

Final IBM Capstone Project

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1. Introduction

Scenario:

On March 17th, 2020, former New England Patriot QB Tom Brady decided to agree to a deal with the Tampa Bay Buccaneers. As a lifelong Bucs fan, this is the greatest moment in my fandom since their Super Bowl 37 victory over the Oakland Raiders. It is time to make the move to Tampa Bay to capitalize on the next 3-year dynasty in the NFL. My goal is to open a new sports bar called "Tampa Tommy's." This is where all the die-hard Bucs fans will come to cheer on the home team in pursuit of another Super Bowl this century.

Problem:

I have not lived in Tampa, Florida since I was a 1 year old, and I have no clue where all the existing establishments are. My goal is to have a sports bar close to Raymond James Stadium so that when fans cannot afford tickets, they can still tailgate at the stadium and then come over to Tampa Tommy's for the actual game.

Goal:

To find the perfect location for Tampa Tommy's so that it is a thriving business before the team becomes mediocre again.

2. Data

The data we will be using is listed below.

We want to find the venues around Raymond James Stadium, cluster them, and determine which block is the best place to try and startup a new restaurant.

Foursquare add geopy data will be used to look up these venues.

We will then cluster the data we collect to determine which area would be the best place to start Tampa Tommy's

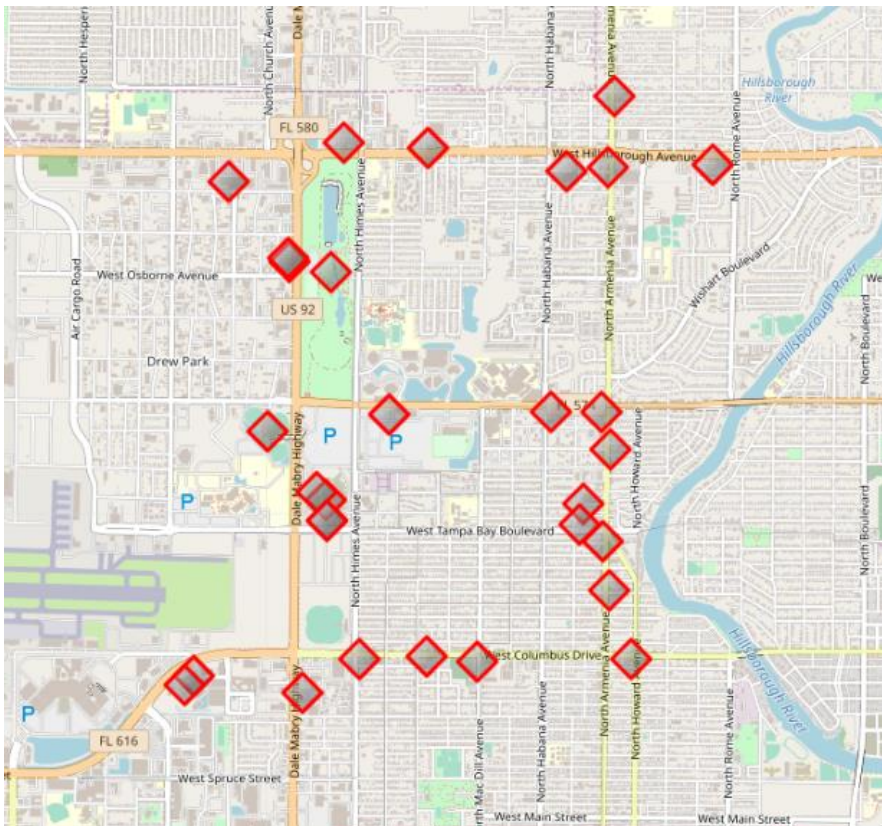
Once the cluster is determined, we will look up rental properties in the area to determine where Tampa Tommy's will be located permanently.

