

Analyzing TOP Venues in Spain

In this project we are going to **explore** how the **venues** are distributed in Spain.

An entrepreneur can decide what specific kind of enterprise can be founded and also where is the **best place** to create it, based on the competence nearby.



Data acquisition and cleaning

- ◆ **Cities of Spain:**

Scrap from Wikipedia:

https://es.wikipedia.org/wiki/C%C3%B3digo_postal_de_Espa%C3%B1a

- ◆ **Coordinates based on each Province of each City:**

From excel file:

<https://www.businessintelligence.info/resources/assets/listado-longitud-latitud-municipios-espana.xls>

- ◆ **Foursquare Database of the principal venues of each City:**

www.foursquare.com

	Postcode	City
0	1	Alava
1	2	Albacete
2	3	Alicante
3	4	Almería
4	5	Ávila

(52, 2)



	City	Municipio	Latitude	Longitude
0	Almería	Abla	37.14114	-2.780104
1	Almería	Abrucena	37.13305	-2.797098
2	Almería	Adra	36.74807	-3.022522
3	Almería	Albánchez	37.28710	-2.181163
4	Almería	Alboloduy	37.03319	-2.621750

(8112, 4)



	Postcode	City	Latitude	Longitude
0	1	Alava	42.84641	-2.667893
1	2	Albacete	38.99765	-1.860070
2	3	Alicante	38.34520	-0.481006
3	4	Almería	36.84016	-2.467922

(52, 4)



Getting the venues

	City	City Latitude	City Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Alava	42.84641	-2.667893	la cassette	42.847755	-2.669211	Cocktail Bar
1	Alava	42.84641	-2.667893	Plaza de Abastos	42.844340	-2.667199	Grocery Store
2	Alava	42.84641	-2.667893	Bar El Nuevo	42.847345	-2.670517	Bar
3	Alava	42.84641	-2.667893	Bar Aldapa	42.847285	-2.670917	Bar
4	Alava	42.84641	-2.667893	Toloño	42.846997	-2.671459	Bar
...
3139	Melilla	35.29234	-2.938794	Puerto Deportivo Noray	35.289133	-2.935677	Harbor / Marina
3140	Melilla	35.29234	-2.938794	La Cala Gastrobar	35.289028	-2.935714	Gastropub
3141	Melilla	35.29234	-2.938794	Sala Manhattan	35.288825	-2.935889	Pub
3142	Melilla	35.29234	-2.938794	Ciudadela Melilla la Vieja	35.293792	-2.933825	Castle
3143	Melilla	35.29234	-2.938794	Seven Sins Lounge Club	35.288605	-2.935736	Cocktail Bar

