



# COURSERA CAPSTONE PROJECT

The Battle of Neighbourhoods

# BACKGROUND

- I am an IT Engineer and was working in Maryland. But I recently got married
- and must move to Miami, Florida. I want to I used to live in Owings Mills, Maryland
- with walking distance to the Grand Junction Metro Station with great connectivity
- to Baltimore Downtown as well as Washington, D.C., all shopping stores, groceries
- and pharmacy was nearby to my apartment.
- But since I am moving to Florida I want to use the skills learned during IBM Data
- Science Specialization course to help me find a suitable apartment that meets the
- price range along with good locality which should be connected easily to public
- transport such as metros and buses and have groceries stores and good
- restaurants nearby.



# BUSINESS PROBLEM

- The challenge is to find a suitable apartment for rent in Miami, Florida that meets with the demands of appropriate location, price and venues

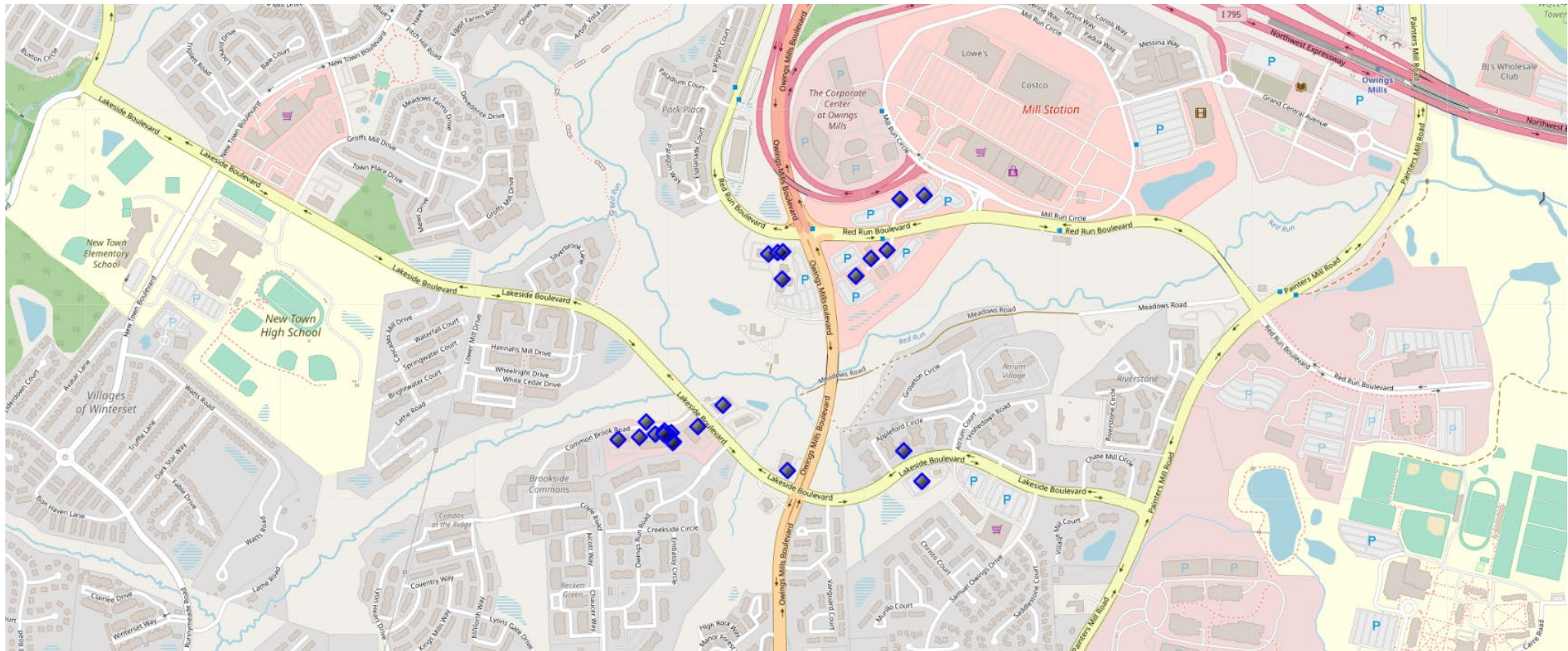


# PROJECT GOAL

- This information will be helpful for someone moving to a new city
- Will help them to find a good apartment, as the basic questions for renting a reasonable
- Will also help individuals interested in exploring coffee shops and restaurants in any city.
- It is serving the purpose of helping me improve my Data Science skills as I can apply in this project.