To look at the code, follow this link:

https://dataplatform.cloud.ibm.com/analytics/notebooks/v2/32e68c1f-9fe4-40b1-8848-f3b7e50e99a5/view?access_token=1ae89d8f8313868a40c212e532d32caffaf1974527541ff0f6602ed065eb7ef0

Out[9]:

	name	categories	lat	lng
0	Happy Fish Seafood Restaurant	Spanish Restaurant	27.975567	-82.486323
1	Raymond James Stadium	Football Stadium	27.975832	-82.503355
2	Starbucks	Coffee Shop	27.981005	-82.488442
3	Al Lopez Park	Park	27.989207	-82.503020
4	Raymond James Stadium Luxury Suite	Football Stadium	27.976280	-82.503938
5	Panera Bread	Bakery	27.980857	-82.499157
6	West Tampa Sandwich Shop	Cuban Restaurant	27.973415	-82.485005
7	Montauro Restaurante	Italian Restaurant	27.974365	-82.486587
8	George M Steinbrenner Field	Baseball Stadium	27.979863	-82.507246
9	Bucs Pirate Ship	Football Stadium	27.974618	-82.503288
10	La Teresita	Cuban Restaurant	27.966623	-82.496654
11	7-Eleven	Convenience Store	27.980971	-82.485078
12	Pop & Sons Diner	Diner	27.989751	-82.505785
13	Mom's Place Diner	Diner	27.990032	-82.505828
14	Raymond James Stadium East Club	Athletics & Sports	27.974615	-82.503319
15	Holy Hog BBQ	BBQ Joint	27.970557	-82.484586
16	La Cabana Restaurant	Latin American Restaurant	27.995316	-82.484623
17	Chick-fil-A	Fast Food Restaurant	27.964560	-82.504934
18	Taqueria Mi Mexico	Mexican Restaurant	27.978775	-82.484533
19	Pollo Tropical	Latin American Restaurant	27.996440	-82.496560
20	La Casona	Caribbean Restaurant	27.999455	-82.484264
21	Antojito's Latin Cravings	Latin American Restaurant	27.966480	-82.483119
22	Taqueria Emanuel	Mexican Restaurant	27.966392	-82.493343
23	Guitar Center	Music Store	27.994456	-82.509786
24	Origami Sushi	Sushi Restaurant	27.996767	-82.502190
25	Cooper's Hawk	American Restaurant	27.965506	-82.512170
26	Wawa	Convenience Store	27.995434	-82.477705
27	7-Eleven	Convenience Store	27.966535	-82.501147
28	Texas de Brazil	Brazilian Restaurant	27.965028	-82.512737
29	Publix	Grocery Store	27.995055	-82.487377



3. Methodology

The goal of this section is to cluster the data collected above, and then determine which cluster area we will look for rental property for Tampa Tommy's.

Out[9]:

	name	categories	lat	lng
0	Happy Fish Seafood Restaurant	Spanish Restaurant	27.975567	-82.486323
1	Raymond James Stadium	Football Stadium	27.975832	-82.503355
2	Starbucks	Coffee Shop	27.981005	-82.488442
3	Al Lopez Park	Park	27.989207	-82.503020
4	Raymond James Stadium Luxury Suite	Football Stadium	27.976280	-82.503938
5	Panera Bread	Bakery	27.980857	-82.499157
6	West Tampa Sandwich Shop	Cuban Restaurant	27.973415	-82.485005
7	Montauro Restaurante	Italian Restaurant	27.974365	-82.486587
8	George M Steinbrenner Field	Baseball Stadium	27.979863	-82.507246
9	Bucs Pirate Ship	Football Stadium	27.974618	-82.503288
10	La Teresita	Cuban Restaurant	27.966623	-82.496654
11	7-Eleven	Convenience Store	27.980971	-82.485078
12	Pop & Sons Diner	Diner	27.989751	-82.505785
13	Mom's Place Diner	Diner	27.990032	-82.505828
14	Raymond James Stadium East Club	Athletics & Sports	27.974615	-82.503319
15	Holy Hog BBQ	BBQ Joint	27.970557	-82.484586
16	La Cabana Restaurant	Latin American Restaurant	27.995316	-82.484623
17	Chick-fil-A	Fast Food Restaurant	27.964560	-82.504934
18	Taqueria Mi Mexico	Mexican Restaurant	27.978775	-82.484533
19	Pollo Tropical	Latin American Restaurant	27.996440	-82.496560
20	La Casona	Caribbean Restaurant	27.999455	-82.484264
21	Antojito's Latin Cravings	Latin American Restaurant	27.966480	-82.483119
22	Taqueria Emanuel	Mexican Restaurant	27.966392	-82.493343
23	Guitar Center	Music Store	27.994456	-82.509786
24	Origami Sushi	Sushi Restaurant	27.996767	-82.502190
25	Cooper's Hawk	American Restaurant	27.965506	-82.512170
26	Wawa	Convenience Store	27.995434	-82.477705
27	7-Eleven	Convenience Store	27.966535	-82.501147
28	Texas de Brazil	Brazilian Restaurant	27.965028	-82.512737
29	Publix	Grocery Store	27.995055	-82.487377