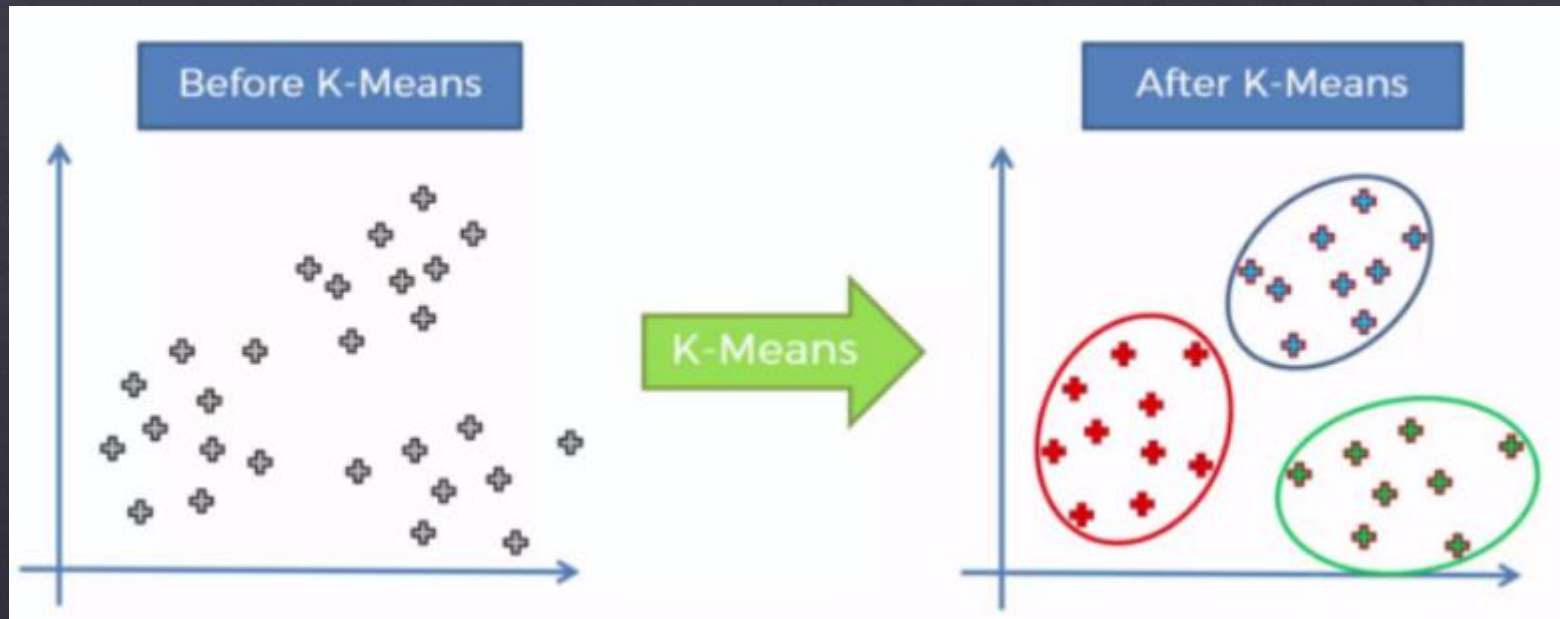
Grouping similar venues into greater categories

