

Where is the best place to open a restaurant in lisbon (with Foursquare API)

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Introduction

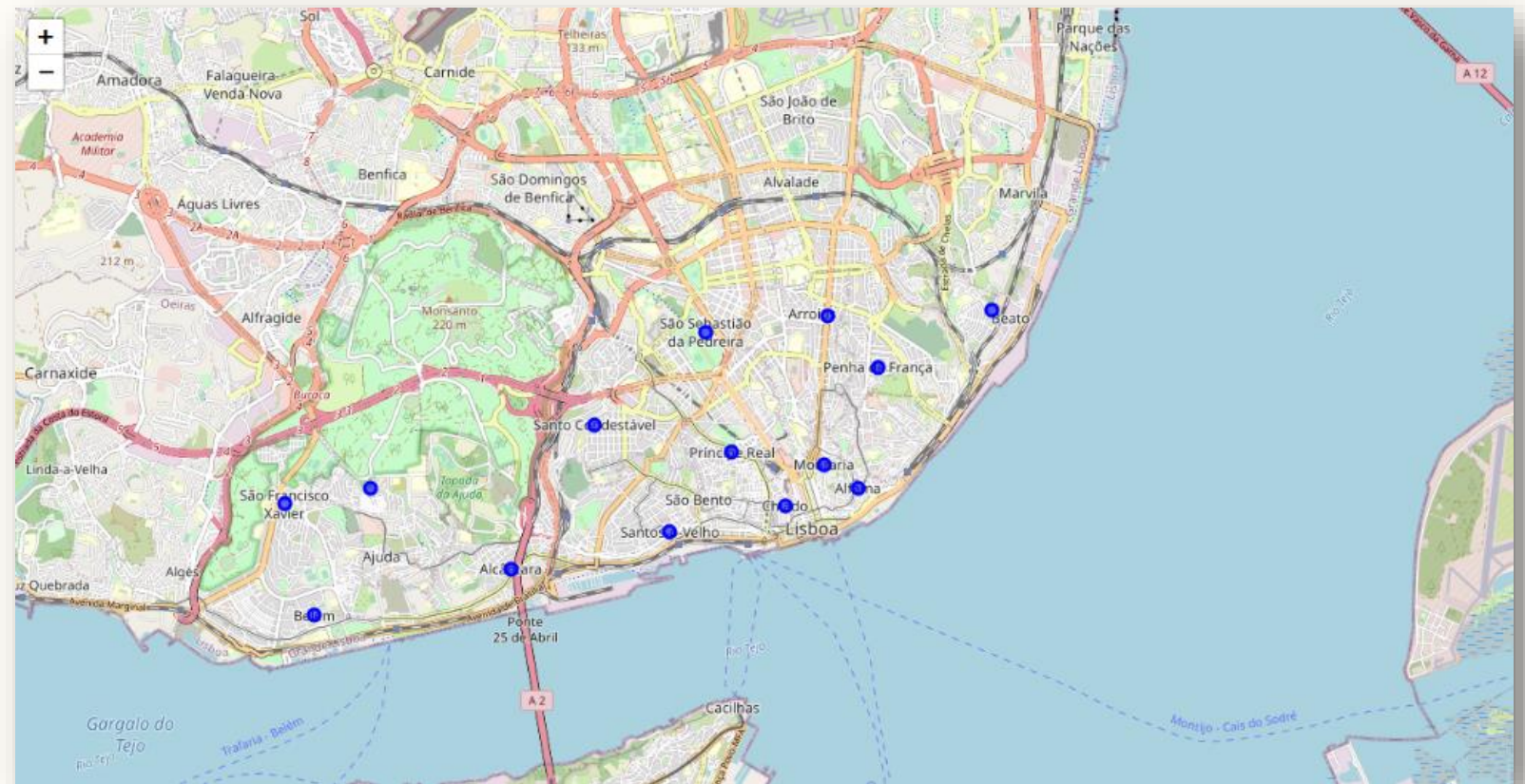
Starting a new business is always complicated but even more if you start in a completely new city, a city that you don't know and that you don't have the time to discover. Therefore, this project has to aim someone in this situation, a lack of knowledge about a city and its fundamentals.