We are going to assign clusters to each of the venues we retrieved from our Foursquare API:

Cluster 1 - Restaurants that could have the capabilities of hosting gameday parties

Cluster 2 - Restaurants that could not have the capabilities of hosting gameday parties

Cluster 3 - Venues that are not restaurants

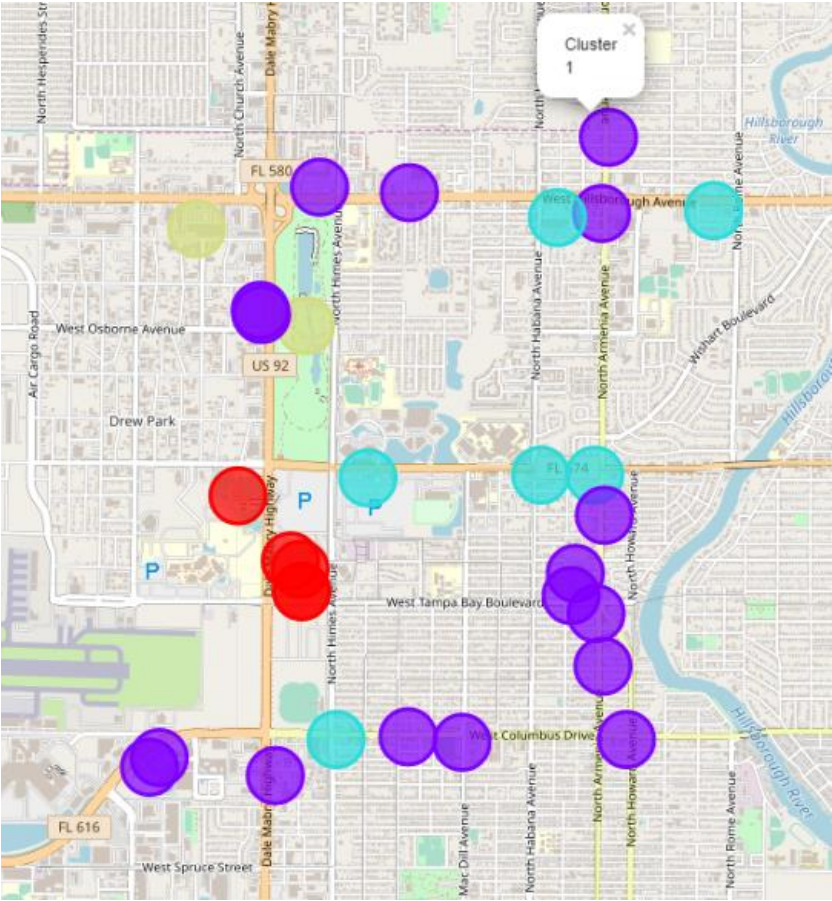
Cluster 4 - Stadiums in the area (including Raymond James Stadium)

