

BEST PLACE TO OPEN NEW GOLD'S GYM

Capstone Project - The Battle of Neighborhoods



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Introduction



New Gold's Gym

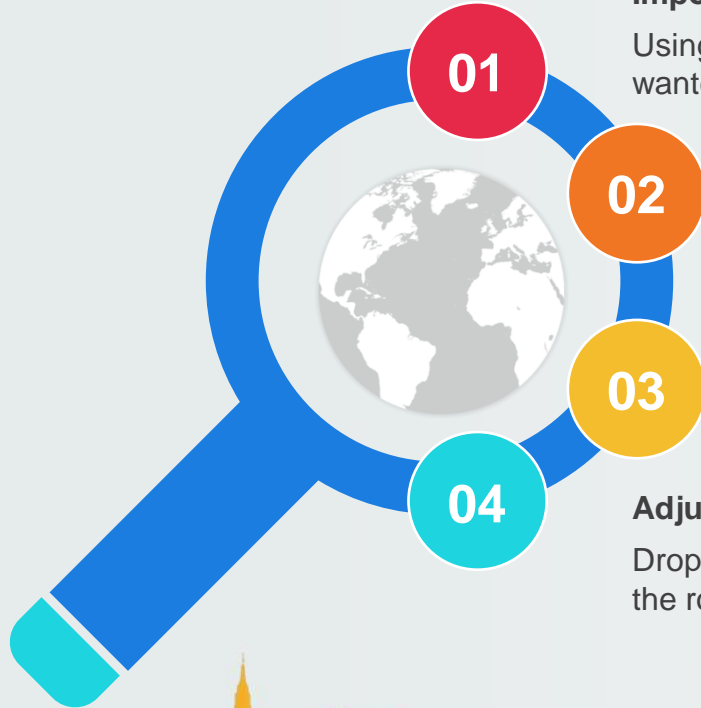
This work want to support the decision makers to do the more accuracy chose better location for this.

What's the problem:

- Gym location is very crowded;
- Around has many concurrent;
- The neighborhood has high price;
- Risk to lose clients.



Data acquisition and cleaning



01 Import the data on Foursquare API.

Using the free account, send a location and the type of place that is wanted.

02

Assign relevant part of JSON.

Drop the irrelevant parts of JSON file got by Foursquare API.

03

Transform to dataframe

Change the data using library pandas to manipulate.

04

Adjust the dataframe

Drop the columns that is unnecessary, extract the category and filter the rows.



Methodology

Clustering

The method chosen is K-Means, because give the clusters with desired regions by location.

Print the map the points
Using folium library for Python
to see the its distribution

01



Clustering the point
Using K-Means method.

02



Reprint the map with clusters
Print the map with points
differentiated by color.