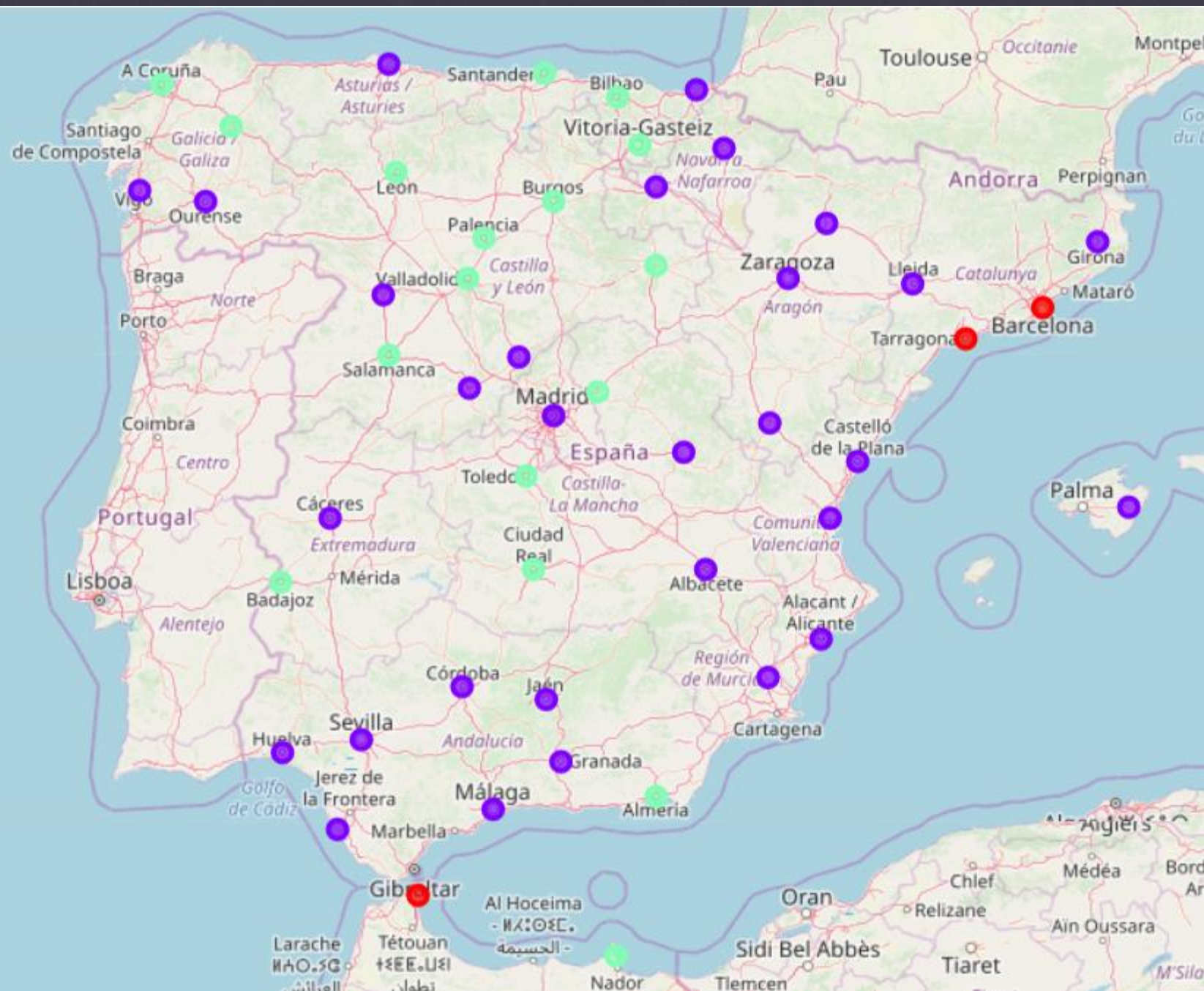
	City	City Latitude	City Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category	Greater Category
0	Alava	42.84641	-2.667893	la cassette	42.847755	-2.669211	cocktail bar	bar
1	Alava	42.84641	-2.667893	Plaza de Abastos	42.844340	-2.667199	grocery store	store
2	Alava	42.84641	-2.667893	Bar El Nuevo	42.847345	-2.670517	bar	bar
3	Alava	42.84641	-2.667893	Bar Aldapa	42.847285	-2.670917	bar	bar
4	Alava	42.84641	-2.667893	Toloño	42.846997	-2.671459	bar	bar
...
3139	Melilla	35.29234	-2.938794	Puerto Deportivo Noray	35.289133	-2.935677	harbor / marina	harbor / marina
3140	Melilla	35.29234	-2.938794	La Cala Gastrobar	35.289028	-2.935714	gastropub	pub
3141	Melilla	35.29234	-2.938794	Sala Manhattan	35.288825	-2.935889	pub	pub
3142	Melilla	35.29234	-2.938794	Ciudadela Melilla la Vieja	35.293792	-2.933825	castle	castle
3143	Melilla	35.29234	-2.938794	Seven Sins Lounge Club	35.288605	-2.935736	cocktail bar	bar

Most similar venues in each city

City	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Alava	bar	restaurant	plaza	cafe	place	art	store	boutique	garden	museum
Albacete	restaurant	shop	plaza	market	store	cafe	winery	general entertainment	hotel	food
Alicante	restaurant	shop	plaza	bar	hotel	place	pub	cafe	park	castle
Almeria	restaurant	bar	shop	historic site	pub	hotel	lounge	plaza	breakfast spot	market
Asturias	restaurant	bar	store	pub	shop	music venue	garden	place	plaza	winery
Avila	restaurant	plaza	bar	hotel	cafe	food	shop	monument / landmark	museum	pub
Badajoz	restaurant	plaza	bar	pub	club	cafe	shop	store	garden	historic site
Baleares	restaurant	market	winery	food	club	convention center	creperie	cultural center	deli / bodega	diner
Barcelona	restaurant	hotel	shop	store	bar	theater	plaza	bistro	cafe	place