To look at the code, follow this link:

https://dataplatform.cloud.ibm.com/analytics/notebooks/v2/32e68c1f-9fe4-40b1-8848-f3b7e50e99a5/view?access_token=1ae89d8f8313868a40c212e532d32caffaf1974527541ff0f6602ed065eb7ef0

Out[31]:

	name	categories	lat	lng	Cluster
0	Happy Fish Seafood Restaurant	Spanish Restaurant	27.975567	-82.486323	1
1	Raymond James Stadium	Football Stadium	27.975832	-82.503355	4
2	Starbucks	Coffee Shop	27.981005	-82.488442	2
3	Al Lopez Park	Park	27.989207	-82.503020	3
4	Raymond James Stadium Luxury Suite	Football Stadium	27.976280	-82.503938	4
5	Panera Bread	Bakery	27.980857	-82.499157	2
6	West Tampa Sandwich Shop	Cuban Restaurant	27.973415	-82.485005	1
7	Montauro Restaurante	Italian Restaurant	27.974365	-82.486587	1
8	George M Steinbrenner Field	Baseball Stadium	27.979863	-82.507246	4
9	Bucs Pirate Ship	Football Stadium	27.974618	-82.503288	4
10	La Teresita	Cuban Restaurant	27.966623	-82.496654	1
11	7-Eleven	Convenience Store	27.980971	-82.485078	2
12	Pop & Sons Diner	Diner	27.989751	-82.505785	1
13	Mom's Place Diner	Diner	27.990032	-82.505828	1
14	Raymond James Stadium East Club	Athletics & Sports	27.974615	-82.503319	4
15	Holy Hog BBQ	BBQ Joint	27.970557	-82.484586	1
16	La Cabana Restaurant	Latin American Restaurant	27.995316	-82.484623	1
17	Chick-fil-A	Fast Food Restaurant	27.964560	-82.504934	1
18	Taqueria Mi Mexico	Mexican Restaurant	27.978775	-82.484533	1
19	Pollo Tropical	Latin American Restaurant	27.996440	-82.496560	1
20	La Casona	Caribbean Restaurant	27.999455	-82.484264	1
21	Antojito's Latin Cravings	Latin American Restaurant	27.966480	-82.483119	1
22	Taqueria Emanuel	Mexican Restaurant	27.966392	-82.493343	1
23	Guitar Center	Music Store	27.994456	-82.509786	3
24	Origami Sushi	Sushi Restaurant	27.996767	-82.502190	1
25	Cooper's Hawk	American Restaurant	27.965506	-82.512170	1
26	Wawa	Convenience Store	27.995434	-82.477705	2
27	7-Eleven	Convenience Store	27.966535	-82.501147	2
28	Texas de Brazil	Brazilian Restaurant	27.965028	-82.512737	1
29	Publix	Grocery Store	27.995055	-82.487377	2



This map allows us to determine which areas around Raymond James Stadium lacks restaurants capable of hosting gameday parties.

Upon further review, it looks to me that West Dr. Martin Luther King Jr. Boulevard is the area around the stadium that is lacking cluster 1 venues the most.

Based on these results, I completed a search of properties available for rent on this road to see if there are any viable options to open up Tampa Tommy's. We found that '2700 W DR MARTIN LUTHER KING JR BLVD' was available for \$4,600 a month, which falls within my price range.