03

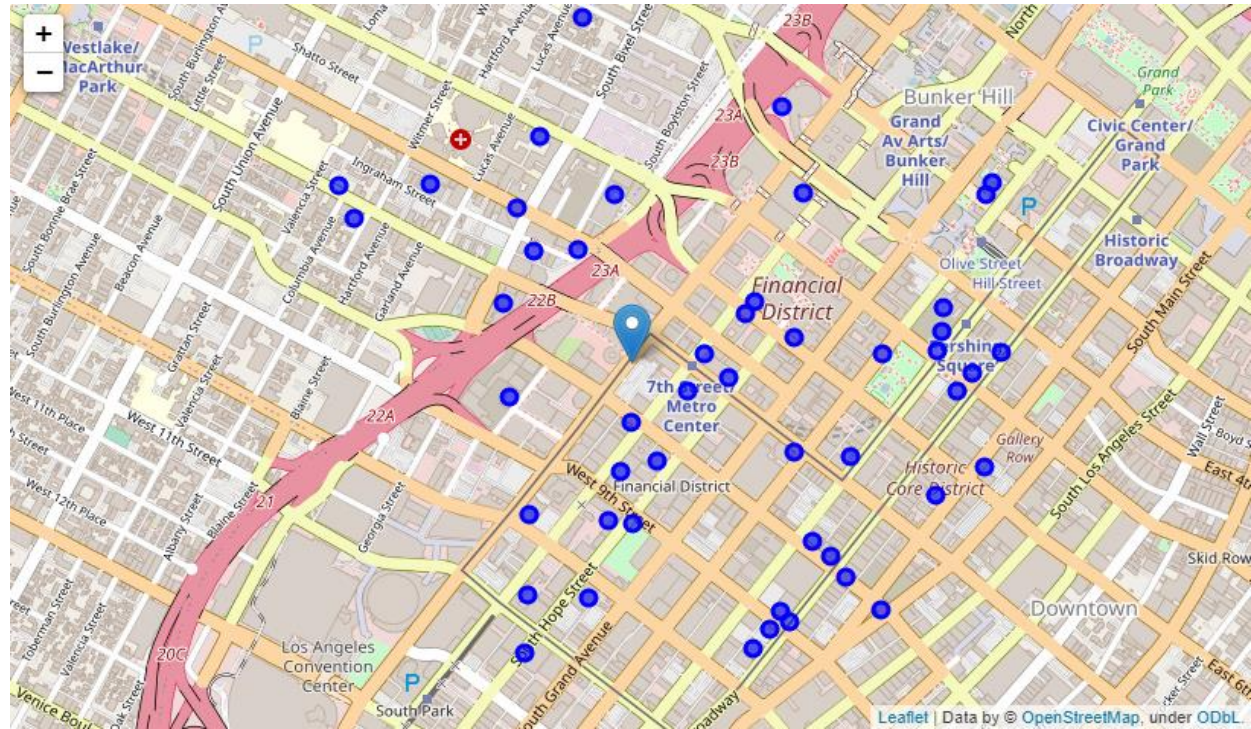


Accounting
Group by the quantity of points
per cluster.