Lisbon neighborhoods

	Latitude	Longitude
Alcântara	38.703113	-9.180685
Alfama	38.712287	-9.129858
Mouraria	38.714991	-9.134842
Principe Real	38.716407	-9.148270
Ajuda	38.712327	-9.201241
Beato	38.732622	-9.110240
Belém	38.697769	-9.209432
Santos-o-Velho	38.707323	-9.157380
Chiado	38.710330	-9.140519
Sao Bento	39.526646	-8.790177
Santo Condestavel	38.719582	-9.168407
Sao Sebastiao da Pedreira	38.730150	-9.152138
Sao Francisco Xavier	38.710503	-9.213808
Arroios	38.731932	-9.134246
Penha de Franca	38.726161	-9.126913



Main Neighborhoods

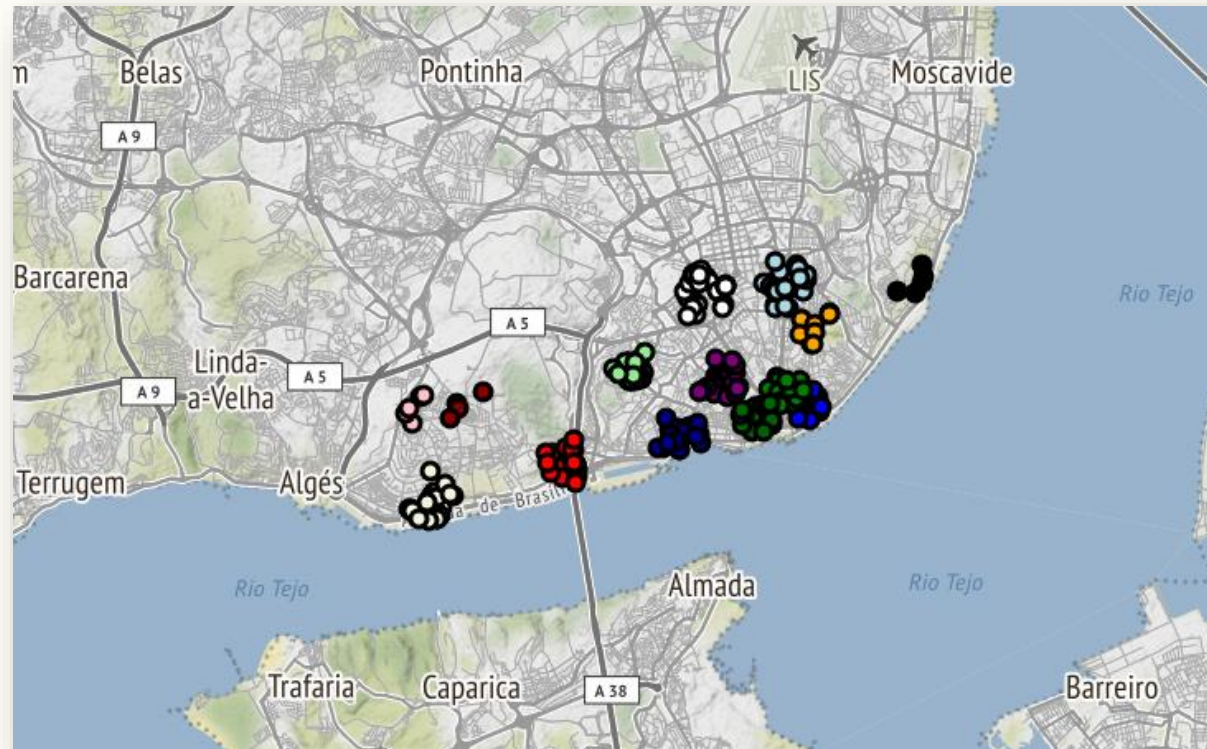


Now that we lay the foundation, lets use the Foursquare API to get information of the venues in Lisbon.

