfurter Berg are 50.17066305, 8.67565802894848.
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Figure 1

The first couple of rows of the corresponding Dataframe is depicted in Figure 2.

	Stadtteil	Latitude	Longitude
0	Altstadt	50.111045	8.682936
1	Innenstadt	50.112878	8.674922
2	Bahnhofsviertel	50.107741	8.668736
3	Westend-Süd	50.115245	8.662270
4	Westend-Nord	50.126356	8.667921
5	Nordend-West	50.124914	8.677950
6	Nordend-Ost	50.124920	8.692317
7	Ostend	50.115935	8.720546
8	Bornheim	50.133056	8.714932
9	Gutleutviertel	50.097813	8.650760
10	Gallus	50.103658	8.636706
11	Bockenheim	50.122361	8.637532
12	Sachsenhausen-N.	50.107332	8.687672

Figure 2

The center of all districts are indicated with markers, as shown in Figure 3.

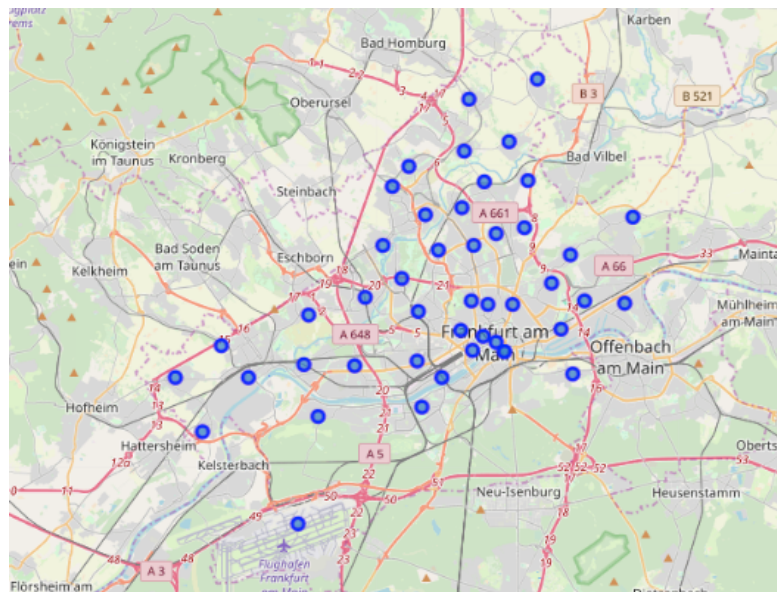


Figure 3

Retrieving location information from Foursquare allows to add markers for places of interest, shown around the main station of Frankfurt in Figure 4.

