The Battle of Neighborhoods : Is Paris or Bordeaux the main french gastronomic pole?

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1. Introduction and Business Problem

The French city of Bordeaux, considered the world's top wine city, is now the flagship of gourmets restaurants. The region offers a wide choice of gourmet restaurants, family bistros and the famous wine bars.

But, when it comes to short gastronomic trips, tourists are always unsure if it is better to travel to Bordeaux, in the southwest of France, or to Paris, already known for the beauty of the city and also for the glamorous gastronomy.

This project has the purpose of comparing these two gastronomic poles in relation to the quantity and characteristics of their restaurants in order to define which french city is the best in terms of food experiences.

2. Data

To this project, we will use two csv files containing the main locations of the cities of Paris and Bordeaux. Each csv file contains 4 columns: ID, Name, Latitude and Longitude of the main points of the city.

For this work we will consider the 20 arrondissements of Paris and all the cities of the metropolis of Bordeaux.

The Figures bellow present the two dataframes created from each csv file.
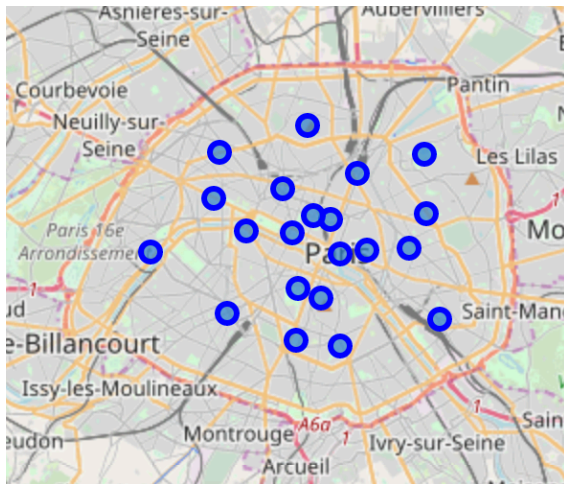
Head of Paris's dataframe for main locations:

	ID	NAME	LONG	LAT
0	0	CENTER	48.864716	2.349014
1	1	MUSÉE DU LOUVRE	48.861389	2.335000
2	2	BOURSE	48.865500	2.342600
3	3	MUSÉE CARNAVELET	48.857500	2.362222
4	4	HÔTEL DE VILLE	48.856389	2.352222

Head of Bordeaux's dataframe for main locations:

	ID	NAME	LAT	LONG
0	0	BORDEAUX CENTRE	44.833300	-0.566700
1	1	MÉRIADECK	44.836800	-0.586000
2	2	SAINT-CATHARINE	44.839722	-0.574167
3	3	GARE SAINT-JEAN	44.825833	0.555833
4	4	JARDIN PUBLIC	44.848888	-0.578056

Map visualisation of the dataframes

Paris

Bordeaux

With theses dataframes, we will use Foursquare development account to find all the restaurants, wine bars, bakeries, coffe shops or anywhere that offers a gastronomic experience.

It was necessary to perform a preprocessing work in the data, excluding locations that had nothing to do with gastronomic experiences and locations that appear repeated in the table.

The Figures below shows the result of the Foursquare requisition for the cities of Paris and Bordeaux, respectively.

	Name	Latitude	Longitude	VenueName	VenueLatitude	VenueLongitude	VenueCategory
4	CENTER	48.864716	2.349014	Raviolis Chinois Nord-Est	48.862844	2.349621	Chinese Restaurant
6	CENTER	48.864716	2.349014	Rice & Fish	48.865150	2.351435	Sushi Restaurant
9	CENTER	48.864716	2.349014	Bo&Mie	48.864050	2.350444	Bakery
11	CENTER	48.864716	2.349014	Partisan	48.864754	2.353069	Coffee Shop
15	CENTER	48.864716	2.349014	Le Pas Sage	48.864646	2.350066	French Restaurant

