



VETERINARIES SEARCH

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Description

- The problem we are looking to solve here is the one usually found by pet owners when they need to find a nearby veterinary in an unknown location. This happens quite often specially in an emergency or when travelling with pets.
- The target user is any pet owner from any kind of background.



Data & Parameters:

- Data obtained from the Foursquare API.
- Base city: Miami
- Number of veterinaries: up to 20
- Base location:
 - *latitude*= 25.809967
 - *longitude*=-80.311378
- Radius from base location: 10 Km
- Number of parking spots: Up to 30
- Radius from Vet: 1.5 Km

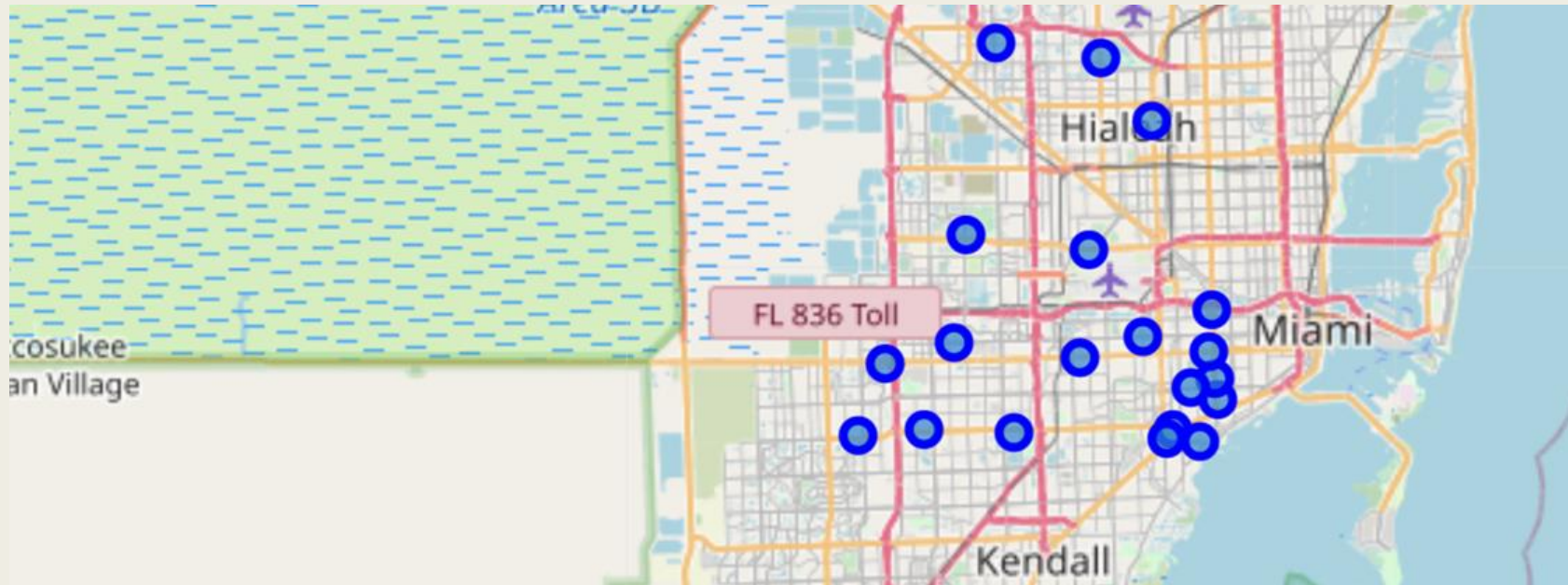
Results

Results after requesting the info regarding near parking spots from each of the location, radius = 1500 limited to up to 30 results. Average distance from parking spot to veterinary was computed, also the maximum and minimum distance.

	name	categories	city	distance	formattedAddress	lat	lng	id	rating	Number of parking spots	Average distance of parking spots	Minimun distance	Maximum distance
0	USDA Veterinary Services	Veterinarian	Miami	1518	[6300 NW 36 th Street, Miami, FL 33166, United...	25.806696	-80.296666	4bd58af129eb9c749c6b93e1	None	1	1306.0	1306	1306
1	Knowles Animal Clinics	Veterinarian	Miami	7816	[1000 NW 27th Ave, Miami, FL 33125, United Sta...	25.782310	-80.239690	4bac14d5f964a520fee23ae3	None	3	1686.0	1508	1942
2	Silver Bluff Animal Clinic	Veterinarian	Miami	10307	[2515 SW 27th Ave, Miami, FL 33133, United Sta...	25.745206	-80.237882	4ba0e796f964a520008637e3	None	1	704.0	704	704
3	Mueller Animal Hospital	Veterinarian	Hialeah	7148	[4148 E 8th Ave, Hialeah, FL 33013, United Sta...	25.860256	-80.267007	4d30abe5f986a09332dbfe66	None	2	992.0	362	1623
4	Doral Pet Resort	Veterinarian	NaN	4176	[Florida, United States]	25.812941	-80.352926	4e32959462e12985fd631401	None	2	856.0	166	1546
5	Dr. Garcia	Veterinarian	Tamiami	12696	[Tamiami, FL, United States]	25.730311	-80.402028	52877ebd11d2a9f79c567ffd	None	1	1940.0	1940	1940
6	Pet Lovers Animal Clinic	Veterinarian	Miami	9563	[Miami, FL 33184, United States]	25.760405	-80.389310	4c34b2447cc0c9b6bfc0f39a	None	10	1535.0	869	1841