Clustering (KMeans)





The most different cluster

	City	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
7	Barcelona	restaurant	hotel	shop	store	bar	theater	plaza	bistro	cafe	place
42	Tarragona	shop	market	place	hotel	art	bakery	plaza	store	event space	breakfast spot
50	Ceuta	hotel	cafe	beach	plaza	restaurant	store	shop	general entertainment	government building	harbor / marina

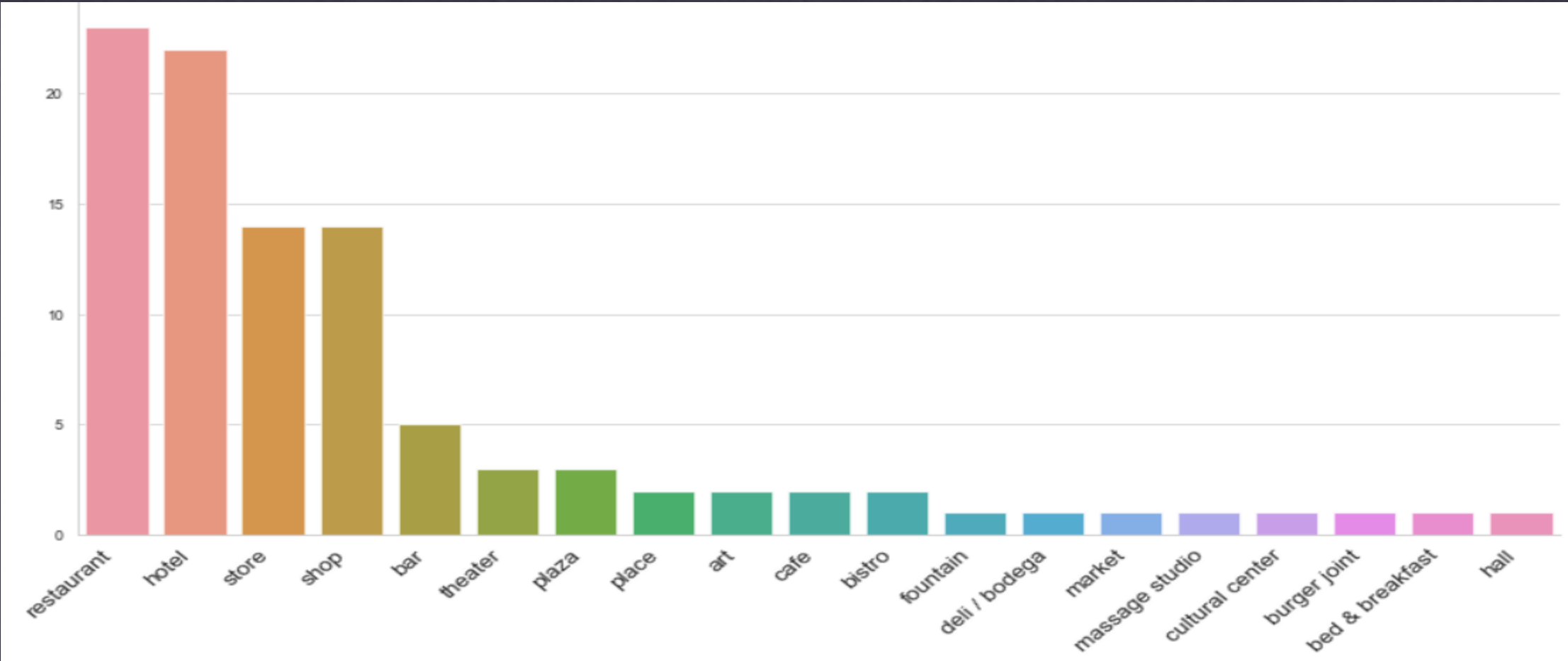
We see that Cluster 1 consist of cities which don't prioritize bars/pubs.

So maybe **Barcelona**, **Tarragona** and **Ceuta** could be considered to open a Bar or a Pub.