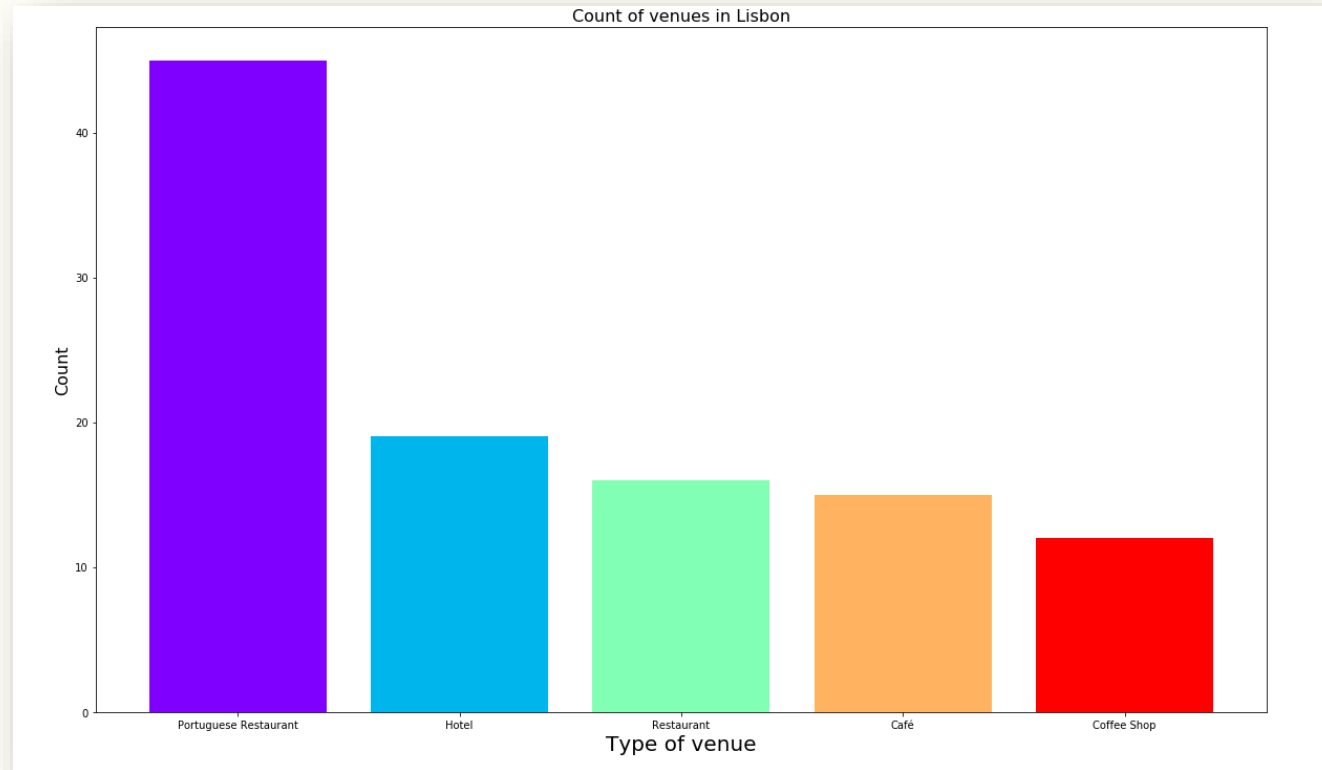
	Neighborhood	Venue	VenueLatitude	VenueLongitude	VenueCategory
314	Penha de Franca	Miradouro do Monte Agudo	38.726119	-9.131500	Scenic Lookout
315	Penha de Franca	Lidl	38.727171	-9.125546	Supermarket
316	Penha de Franca	Café Esplanada do Miradouro do Monte Agudo	38.726286	-9.131437	Café
317	Penha de Franca	Casinha dos Doces	38.727133	-9.125544	Coffee Shop
318	Penha de Franca	Pizza Hut	38.725426	-9.128492	Pizza Place
319	Penha de Franca	Olha Que Dois	38.723539	-9.129371	Portuguese Restaurant
320	Penha de Franca	Davito	38.722125	-9.129159	Italian Restaurant
321	Penha de Franca	Tebas	38.723779	-9.131739	Coffee Shop
322	Penha de Franca	Fábrica Do Físico	38.724036	-9.128460	Gym
323	Penha de Franca	gelados.come	38.722203	-9.128805	Ice Cream Shop



