

An Exploration of the City of New Orleans to determine a
possible location for a tea house that would serve the
local yoga community

The Battle of the Neighborhoods (Week 2)

By

Shiju George

Feb 1, 2021

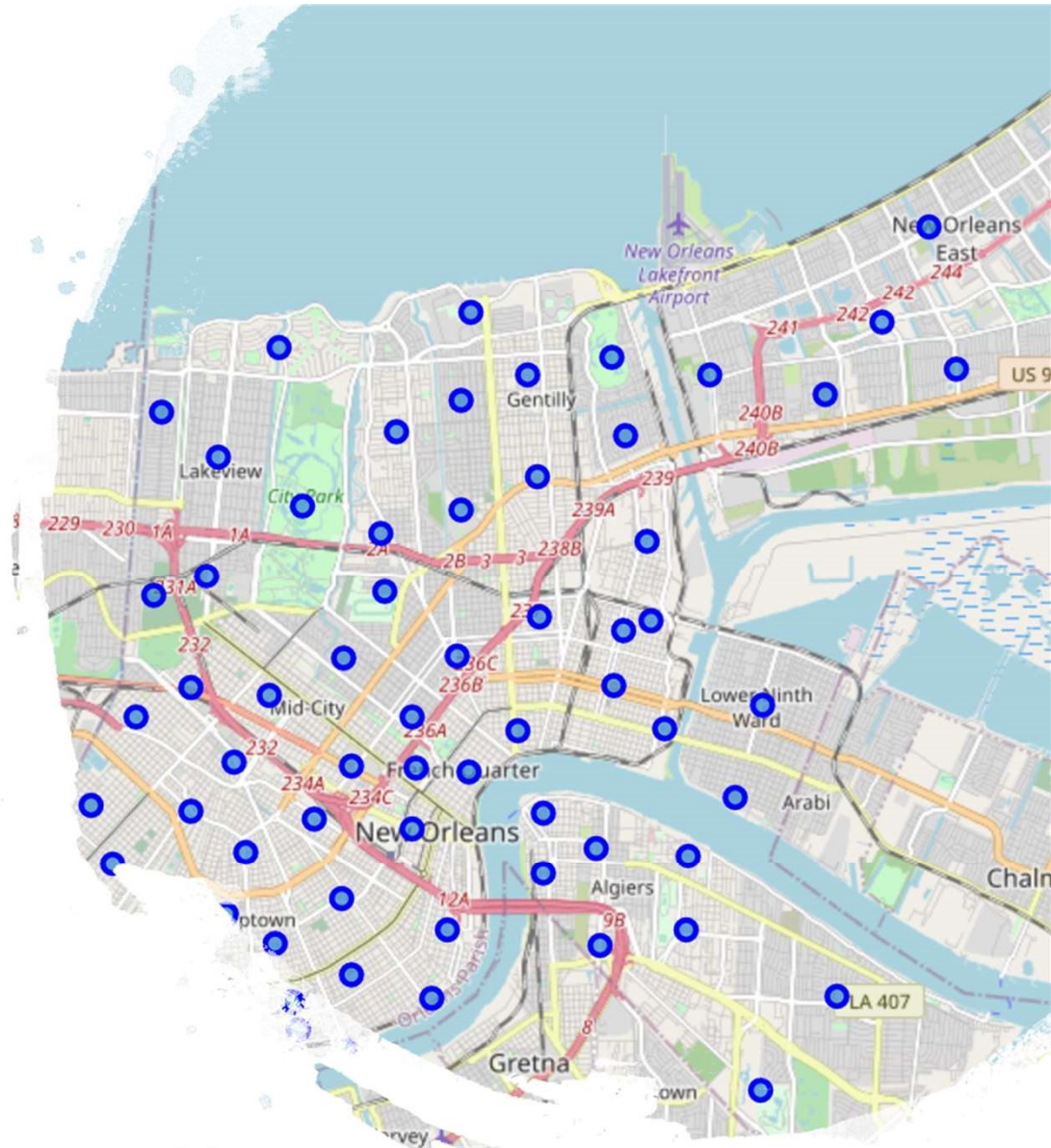
Objective:

- The project Client wishes to open a specific type of tea shop in New Orleans that will provide traditional teas in a space which promotes and supports positive community engagement and wellbeing.
- In this regard, he would like to locate his tea house in an area close to a yoga studio and wants to know where this location might be. Ideally, the location should also have limited competition from other beverage venues.

