

Capstone Project IBM Course

Resturant Analysis in Hamburg

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Introduction

Introduction

Where is the neighborhood with more number of restaurants? Which variety of food is served there? Which is the most popular kind of food served in Hamburg?

- Hamburg is the second largest city in Germany after Berlin and the 7th largest city in the European Union
 - Population 1.84 Million
- Big Companies: Airbus, Grüner + Jahr, Beiersdorf, Blohm + Voss
- 7 Million Visitors (2017) and revenue 9 billion €
 - Hafencity, Speicherstadt, Kontorhausviertel, Elbphilharmonie

Questions to answer

- Where is the neighborhood with more number of restaurants/most populated?
- Which kind of restaurant is the most popular in Hamburg?
- Is the population of a neighborhood a factor in opening a restaurant?

Data

Data Used

- Districts and Population from Hamburg
- Latitude and Longitude Values from Hamburg neighborhoods
- Restaurants/Venues obstines from Forquare

Analysis

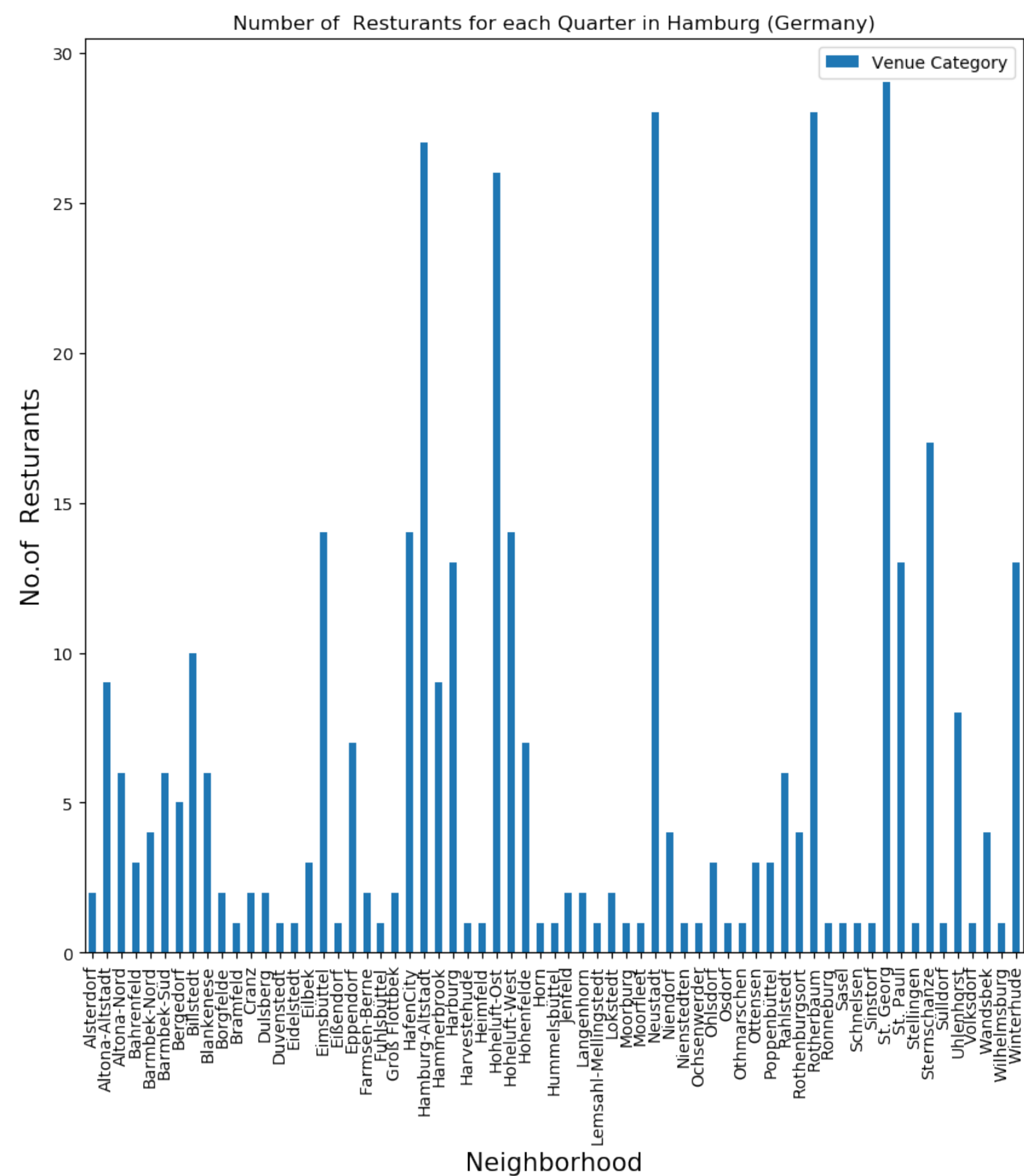
Most Populated Neighborhoods

Out [28] :

