

# Find the Best Location for Opening a New Restaurant

IBMAPPLIED DATA SCIENCE CAPSTONE



# Starting a New Restaurant in Santa Monica

- Coming down to business problem,I would like to open a restaurant near Santa Monica, which is one of the most beautiful cities in Los Angeles.
- I know there will be many competitors in terms of restauramt.
- I need to locate my restaurant in place where more people are attracted and comfortable for a stay and a good meal.
- I want to bring foreign and local peoples attention towards my new hotel.
- I would like to flavour my retaurant recipe with Chinese and Japanese to grab their taste.

# Assumption

- The challenge is to find a suitable location for opening a new restaurant attracted to all local and foreign people in the centre of all famous venues.
- I assume that 85% local and 15% foreign peoples visit Santa Monica once in a year. Some people stay for couple of days or more. Also they find some place for hangout or a good meal. Their main focus might be belonging to stay somewhere near to reach venues. Apart from these set of people, students and working professionals are common audience here. So we may need to fascinate them all.



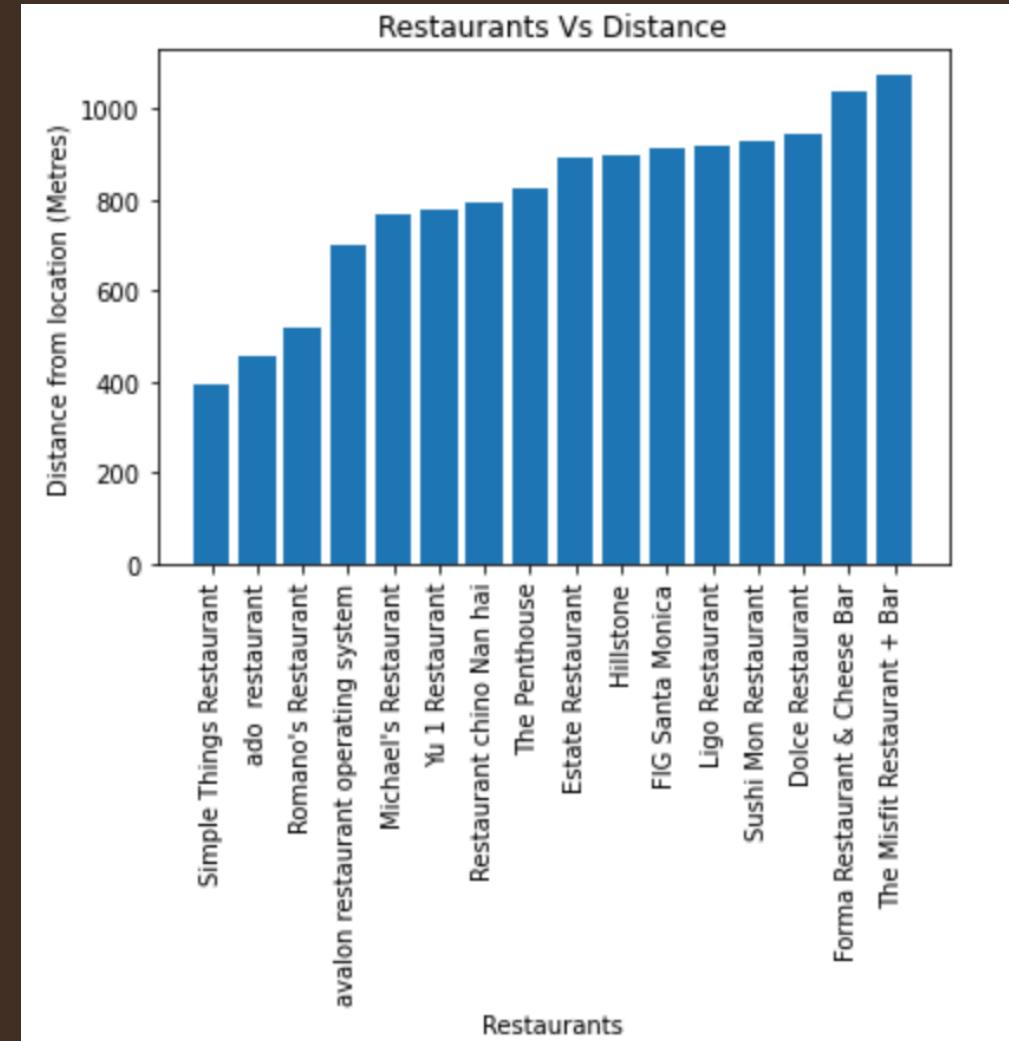
# Data Selection

- We will be completely working on Foursquare data to explore and try to locate our new restaurant where more venues like Hotel, Spa, beach, Theater, memorials that are present nearby.
- We will look for midpoint area of venues to locate our new restaurant. Before that our major focus will be on all venues present in and around the core place of Santa Monica.
- The core location of Santa Monica: 34.0250724,-118.4965129.

