Report for the Applied Data Science Capstone project

1. introduction

1.1. Problem description

I have been asked to advice on opening a restaurant in Amsterdam. I am asked where and what kind of restaurant should be opened.

The investor has connections with several owners of restaurants and is eager to invest in a likely location for expansion.

1.2. Data description

Foursquare data is investigated to recommend a location and type of restaurant.

To be able to advice on the problem I need to find the neighborhood with the best restaurants and check what kind of restaurants there are.

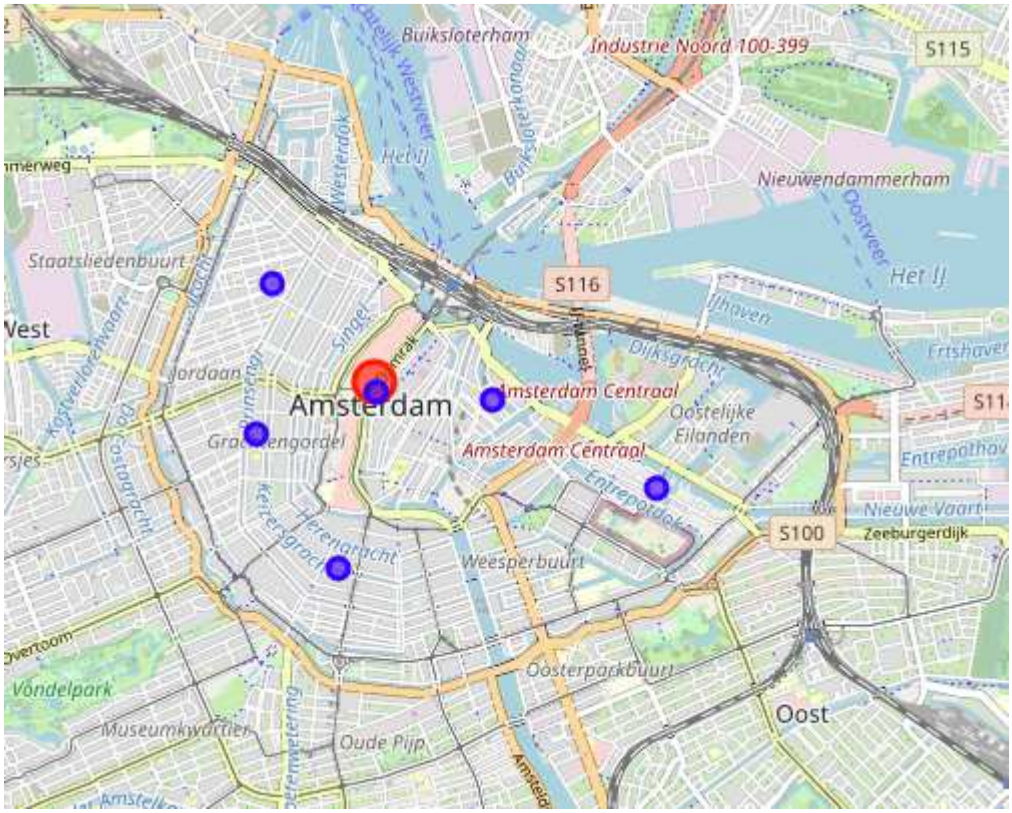
To find the best restaurants I will check the neighborhoods for the best venues, and select the neighborhood with most restaurants in the top 10 venues

When found I will choose a restaurant in that neighborhood that is not there yet to recommend.

2. Methodology

1.3. Data analysis

With location data for Amsterdam we locate the neighborhoods in the center



With location data for Amsterdam we check the neighborhoods in the center for venues