We could focus on that cities and do a thorough analysis.

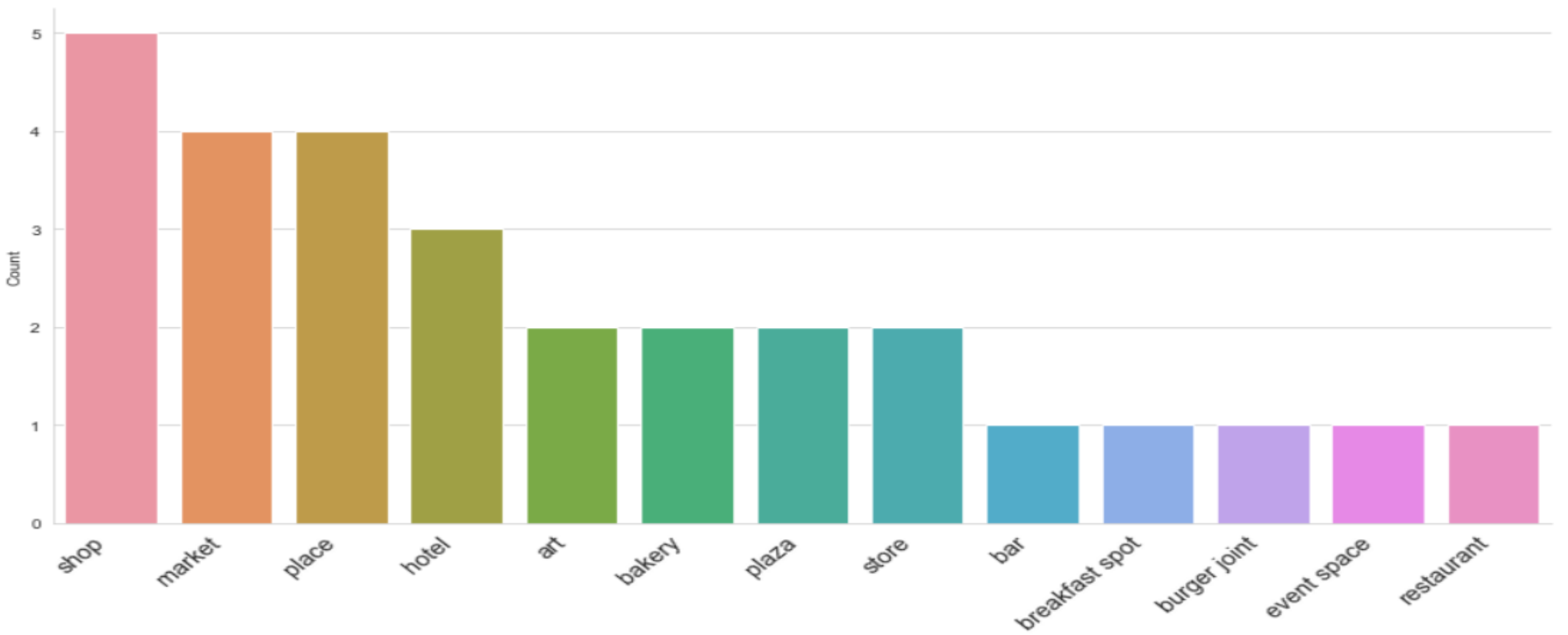
Barcelona

City	restaurant	hotel	store	shop	bar	theater	plaza	bistro	cafe	art	place	fountain	deli / bodega	market	massage studio	cultural center	burger joint	bed & breakfast	hall
Barcelona	23	22	14	14	5	3	3	2	2	2	2	1	1	1	1	1	1	1	1



Tarragona

	shop	market	place	hotel	art	bakery	plaza	store	bar	breakfast spot	burger joint	event space	restaurant
City													
Tarragona	5	4	4	3	2	2	2	2	1	1	1	1	1



Ceuta

	cafe	hotel	beach	plaza	restaurant	shop	store
City							
Ceuta	2	2	1	1	1	1	1