Map of New Orleans with neighborhoods

Neighborhood locations scrapped from https://en.wikipedia.org/wiki/Neighborhoods_in_New_Orleans

	Neighborhood	Longitude	Latitude
0	U.S. NAVAL BASE	-90.026093	29.946085
1	ALGIERS POINT	-90.051606	29.952462
2	WHITNEY	-90.042357	29.947200
3	AUDUBON	-90.121450	29.932994
4	OLD AURORA	-90.000000	29.924440



- Foursquare Labs Inc. location API used to locate venues and venue categories in each neighborhood.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	U.S. NAVAL BASE	29.946085	-90.026093	The Mighty Mississippi	29.949695	-90.023710	Boat or Ferry
1	ALGIERS POINT	29.952462	-90.051606	Tout de Suite Café	29.952121	-90.051090	Café
2	ALGIERS POINT	29.952462	-90.051606	Congregation Coffee Roasters	29.951918	-90.053395	Coffee Shop
3	ALGIERS POINT	29.952462	-90.051606	The Crown & Anchor	29.951416	-90.054220	Bar
4	ALGIERS POINT	29.952462	-90.051606	Levee @ Algiers Point	29.951760	-90.048747	Scenic Lookout

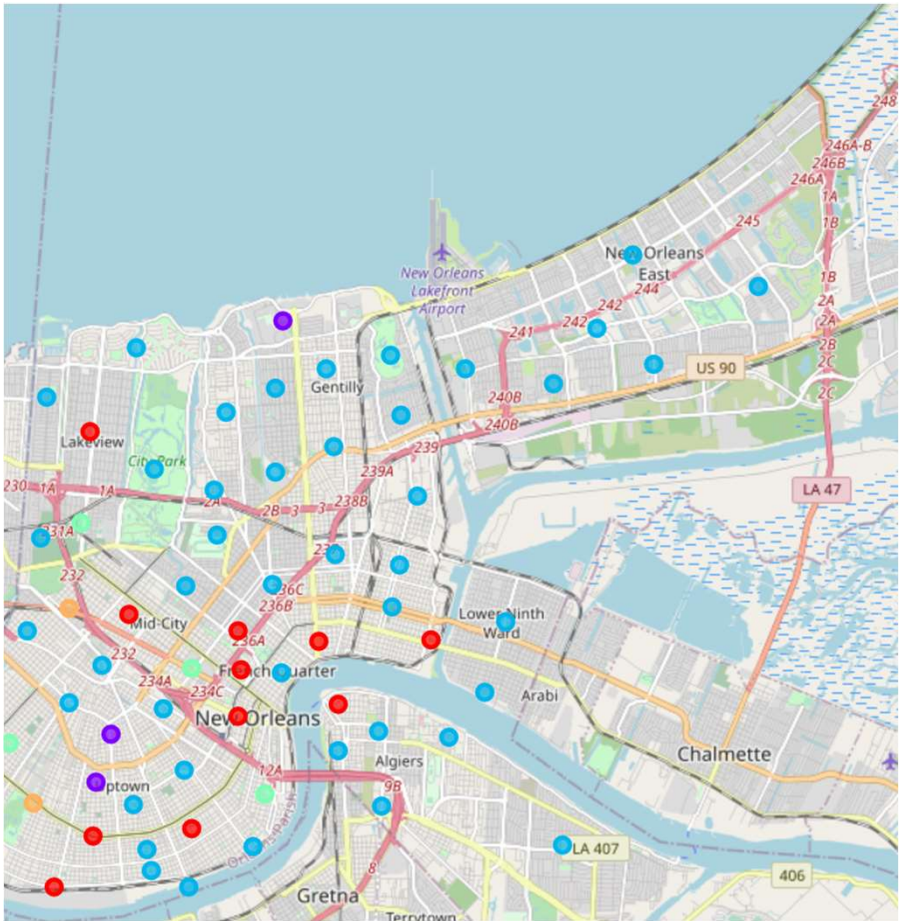
Methodology:

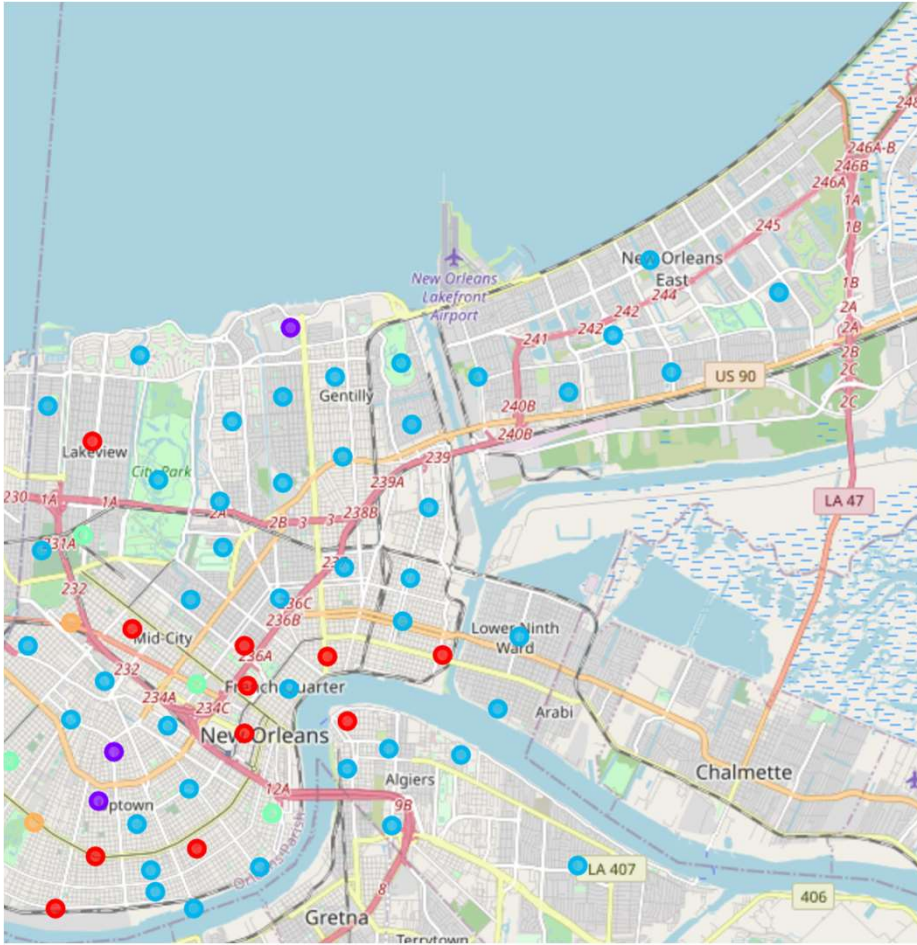
- Created a map of New Orleans showing each neighborhood
- Used Foursquare to find venues and venue categories in each neighborhood
- Apply 'onehotencoding' to the yoga studio and beverage venues
- Showed how many yoga studios and beverage venues in each neighborhood.
- K-Means clustered the neighborhoods, showed clusters on map
- Presented plots showing which clusters and neighborhoods have both yoga studios and beverage venues
- Used these plots to determine which neighborhood has the highest number of yoga studios per beverage venue.
- This neighborhood may be a candidate for the Client's tea house.