	Name	Status	PopulationEstimate2019-12-31
104	Rahlstedt	Quarter	92087
42	Billstedt	Quarter	70410
32	Eimsbüttel	Quarter	58005
74	Winterhude	Quarter	55492
60	Wilhelmsburg	Quarter	53519

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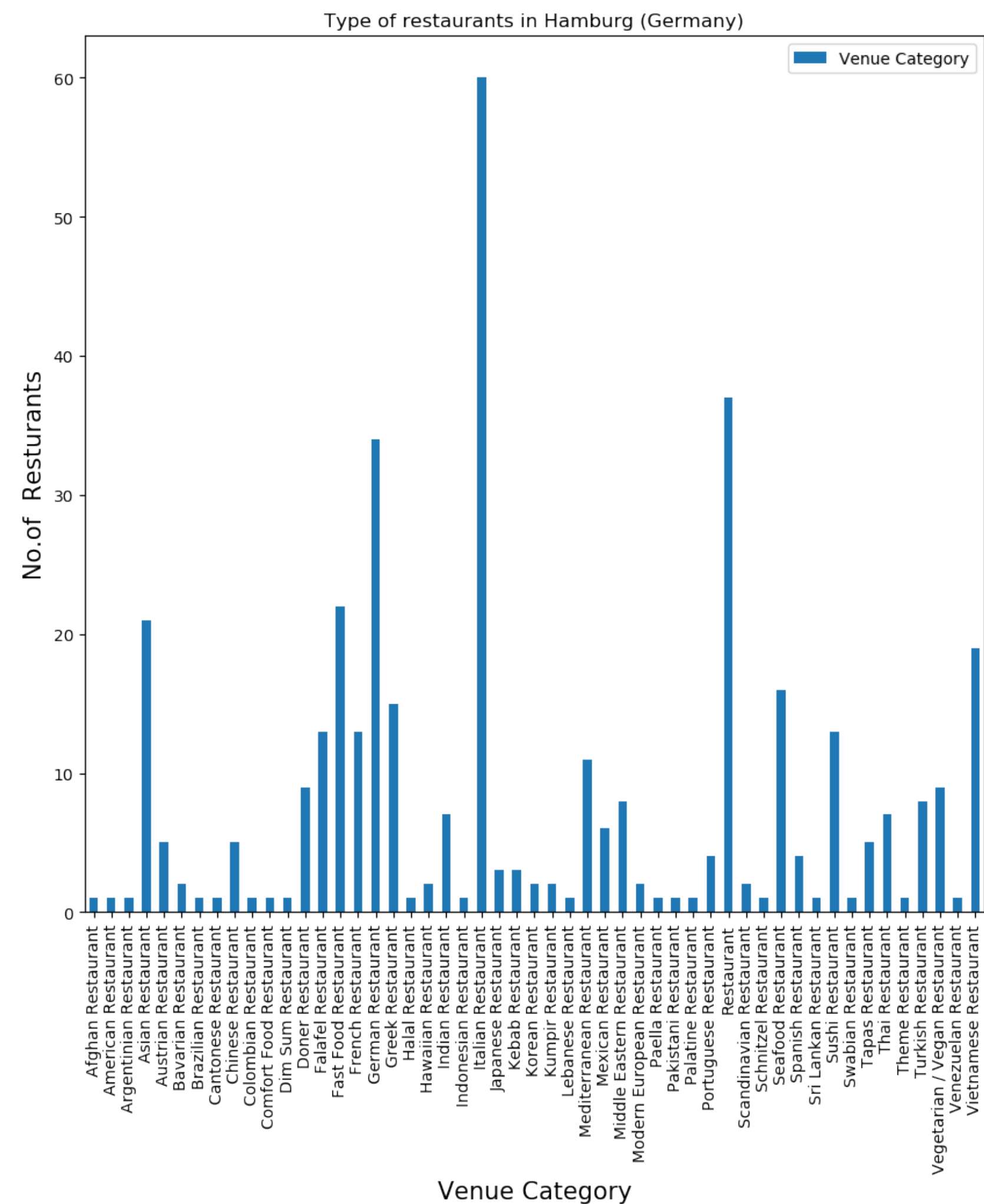
Restaurant Distribution by Neighborhood



Out[40]:

	Neighborhood	count
55	St. Georg	29
39	Neustadt	28
50	Rotherbaum	28
23	Hamburg-Altstadt	27
28	Hoheluft-Ost	26