Dataframe of Paris restaurants

	Name	Latitude	Longitude	VenueName	VenueLatitude	VenueLongitude	VenueCategory
33	BORDEAUX CENTRE	44.833300	-0.566700	Books & Coffee	44.835976	-0.571408	Coffee Shop
34	BORDEAUX CENTRE	44.833300	-0.566700	L'Œnolimit	44.837020	-0.572042	Wine Bar
37	BORDEAUX CENTRE	44.833300	-0.566700	Padang Padang	44.837373	-0.570986	Asian Restaurant
98	SAINT-CATHARINE	44.839722	-0.574167	el sitio	44.836111	-0.571406	Tapas Restaurant
101	SAINT-CATHARINE	44.839722	-0.574167	Vins Urbains	44.838639	-0.570759	Wine Bar

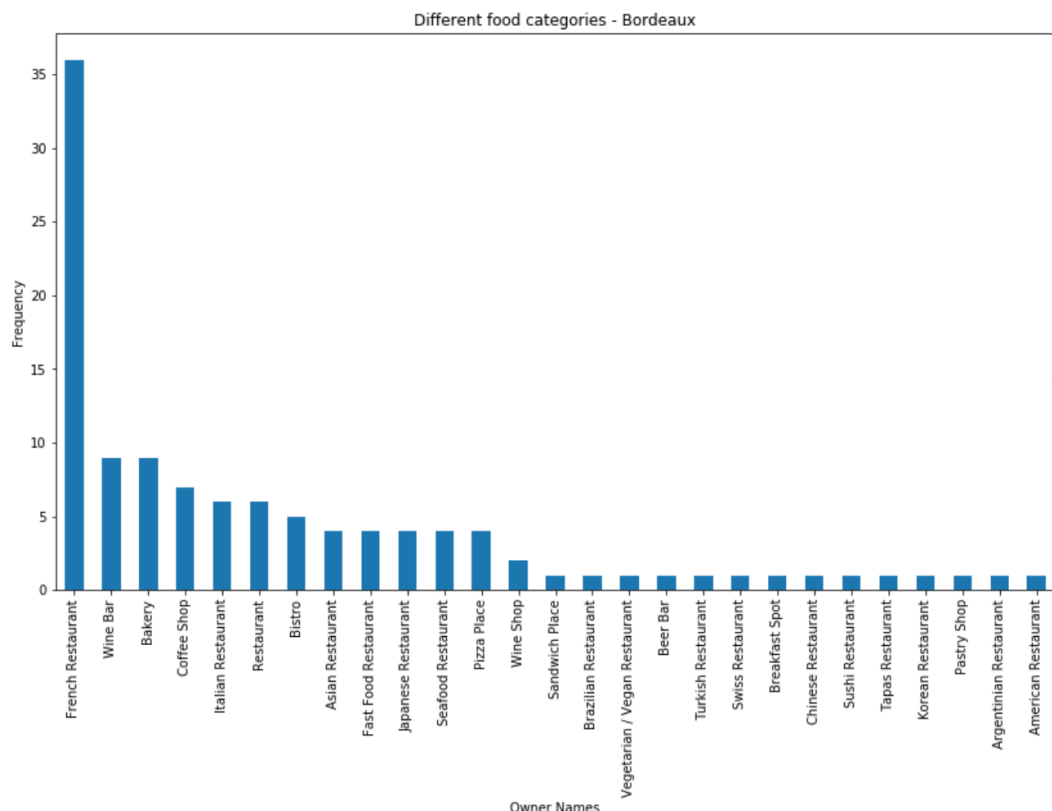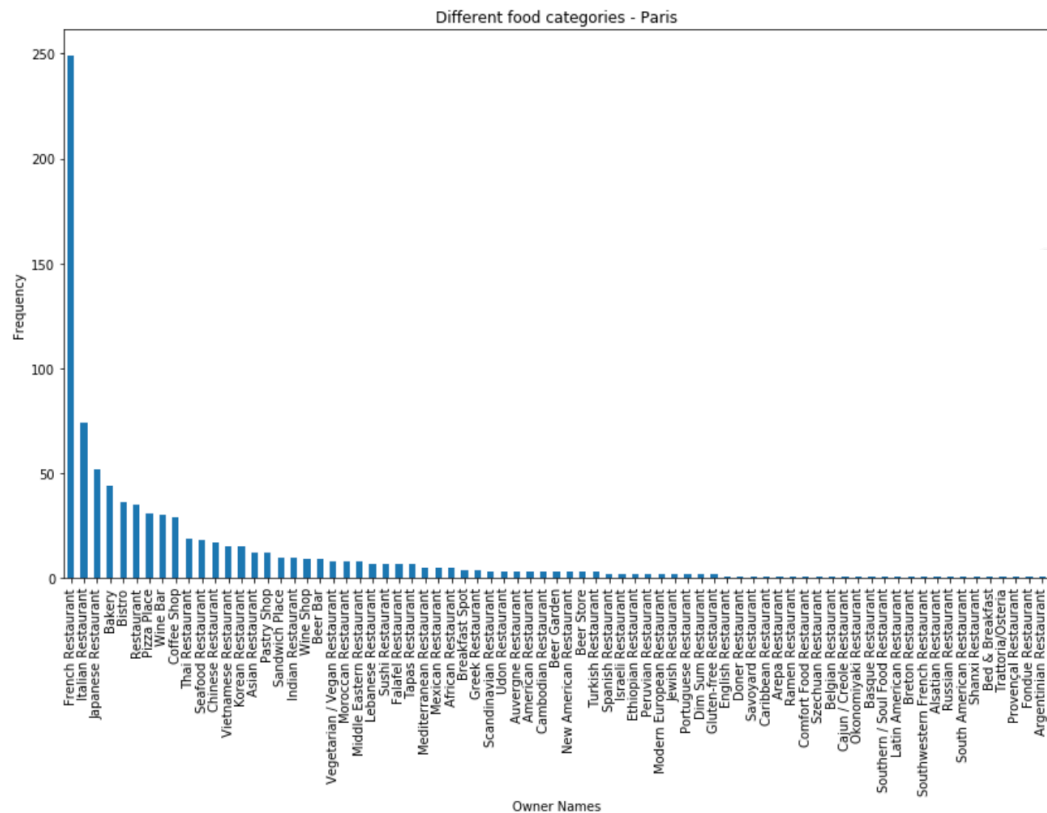Dataframe of Bordeaux restaurants