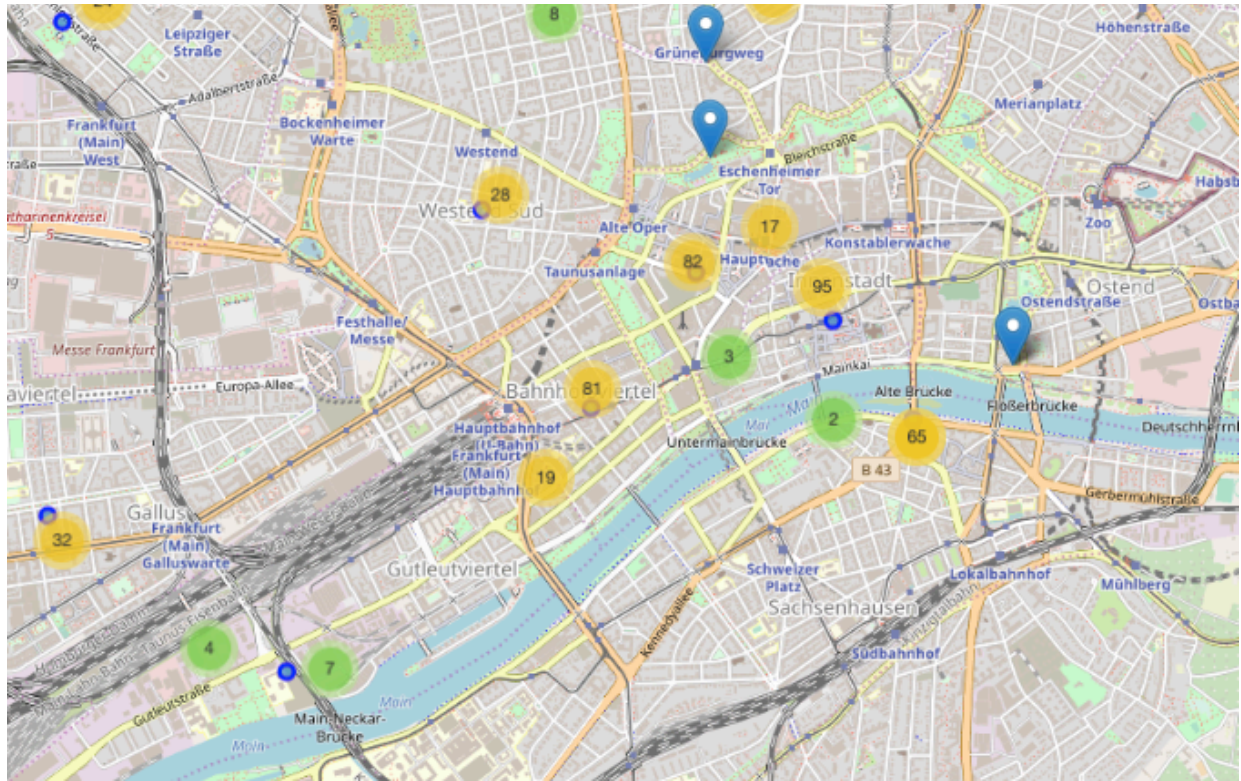


Figure 4

A few exemplary places of interest are listed as a dataframe. (see Figure 5)

	Neighbourhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Altstadt	50.111045	8.682936	Kleinmarkthalle	50.112778	8.682958	Market
1	Altstadt	50.111045	8.682936	Weinterasse Rollanderhof	50.112473	8.682164	Wine Bar
2	Altstadt	50.111045	8.682936	Römerberg	50.110489	8.682131	Plaza
3	Altstadt	50.111045	8.682936	SCHIRN Kunsthalle	50.110291	8.683542	Art Museum
4	Altstadt	50.111045	8.682936	Dom Aussichtsplattform	50.110609	8.684908	Scenic Lookout

Figure 5

Another step in identifying the type of all the venues, a sorted list of venue categories is obtained from the Foursquare data. (Figure 6)

['ATM', 'African Restaurant', 'Airport Lounge', 'Airport Service', 'American Restaurant', 'Apple Wine Pub', 'Argentinian Restaurant', 'Art Gallery', 'Art Museum', 'Asian Restaurant', 'Austrian Restaurant', 'BBQ Joint', 'Bakery', 'Bank', 'Bar', 'Beach Bar', 'Bed & Breakfast', 'Beer Bar', 'Beer Garden', 'Beer Store', 'Big Box Store', 'Bistro', 'Board Shop', 'Boarding House', 'Bookstore', 'Boutique', 'Bowling Alley', 'Breakfast Spot', 'Brewery', 'Building', 'Burger Joint', 'Bus Station', 'Bus Stop', 'Butcher', 'Cafeteria', 'Café', 'Cajun / Creole Restaurant', 'Chinese Restaurant', 'Chocolate Shop', 'Church', 'Cigkofte Place', 'Clothing Store', 'Cocktail Bar', 'Coffee Shop', 'College Residence Hall', 'Concert Hall', 'Construction & Landscaping', 'Convenience Store', 'Cosmetics Shop', 'Currywurst Joint', 'Department Store', 'Dessert Shop', 'Diner', 'Discount Store', 'Dive Bar', 'Doner Restaurant', 'Donut Shop', 'Drugstore', 'Eastern European Restaurant', 'Electronics Store', 'Ethiopian Restaurant', 'Event Service', 'Event Space', 'Falafel Restaurant', 'Farm', 'Farmers Market', 'Fishing Spot', 'Food & Drink Shop', 'Food Stand', 'Fountain', 'French Restaurant', 'Friterie', 'Furniture / Home Store', 'Garden', 'Gas