Restaurant Distribution by Kind of Food



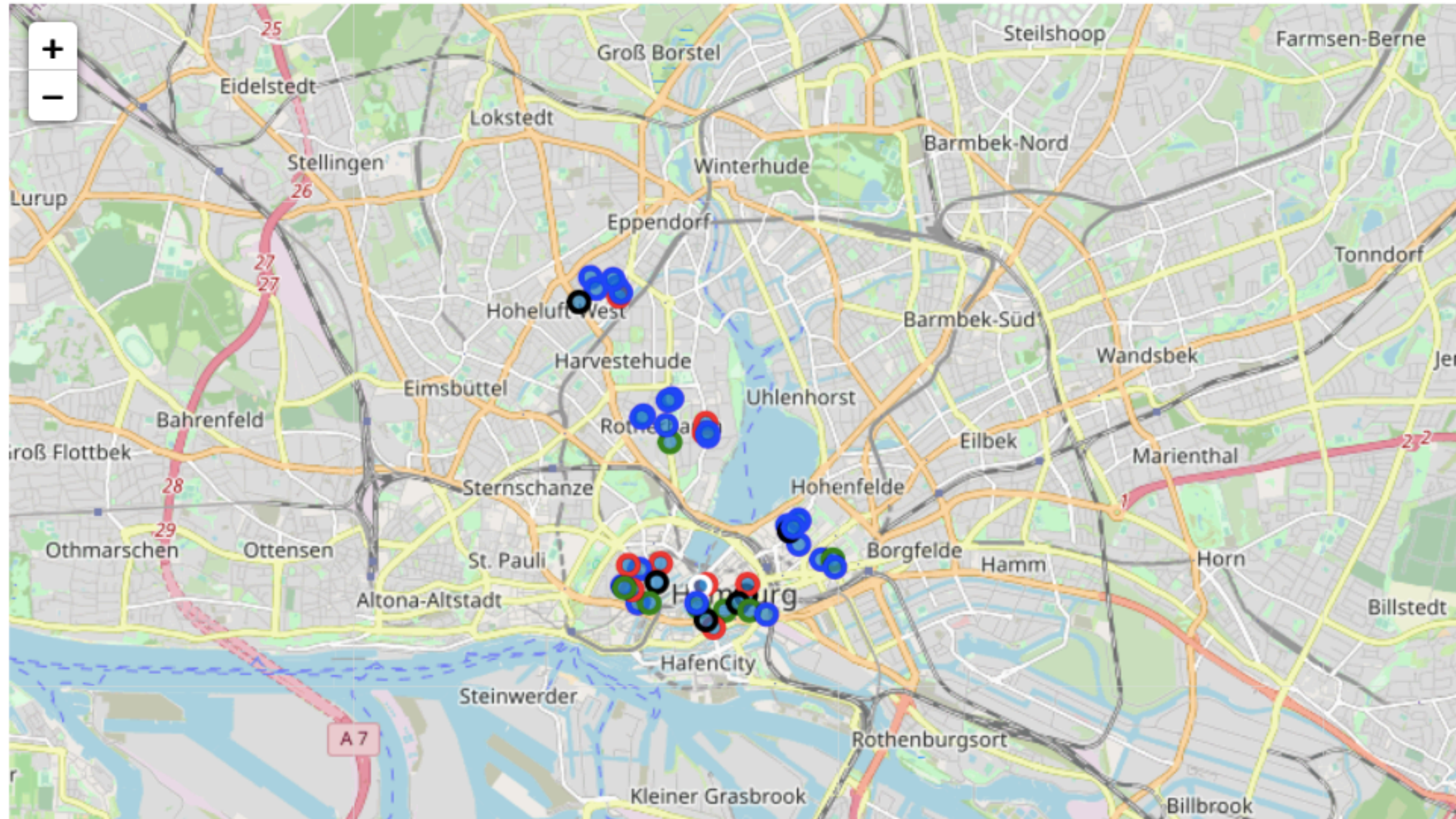
Out [38] :

	Venue Category	count
22	Italian Restaurant	60
36	Restaurant	37
16	German Restaurant	34
14	Fast Food Restaurant	22
3	Asian Restaurant	21