# COMPARISON WITH PRESENT LOCATION

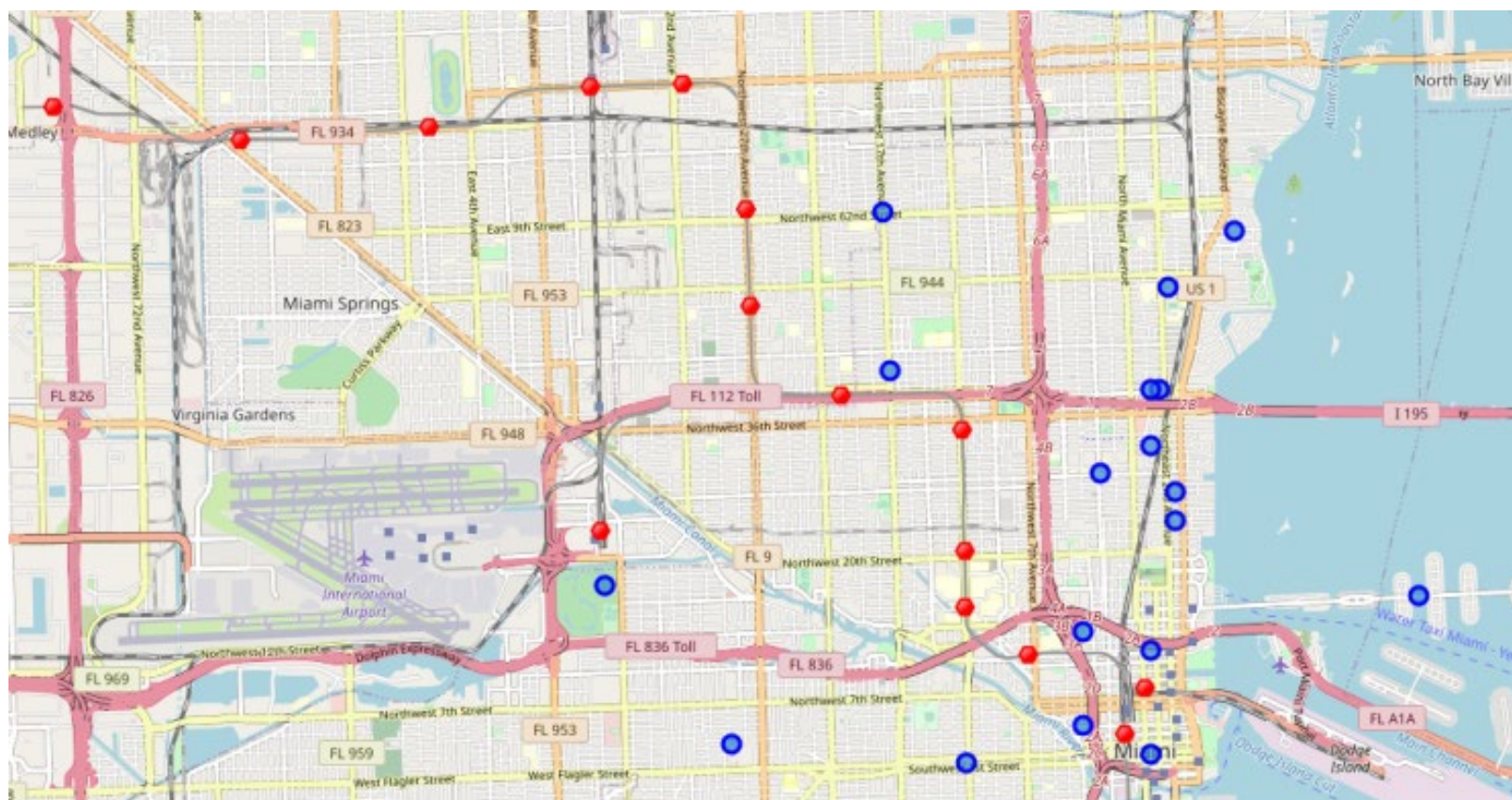


	name	categories	lat	lng
0	Asian Kitchen	Asian Restaurant	39.399578	-76.799104
1	Artful Gourmet Bistro	New American Restaurant	39.399300	-76.801364
2	Taj Palace Owings Mills	North Indian Restaurant	39.399413	-76.800307
3	Red Robin Gourmet Burgers and Brews	Burger Joint	39.403242	-76.794221
4	Yuki Sushi	Sushi Restaurant	39.399449	-76.799871
5	Olive Garden	Italian Restaurant	39.404531	-76.793403
6	The Greene Turtle	Sports Bar	39.402854	-76.794645
7	Dunkin'	Donut Shop	39.399244	-76.799790
8	Baskin-Robbins	Ice Cream Shop	39.399234	-76.799813
9	Red Lobster	Seafood Restaurant	39.404619	-76.792716