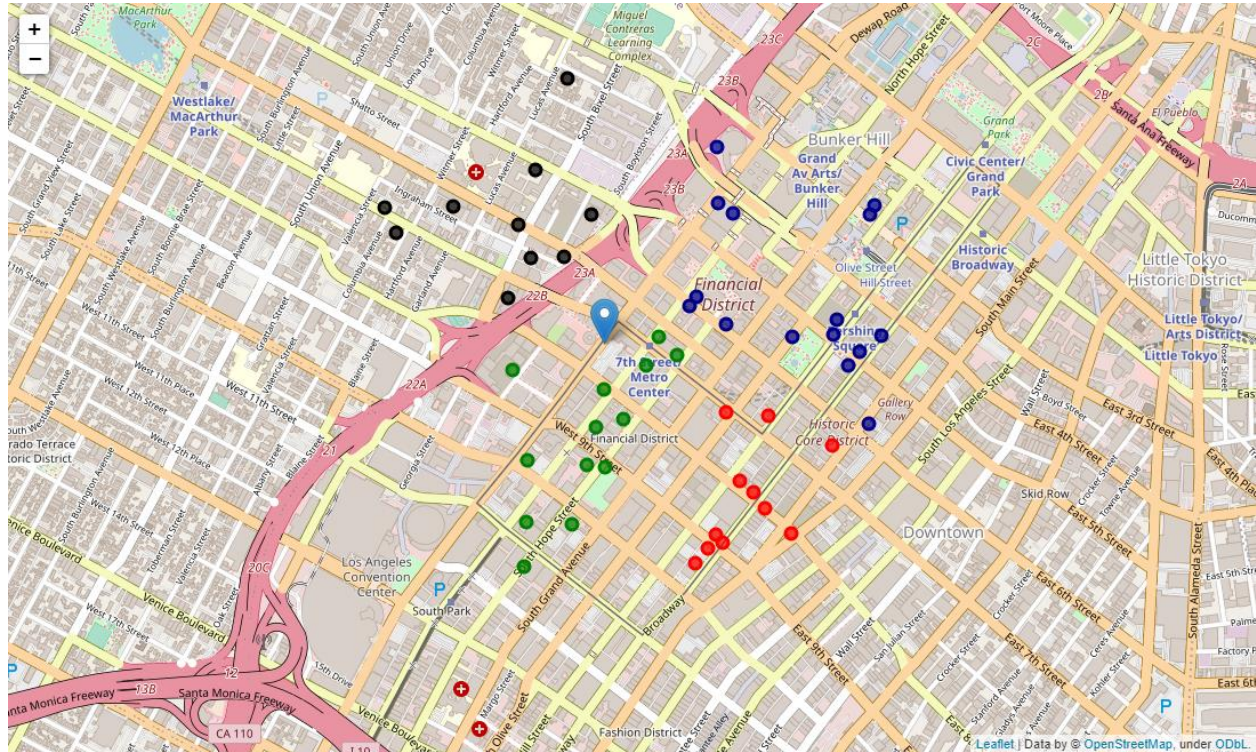
04



Map



Map with clusters

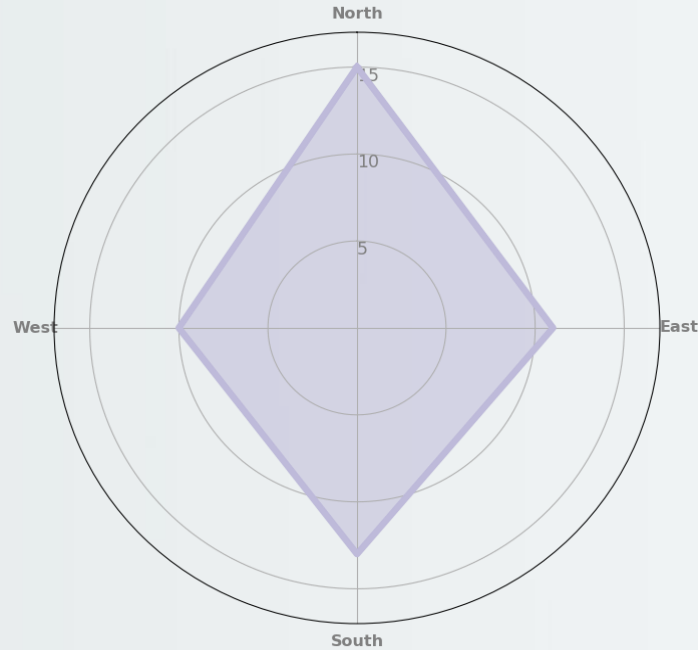


Quantity per cluster

	Cluster Labels	Number of gyms
Cluster 0	West	10
Cluster 1	South	13
Cluster 2	East	11
Cluster 3	North	15



Quantity per cluster

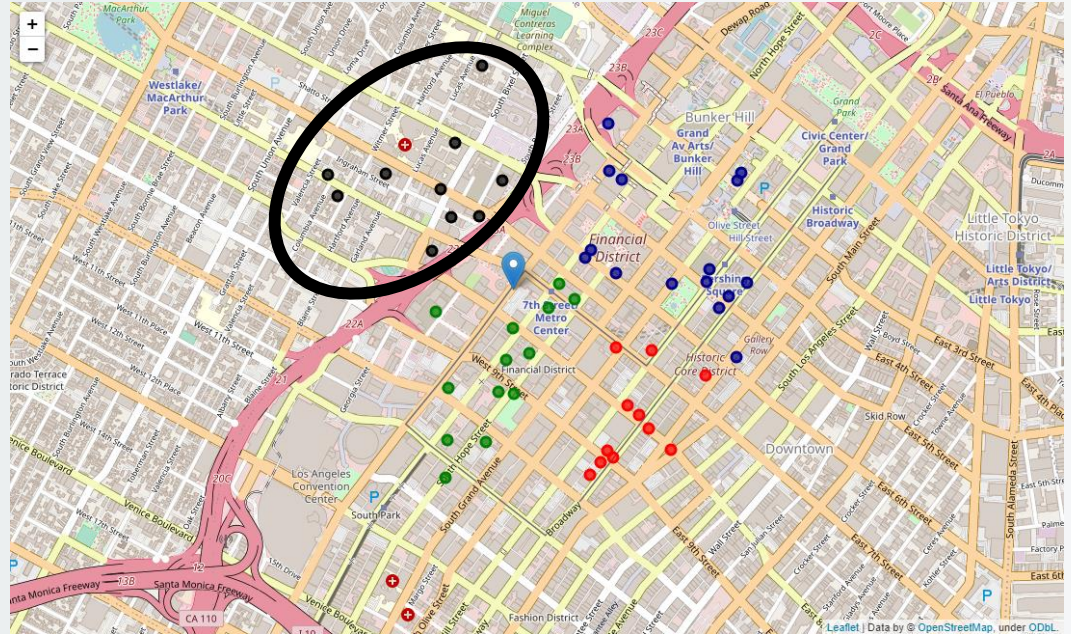


Conclusion

The best location to open new gym has been shown in figure.

Figuring out the quantity of concurrent in that neighborhood.

For more accuracy is need searching the qualitative characteristic of this client, this is possible using marketing interview.





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Thank you!

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