Map Distribution

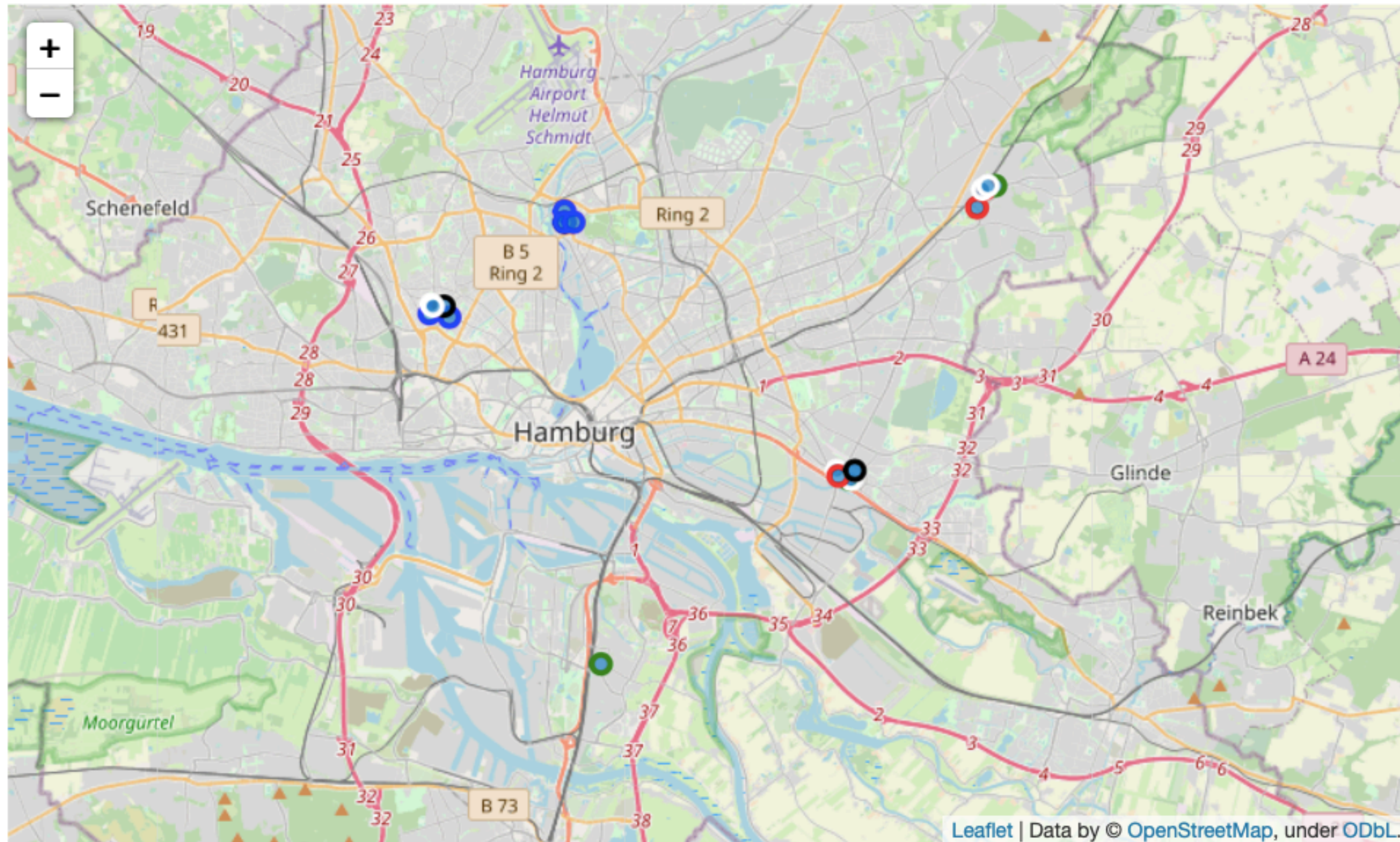
Neighborhoods with most number of restaurants

51:



Map Distribution

Neighborhoods most populated



Conclusions

Conclusion

- Where are the neighborhoods with more number of restaurants/or which is the most populated neighborhood?
 - The neighborhoods around the lake are the places with most number of restaurants. But the most populated neighborhoods are outside the city center.
- Which kind of restaurant is the most popular in Hamburg?
 - Italian, German, Fast food and Asian
- If a tourist goes to Hamburg, can see in advance in which neighborhood would have more choices of restaurants
- Is the population of a neighborhood a factor in opening a restaurant?
 - It does not seem so, most populated neighborhoods have a lack of (most popular) restaurants

Conclusion

- The business owners would have to decide if they want to open a restaurant in a neighborhood with a lot of inhabitants and lack of restaurants (and can also decide the type of food which seems to be more requested) or open a restaurant in a neighborhood where there are a lot of restaurants and the competence will be higher
- In real world, more factors should be considered such as cost of location of the business
- The analysis can not solve the problem of how many customers will visit the restaurant (either neighborhood with more restaurants, or neighborhood most populated) but could be the first approach to decide where to set the restaurant
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