2700 W DR MARTIN LUTHER KING JR BLVD - OFFICE FOR RENT

Tampa, FL 33607 - Stadium Area | 2,401-9,000 SF

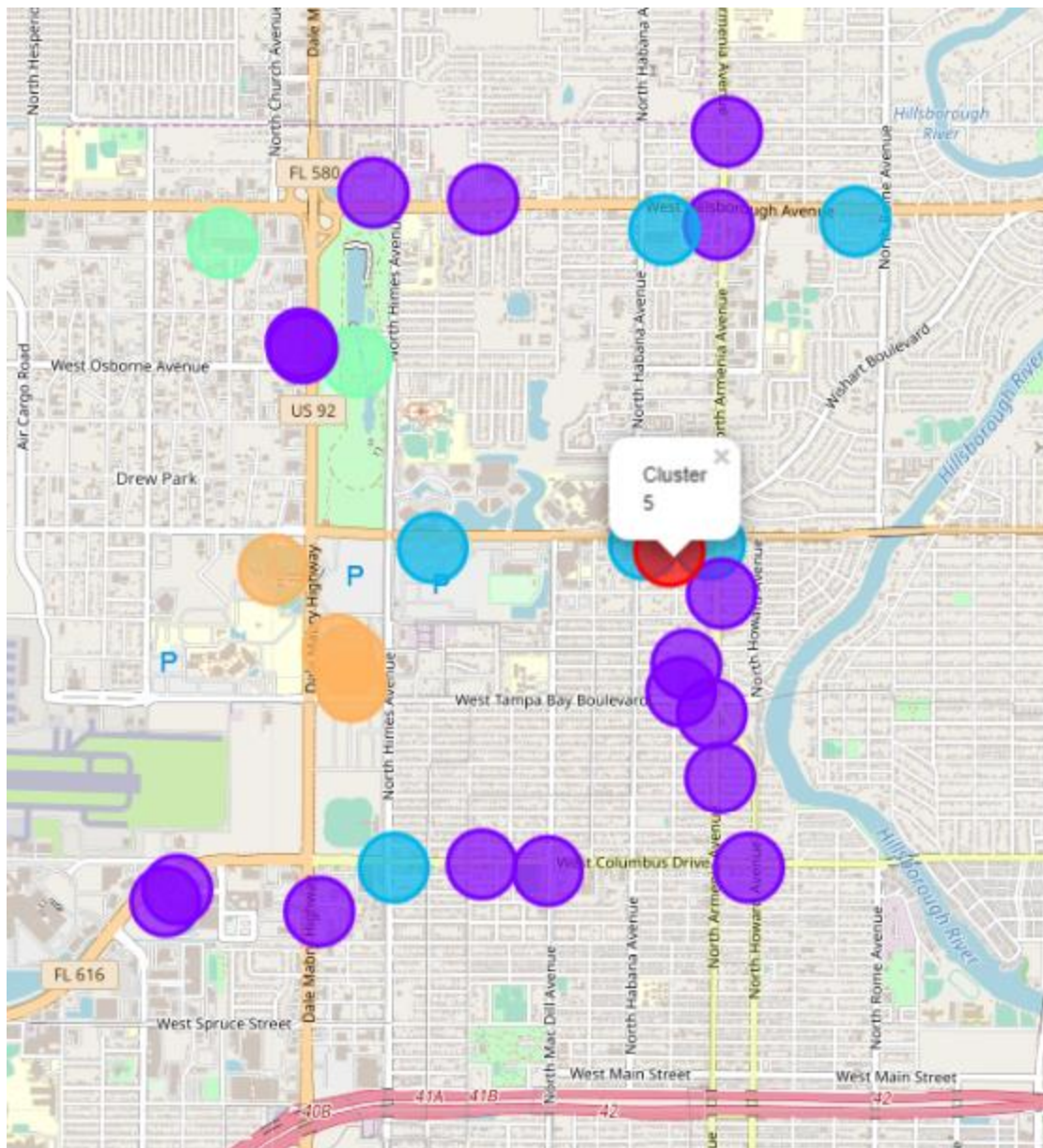
\$4,602*/mo



We will finally add Tampa Tommy's to the cluster map.