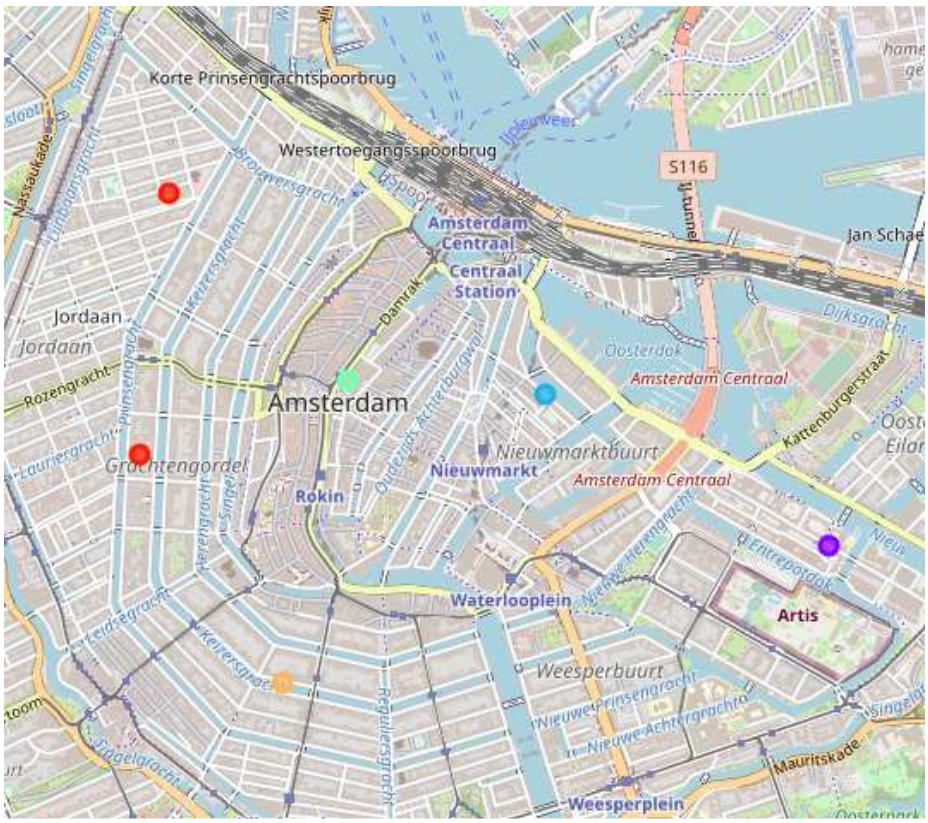
Through Foursquare in the following neighborhoods:

- Lastage, Oosterdokseiland, Rapenburg, Uilenburg, Valkenburg, Waterlooplein
- Burgwallen (Oudezijde en Nieuwezijde)
- Noordwestelijke Grachtengordel, Noord-Jordaan, Marnixplein
- Westelijke Grachtengordel, Zuid-Jordaan, Raamplein
- Zuidelijke Grachtengordel, Leidsebuurt, Weteringschans, Frederiksplein, Rembrandtplein
- Weesperbuurt, Plantage, Sarphatistraat, Kadijken, Oostelijke Eilanden, Czaar Peterbuurt

And we find the following number of venues:

Neighborhood	Venue
Burgwallen (Oudezijde en Nieuwezijde)	73
Lastage, Oosterdokseiland, Rapenburg, Uilenburg, Valkenburg, Waterlooplein	40
Noordwestelijke Grachtengordel, Noord-Jordaan, Marnixplein	100
Weesperbuurt, Plantage, Sarphatistraat, Kadijken, Oostelijke Eilanden, Czaar Peterbuurt	40
Westelijke Grachtengordel, Zuid-Jordaan, Raamplein	83
Zuidelijke Grachtengordel, Leidsebuurt, Weteringschans, Frederiksplein, Rembrandtplein	69

We find the most venues in neighborhood ”Noordwestelijke Grachtengordel, Noord-Jordaan, Marnixplein”



We find out the frequency of top ten venues in the neighborhoods to see where the most restaurants are and cluster them to examine.

3. Results

Results are the number of venues in the neigborhoods, the frequency of the various venues and where they are clustered.

4. Discussion

On the basis of noted results we can choose what type of restaurant we would want to open and in which neighborhood this would be best to do

5. Conclusion

Based on the results and discussion we can decide that a *French* restaurant in ”Noordwestelijke Grachtengordel, Noord-Jordaan, Marnixplein” would be the best choice