# METHODOLOGY

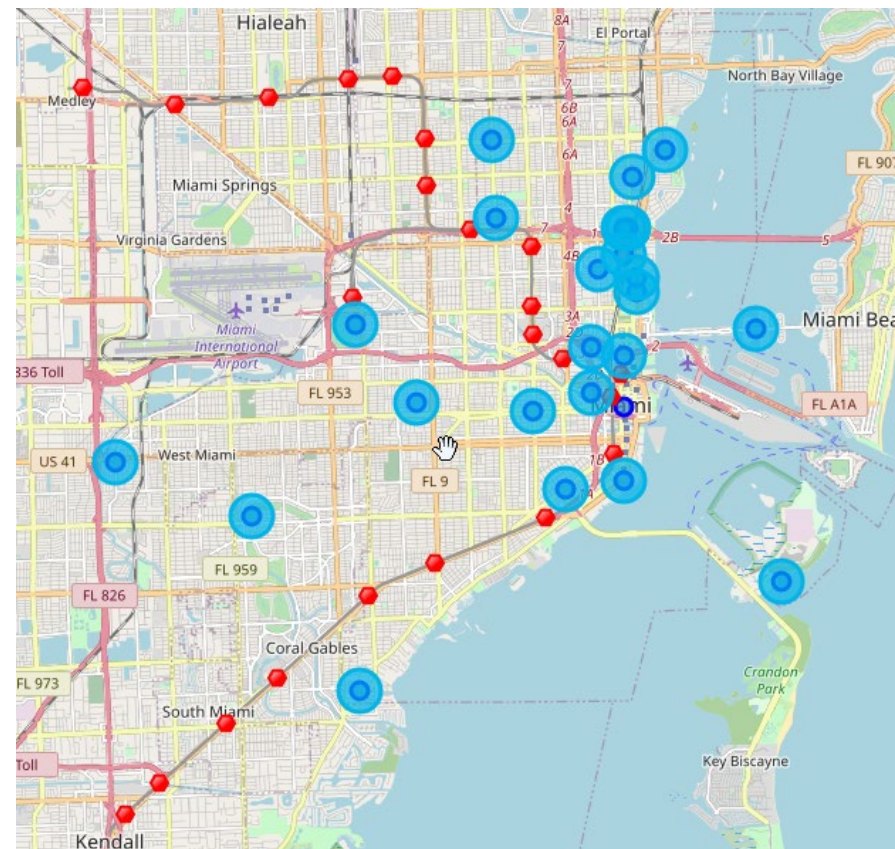
- This section represents the main component of the report where the data is gathered, prepared for analysis.
- The tools described are used here and the Notebook cells indicate the execution of steps.
- The analysis and the strategy:
- The strategy is based on mapping the above described data in section 2.0, in order to facilitate the choice of at least two candidate places for rent. The choice is made based on the demands imposed: location near a subway, rental price and similar venues to Southbank. This visual approach and maps with pop-up labels allow quick identification of location, price and feature, thus making the selection very easy.







# RESULTS



```

: kk = 2
miami_merged.loc[miami_merged['Cluster Labels'] == kk, miami_merged.columns[[1] + list(range(5, miami_merged.shape[1]))]]

```

	County	Cluster Labels	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
4	Miami	2.0	Park	American Restaurant	Boat or Ferry	Event Space	Food Truck	Food	Flea Market	Fish Market	Fast Food Restaurant	Wings Joint
20	Miami	2.0	Park	Lounge	Boat or Ferry	Empanada Restaurant	Food	Flea Market	Fish Market	Fast Food Restaurant	Event Space	Wings Joint

## Apartment 1 Locations

```

: ## kk is the cluster number to explore
kk = 3
miami_merged.loc[miami_merged['Cluster Labels'] == kk, miami_merged.columns[[1] + list(range(5, miami_merged.shape[1]))]]

```

	County	Cluster Labels	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
21	Miami	3.0	Beach	Wings Joint	French Restaurant	Dessert Shop	Diner	Discount Store	Dive Bar	Dog Run	Donut Shop	Empanada Restaurant

## Apartment 2 Locations



# DISCUSSION

- The apartment in blue dot 113 Greenwich way is the best location in terms of rent, transportation and venue. Based on current Maryland venues, I feel that Cluster 3 type of venues is a closer resemblance to my current place. That means that APARTMENT is a better choice and cheaper which means I can use it for other expenses.
- The complete Specialization Course is well structured with enough on hand lab work and assignments and helps to give insights to concepts learned during classes. It helped me to learn various tools and provided me with great knowledge.



# CONCLUSION

- I am very happy to be able to complete the course specialization on time and it was worth the time spent.
- It has provided with various skills and tools that will help to grow and build a career in Data Science.