3. Methodology

1) First we will begin analysing the data frames to find out what types of restaurants we can find in each city, the types of restaurants that we can find in Paris but we cannot find in Bordeaux and the types of restaurants that we can find in Bordeaux but we cannot find in Paris. In order to make easy to visualise, we will use bar plots graphs.

2) Second, we will check the most diverse gastronomic neighbourhood for each city. That is, if we could only eat in one block, which one would give you the most options in terms of different categories of restaurants. The name of the neighbourhood with more food diversity will be showed.

4. Results

For the data made available by Foursquare, we can realize that there are 75 different kind of restaurants in Paris and only 27 in Bordeaux.

Because Paris is the capital and receives much more tourists than Bordeaux, this results makes sense. The data indicates that Paris is a more globalised city in terms of food and flavours.

Different food categories - Paris

Different food categories - Bordeaux

We can also visualize which restaurants exist in Paris that do not exist in Bordeaux and vice versa. We have 51 types of restaurants in Paris that we cannot find in Bordeaux, like African and Belgian restaurants and only 3 types of restaurants in Bordeaux that we cannot find in Paris: Brazilian, Swiss and Fast Food, which of course is a foursquare data categorisation error.

By looking at the data, we can conclude that if you would like to have Italian food experience you should go to Paris, however if you like to go to wine bars, you should definitely go to Bordeaux.

For last, we will find out the most diverse gastronomic neighborhood for each city. After coding, we discovered that for Paris, the most diverse neighborhood is the 'Rue Popincourt' with 31 different types of restaurants. For Bordeaux, the most diverse neighborhood are Bordeaux Centre and Jardin Public with 16 different types of restaurants.

5. Conclusion

Clearly we are not getting the full picture of all the restaurants that exists in Paris and Bordeaux. Looking at another prominent site for planning trips, TripAdvisor, we can see that the number of restaurants that are listed in Paris is about 16,503 and in Bordeaux is about 2,328.

That consistent with the 8:1 ratio that we found in our Foursquare sample. However, since a lot of category of restaurants are only listed once in Paris, we can't conclude with certain that there aren't restaurants in Bordeaux not listed in the current work because of the Foursquare sample.