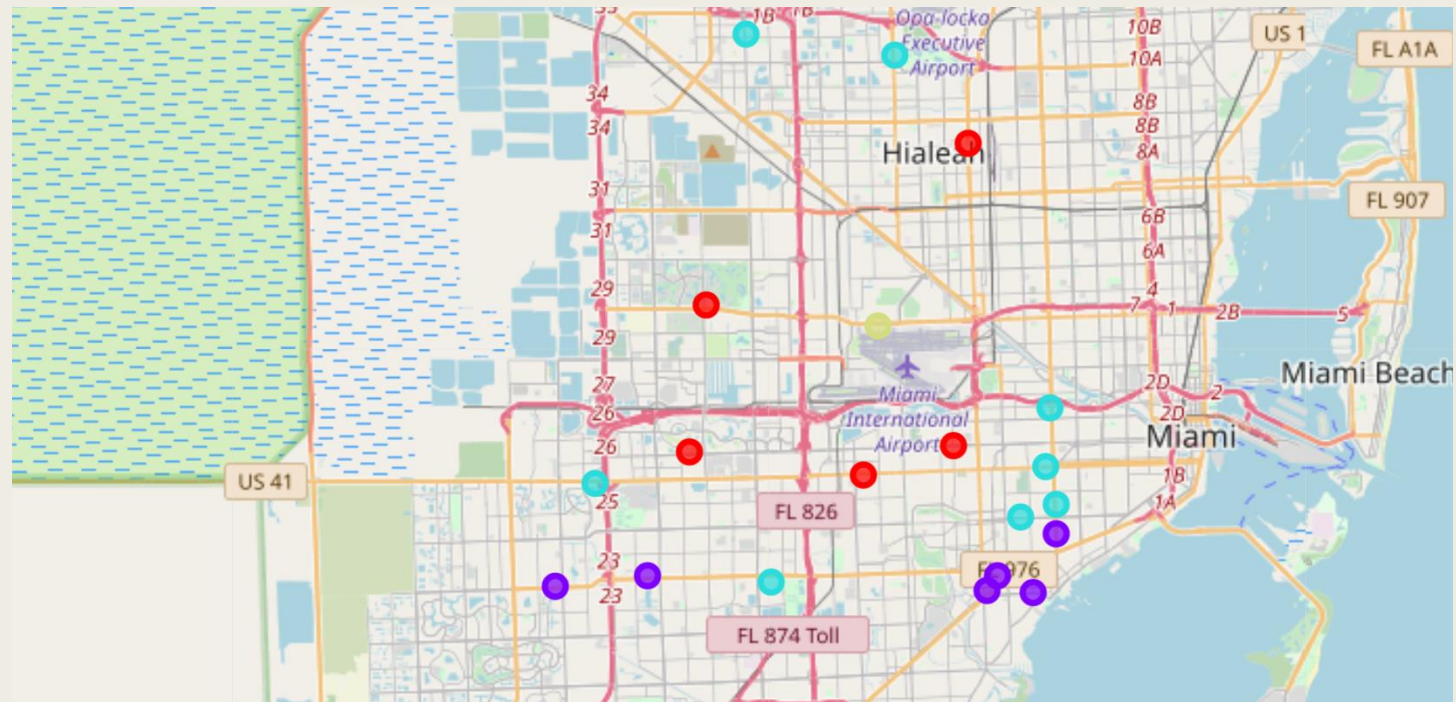
Results

Map of the 20 obtained veterinaries location without clustering.



Results

Map of the obtained veterinaries location after clustering. $K=4$



CONCLUSIONS

- Foursquare is a very flexible tool that allows for a wide variety of analysis with a proper data processor on hand.
- Rating was not a good variable since it was not something that could be found for most of the members of the data set.
- Parking spots was a good variable because the info was readily available and in real life is a very important feature to take into account and there is room to make further analysis around this feature.
- The algorithm divided our data set into 4 different clusters, when analyzing these divisions, it is noted that the main variable taken into account followed by the distance from the veterinary to the nearest parking spot.