Station', 'Gastropub', 'German Restaurant', 'Gift Shop', 'Gourmet Shop', 'Greek Restaurant', 'Grocery Store', 'Gym', 'Gym / Fitness Center', 'Gymnastics Gym', 'Harbor / Marina', 'Hawaiian Restaurant', 'Health Food Store', 'Historic Site', 'History Museum', 'Hookah Bar', 'Hostel', 'Hotel', 'Hotel Bar', 'IT Services', 'Ice Cream Shop', 'Indian Restaurant', 'Indie Movie Theater', 'Insurance Office', 'Intersection', 'Irish Pub', 'Italian Restaurant', 'Japanese Restaurant', 'Jazz Club', 'Jewelry Store', 'Karaoke Bar', 'Korean Restaurant', 'Lake', 'Light Rail Station', 'Liquor Store', 'Lounge', 'Malay Restaurant', 'Market', 'Mediterranean Restaurant', 'Men's Store', 'Metro Station', 'Mexican Restaurant', 'Middle Eastern Restaurant', 'Miscellaneous Shop', 'Modern European Restaurant', 'Moroccan Restaurant', 'Motorcycle Shop', 'Museum', 'Music Store', 'Music Venue', 'Nightclub', 'Noodle House', 'Opera House', 'Organic Grocery', 'Other Nightlife', 'Outdoor Sculpture', 'Paper / Office Supplies Store', 'Park', 'Pastry Shop', 'Pedestrian Plaza', 'Perfume Shop', 'Pharmacy', 'Photography Studio', 'Pizza Place', 'Platform', 'Playground', 'Plaza', 'Pool', 'Pool Hall', 'Post Office', 'Print Shop', 'Pub', 'Radio Station', 'Ramen Restaurant', 'Record Shop', 'Residential Building (Apartment / Condo)', 'Restaurant', 'River', 'Road', 'Sake Bar', 'Salad Place', 'Sandwich Place', 'Scenic Lookout', 'Seafood Restaurant', 'Shipping Store', 'Shopping Mall', 'Snack Place', 'Soccer Field', 'Spanish Restaurant', 'Speakeasy', 'Sporting Goods Shop', 'Sports Club', 'Steakhouse', 'Supermarket', 'Sushi Restaurant', 'Tapas Restaurant', 'Taverna', 'Tea Room', 'Thai Restaurant', 'Theater', 'Theme Restaurant', 'Toy / Game Store', 'Trail', 'Train Station', 'Tram Station', 'Transportation Service', 'Trattoria/Osteria', 'Turkish Restaurant', 'Vegetarian / Vegan Restaurant', 'Vietnamese Restaurant', 'Waterfront', 'Well', 'Whisky Bar', 'Wine Bar', 'Wine Shop']