Total (5) K-Means clusters determined

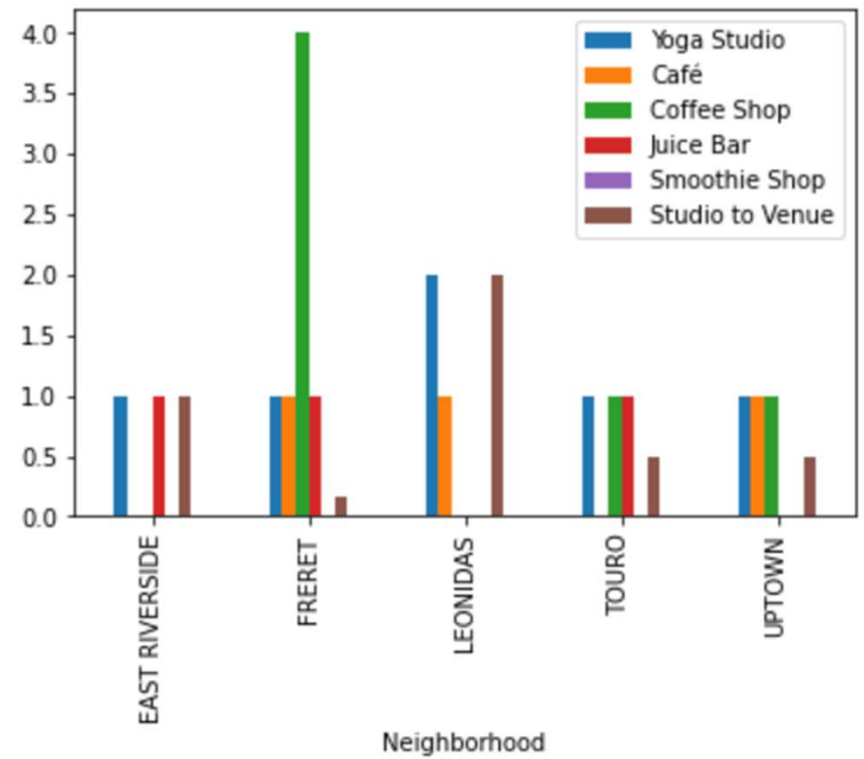
- Cluster 0 – Red
- Cluster 1 - Purple
- Cluster 2 – Blue
- Cluster 3 - Green
- Cluster 4 – Orange

	Cluster Labels	Yoga Studio	Café	Coffee Shop	Juice Bar	Smoothie Shop
0	0	1	9	22	2	1
1	1	1	1	6	1	0
2	2	4	4	3	2	0
3	3	0	9	7	0	0
4	4	0	0	1	0	2





	Neighborhood	Yoga Studio	Café	Coffee Shop	Juice Bar	Smoothie Shop	Studio to Venue
14	EAST RIVERSIDE	1	0	0	1	0	1.00
20	FRERET	1	1	4	1	0	0.17
34	LEONIDAS	2	1	0	0	0	2.00
58	TOURO	1	0	1	1	0	0.50
62	UPTOWN	1	1	1	0	0	0.50



Summary and Conclusions

- The project Client wishes to open a specific type of tea shop in New Orleans that will provide traditional teas in a space which promotes and supports social communities interested in mind and body wellness.
- Determined which neighborhoods contained yoga studios and how many beverage venues were in each
- Only (6) yoga studios in New Orleans at present and (2) of those studios are in the Leonidas
- The ratio of studios to venues is also highest in Leonidas suggesting the Client's tea house would have less competition there.
- Additional work should be done to determine proximity of the (2) yoga studios in Leonidas
- Situate the Clients tea house equidistant to each other
- This could mean being able to serve both yoga studios, thus positively increasing community wellbeing and impact even more, along with potentially even greater increases to the Client's business revenues.