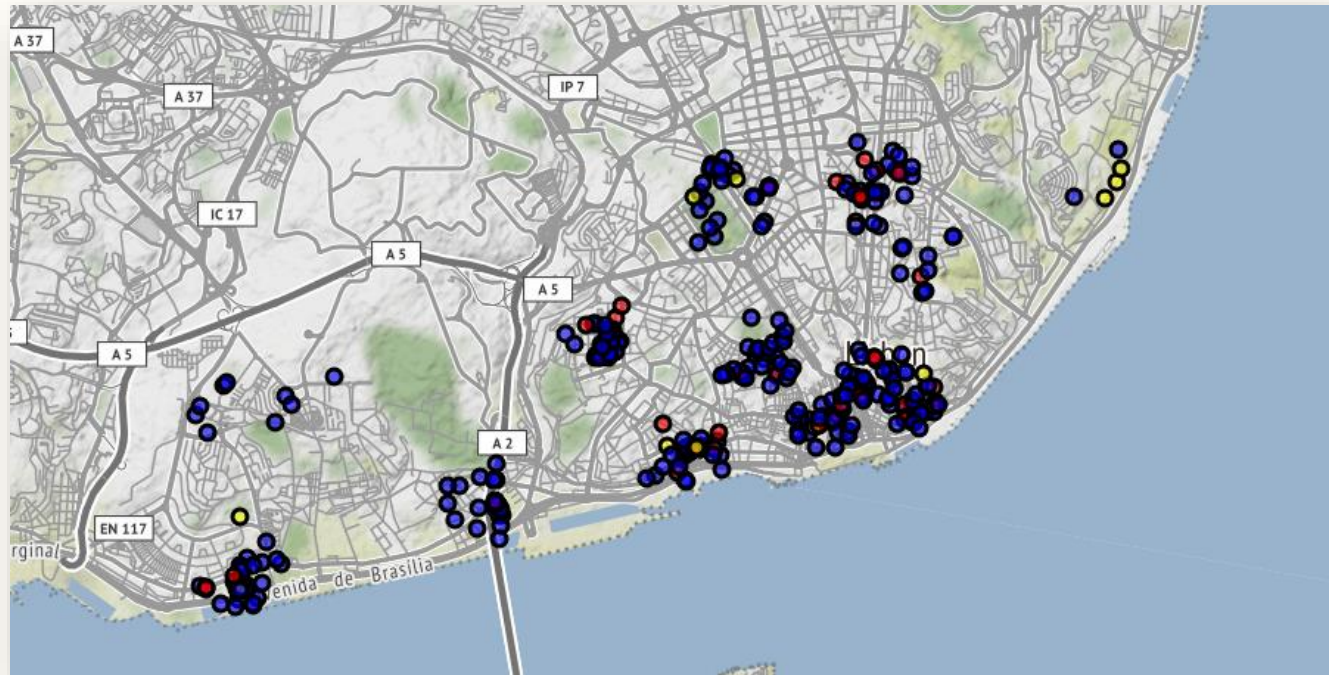
Venues in Lisbon from Foursquare API



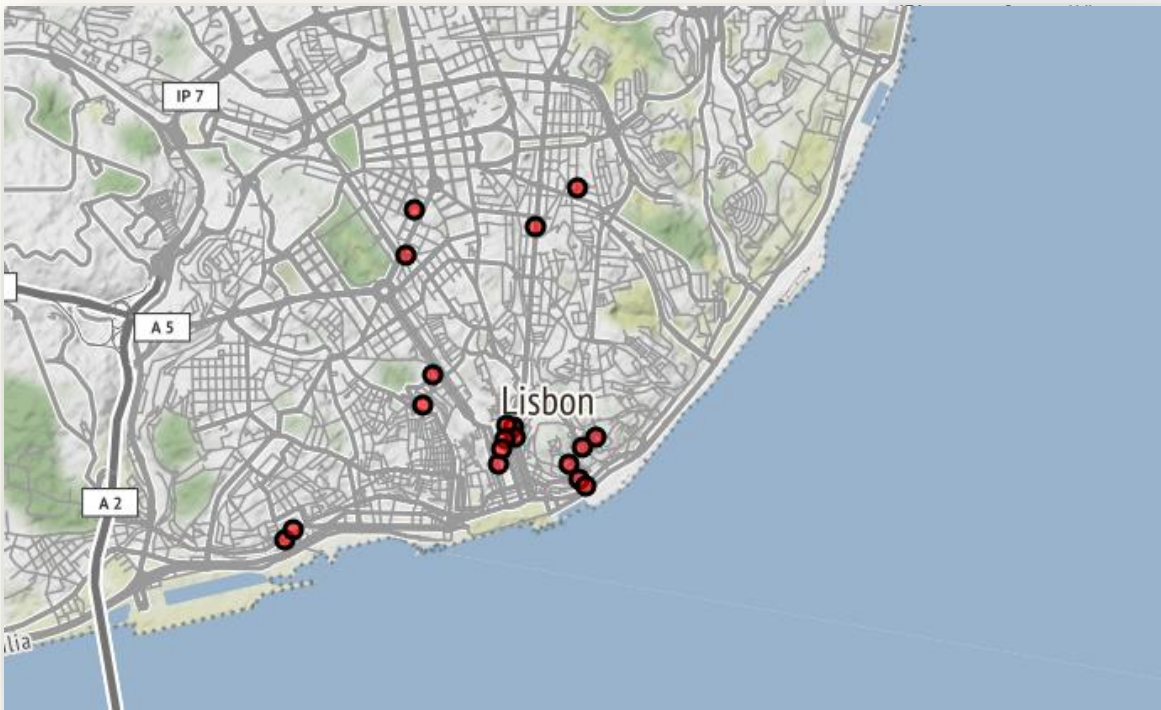
Venues by density