Figure 6

Finding a suitable neighborhood

Although the inhabitants of Frankfurt also love to go out, it is expected that more often visitors and people, presumably bankers, working in Frankfurt but living outside, want to find a dine-in restaurant

- In an attractive environment
- With public transport access
- And during fairs also a Hotel, preferably somewhere nearby

Therefore a choropleth map is showing these attributes in Figure 7. Here all overlays are active.

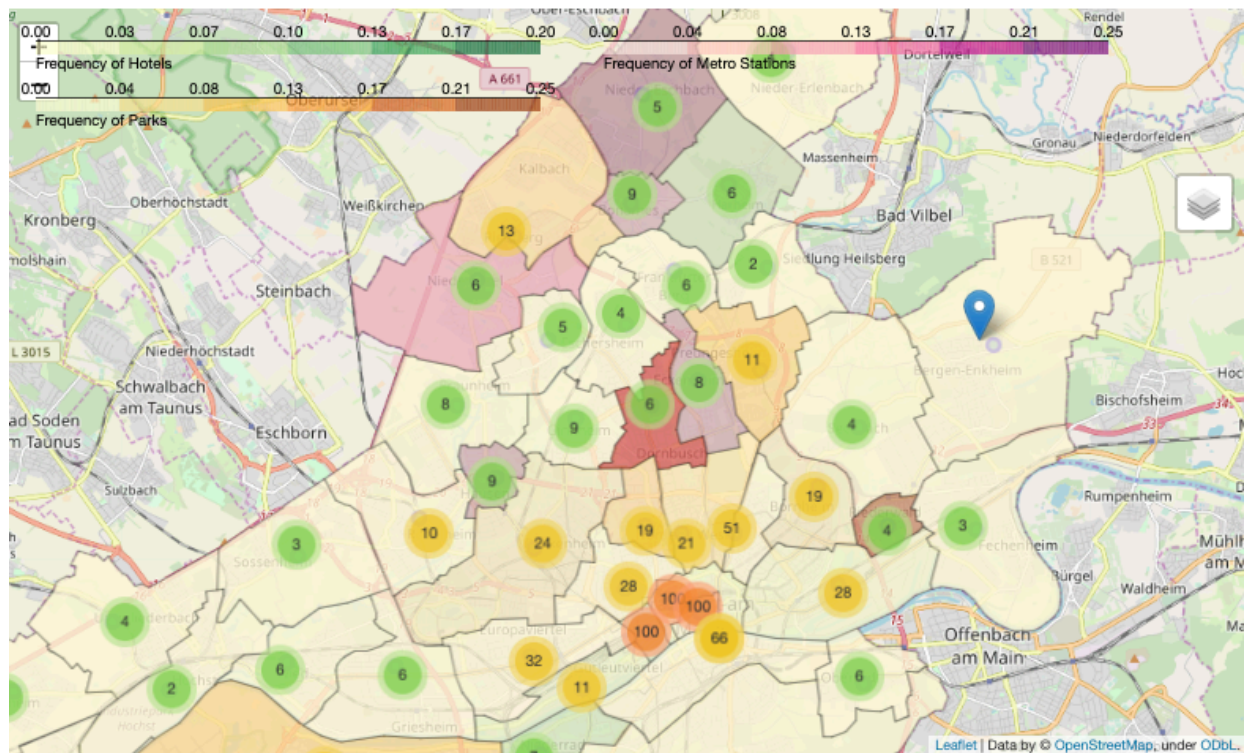


Figure 7

To distinguish the different layers figure 8 shows the districts with the most concentration of hotels and tram stations.

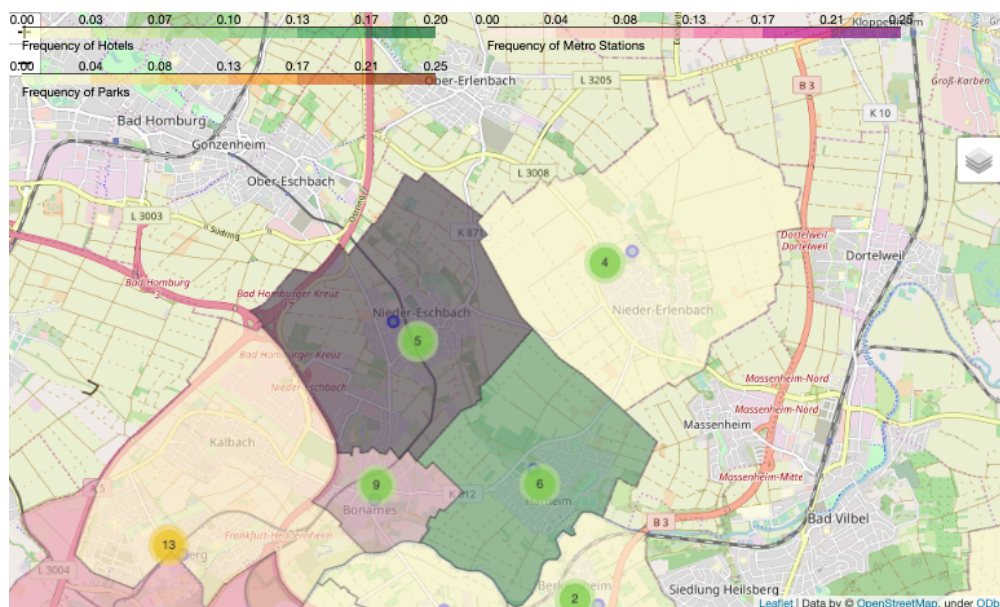


Figure 8

Analysis

To open a new restaurant in Frankfurt, it is probably difficult to try it just where everybody else has already settled in. Perhaps competition is a nice thing, but finding a place in the 'Altstadt' with its high rents requires probably luck and a cunning business plan.

On the other hand there are quite a lot of regular fairs and other public events which draw a lot of visitors to Frankfurt, allowing the hotels a decent share of the income.

According to the analysis of the data it might be some good idea to look for a place in 'Nieder-Eschbach'. It is located at the boundary of Frankfurt, has public transportations and hotels.

So after all the excitement, people might just want to relax in a more quiet environment before retreating to their hotels.

Unfortunately 'Nieder-Eschbach' does not provide any attraction or parks. That interferes with the initial assumptions of the necessity of such things. But perhaps when looking into evening hours for going out, attractions might have a lesser priority.

It might be necessary, based on the insights obtained from the data, to learn how the booking situation of the hotels located in that district actually is. Depending on that a final decision might be sound.

Conclusion

It is still difficult to offer an advice without going into further details. But at least the data provides clear insights of how the location of Hotels, public transportation and attractions are clearly distinguishable. And for a start 'Nieder-Eschbach' might be a good idea for a start, depending on the actual booking experiences of the hotels.