Out[44]:

	name	categories	lat	lng	Cluster
0	Happy Fish Seafood Restaurant	Spanish Restaurant	27.975567	-82.486323	1
1	Raymond James Stadium	Football Stadium	27.975832	-82.503355	4
2	Starbucks	Coffee Shop	27.981005	-82.488442	2
3	Al Lopez Park	Park	27.989207	-82.503020	3
4	Raymond James Stadium Luxury Suite	Football Stadium	27.976280	-82.503938	4
5	Panera Bread	Bakery	27.980857	-82.499157	2
6	West Tampa Sandwich Shop	Cuban Restaurant	27.973415	-82.485005	1
7	Montauro Restaurante	Italian Restaurant	27.974365	-82.486587	1
8	George M Steinbrenner Field	Baseball Stadium	27.979863	-82.507246	4
9	Bucs Pirate Ship	Football Stadium	27.974618	-82.503288	4
10	La Teresita	Cuban Restaurant	27.966623	-82.496654	1
11	7-Eleven	Convenience Store	27.980971	-82.485078	2
12	Pop & Sons Diner	Diner	27.989751	-82.505785	1
13	Mom's Place Diner	Diner	27.990032	-82.505828	1
14	Raymond James Stadium East Club	Athletics & Sports	27.974615	-82.503319	4
15	Holy Hog BBQ	BBQ Joint	27.970557	-82.484586	1
16	La Cabana Restaurant	Latin American Restaurant	27.995316	-82.484623	1
17	Chick-fil-A	Fast Food Restaurant	27.964560	-82.504934	1
18	Taqueria Mi Mexico	Mexican Restaurant	27.978775	-82.484533	1
19	Pollo Tropical	Latin American Restaurant	27.996440	-82.496560	1
20	La Casona	Caribbean Restaurant	27.999455	-82.484264	1
21	Antojito's Latin Cravings	Latin American Restaurant	27.966480	-82.483119	1
22	Taqueria Emanuel	Mexican Restaurant	27.966392	-82.493343	1
23	Guitar Center	Music Store	27.994456	-82.509786	3
24	Origami Sushi	Sushi Restaurant	27.996767	-82.502190	1
25	Cooper's Hawk	American Restaurant	27.965506	-82.512170	1
26	Wawa	Convenience Store	27.995434	-82.477705	2
27	7-Eleven	Convenience Store	27.966535	-82.501147	2
28	Texas de Brazil	Brazilian Restaurant	27.965028	-82.512737	1
29	Publix	Grocery Store	27.995055	-82.487377	2
30	Tampa Tommys	American Restaurant	27.980660	-82.487180	5



4. Results

- We found 4 different clusters based on the list we retrieved from Foursquare API
- W DR MARTIN LUTHER KING JR BLVD was determined to be the best place to open up Tampa Tommy's due to the lack of restaurants currently open on this street, which is located near Raymond James Stadium
- There were not many options available for rent online, but we ended up going with a property located at 2700 W DR MARTIN LUTHER KING JR BLVD
- A final map with Tampa Tommy's (Cluster 5 in red) was generated

5. Discussion

Transportation

Unfortunately, there were not any properties located near the stadium to rent, so once this business is up and running, we will have to provide a shuttle service from the tailgating lots to the restaurant. This will allow us to get rowdy fans into Tampa Tommy's to rake up the alcohol earnings for gamedays.

Lack of Bars Near Raymond James Stadium

The biggest surprise to me while conducting this research was the lack of american bars in the area. Of the 30 results we got from Foursquare, only 1 returned in the category "American Restaurant." Fans not having a spot to go and watch the game after they are done tailgating strikes me as a major issue and an open opportunity for someone to make a good business decision.

Alternate Strategy for Next Time

If I were to do this study again, I would most likely expand my search to a wider radius and see if different parts of the city are better suited for an establishment like this. We could expand the search to all of the city districts and not just around the stadium.

6. Conclusion

To conclude, the choice to start Tampa Tommy's at 2700 W DR MARTIN LUTHER KING JR BLVD came down to 3 things:

- Lack of restaurant options in the area
- Lack of available rental properties in the area
- Location was near the stadium

Let's Go Bucs!!!!

To look at the code, follow this link:

https://dataplatform.cloud.ibm.com/analytics/notebooks/v2/32e68c1f-9fe4-40b1-8848-f3b7e50e99a5/view?access_token=1ae89d8f8313868a40c212e532d32caffaf1974527541ff0f6602ed065eb7ef0