Restaurants/Portuguese Restaurants among venues



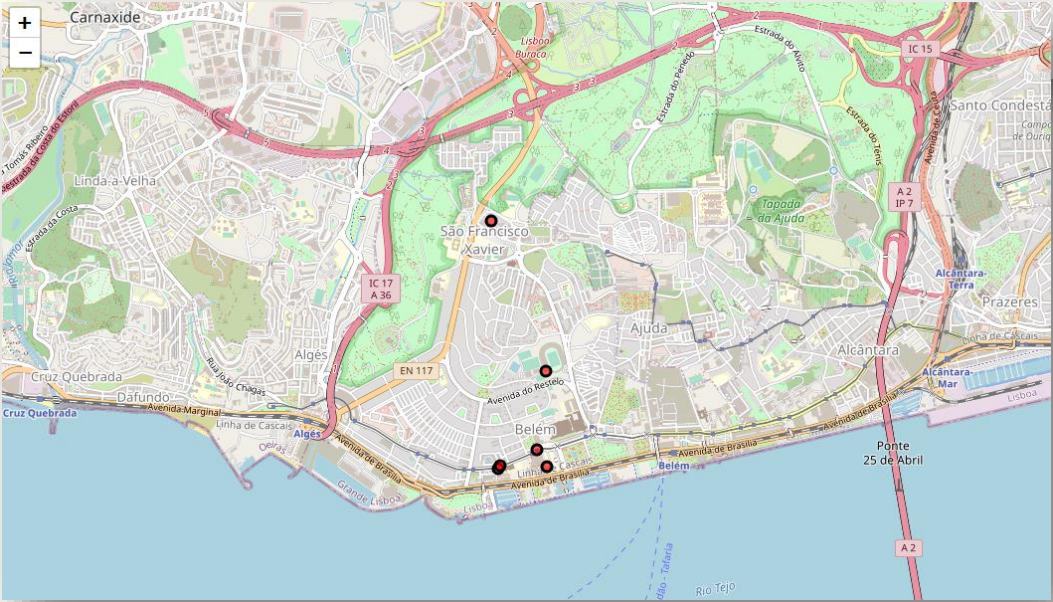
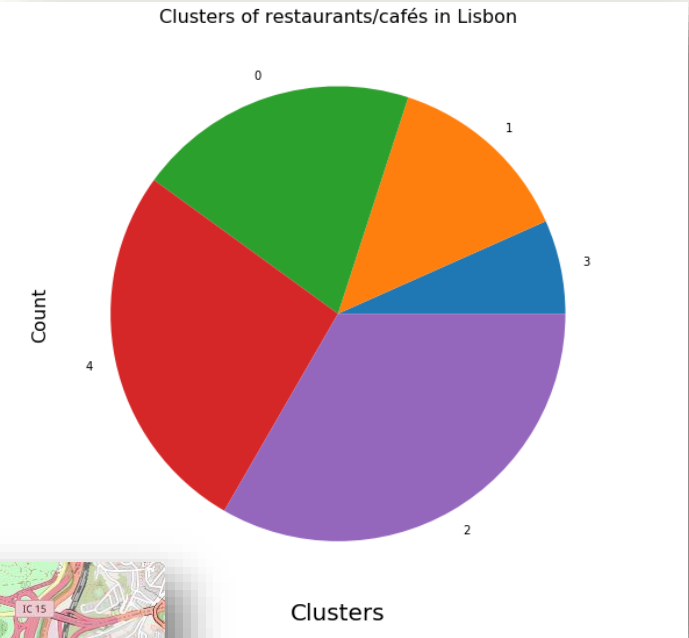
Let's look at the hotel,
and where they are:



[99] :					
	Neighborhood	Venue	VenueLatitude	VenueLongitude	VenueCategory
34	Alfama	Santiago de Alfama	38.711449	-9.131231	Hotel
36	Alfama	Memmo Alfama	38.710304	-9.130199	Hotel
40	Alfama	Hotel convento do Salvador	38.712807	-9.129892	Hotel
49	Alfama	Alfama Lounge Suites	38.713654	-9.128511	Hotel
53	Alfama	Hotel Palacete Chafariz de'l Rei	38.709806	-9.129534	Hotel
68	Mouraria	Hotel Portugal	38.714400	-9.136865	Hotel
73	Mouraria	Tesouro da Baixa	38.714640	-9.137485	Hotel
77	Mouraria	Lisboa Tejo Hotel	38.713620	-9.136734	Hotel
79	Mouraria	The Beautique Hotel	38.713519	-9.137683	Hotel
95	Principe Real	Memmo Principe Real Hotel	38.716161	-9.146148	Hotel
113	Principe Real	Sofitel Lisbon Liberdade	38.718660	-9.145059	Hotel
		Janelas Verdes	38.705433	-9.160109	Hotel
		Hotel York House	38.706224	-9.159258	Hotel
		Brown 's Hotel Central	38.711454	-9.138375	Hotel
		Hotel Santa Justa	38.712692	-9.138045	Hotel
		araton Lisboa Hotel & Spa	38.731753	-9.146995	Hotel
		Eurostars Lisboa Parque	38.728153	-9.147768	Hotel
		Vila Garden Guest House	38.730409	-9.134692	Hotel
		ace - Lisbon Lounge Suite	38.733399	-9.130302	Hotel

Clustering restaurants of Lisbon

	Cluster Labels	VenueLatitude	VenueLongitude
142	3	38.695090	-9.212624
145	3	38.695259	-9.212497
148	3	38.695248	-9.208428
157	3	38.696385	-9.209303
158	3	38.701688	-9.208539
282	3	38.711753	-9.213203





Conclusion

The food business is hard when it comes to aim the right target in a place you don't know. Using information on venues in the city allow the understanding of the sector. The heart of Lisbon is already largely taken by restaurants and would be too hard to become a competitor as strong as the place that are already implanted. Therefore, a right choice would be to target a low competitive area to start, because people would come for you and that would allow the business to grow and maybe become unique.