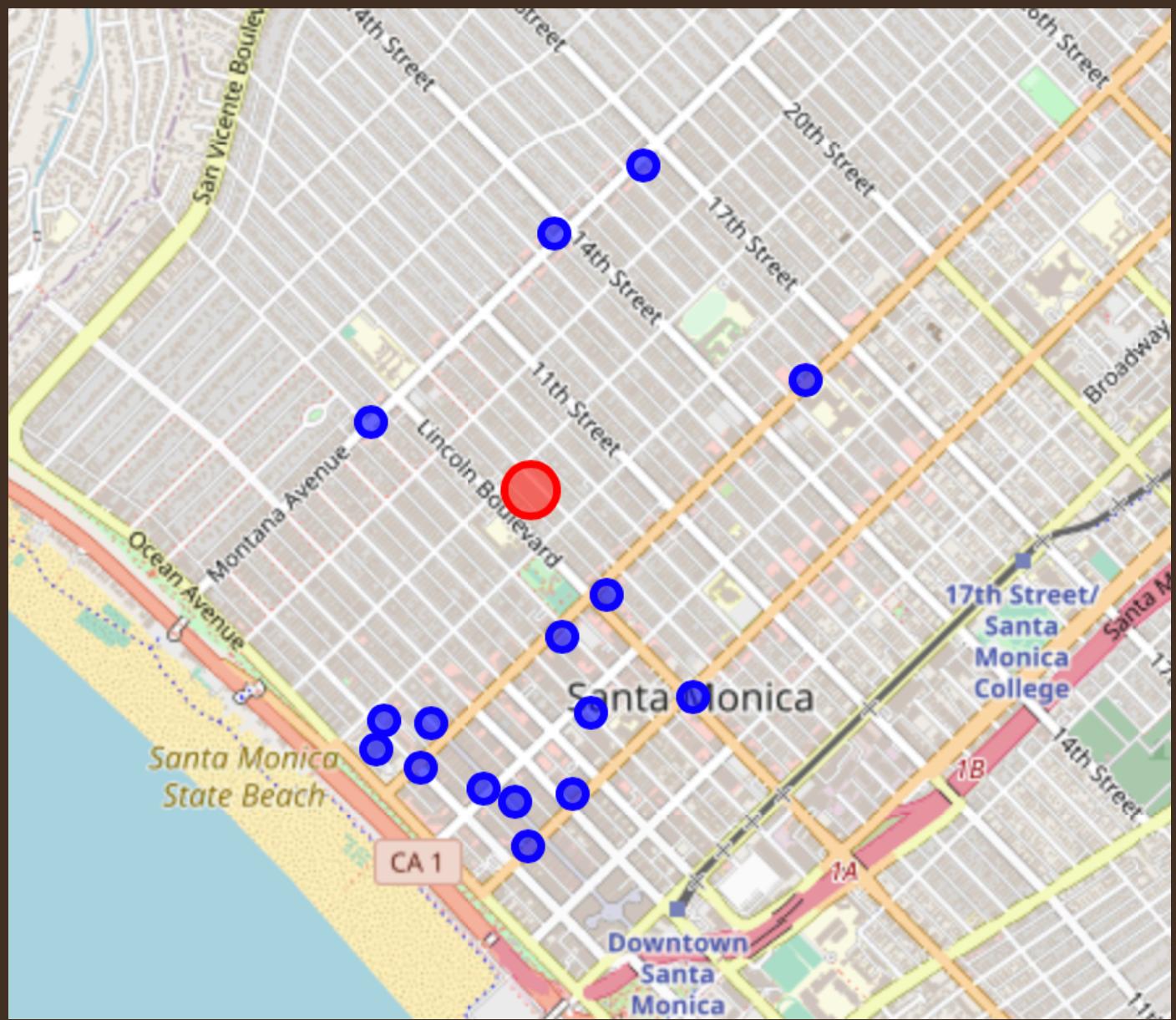


# Data Preprocessing

- There are 16 restaurants at Santa Monica within 1km from the core location;
- Simple Things Restaurant has the closest distance to the core location of Santa Monica;
- The Misfit Restaurant + Bar is the farthest among all restaurants;
- The average distance between restaurants and core location is 802 meters.

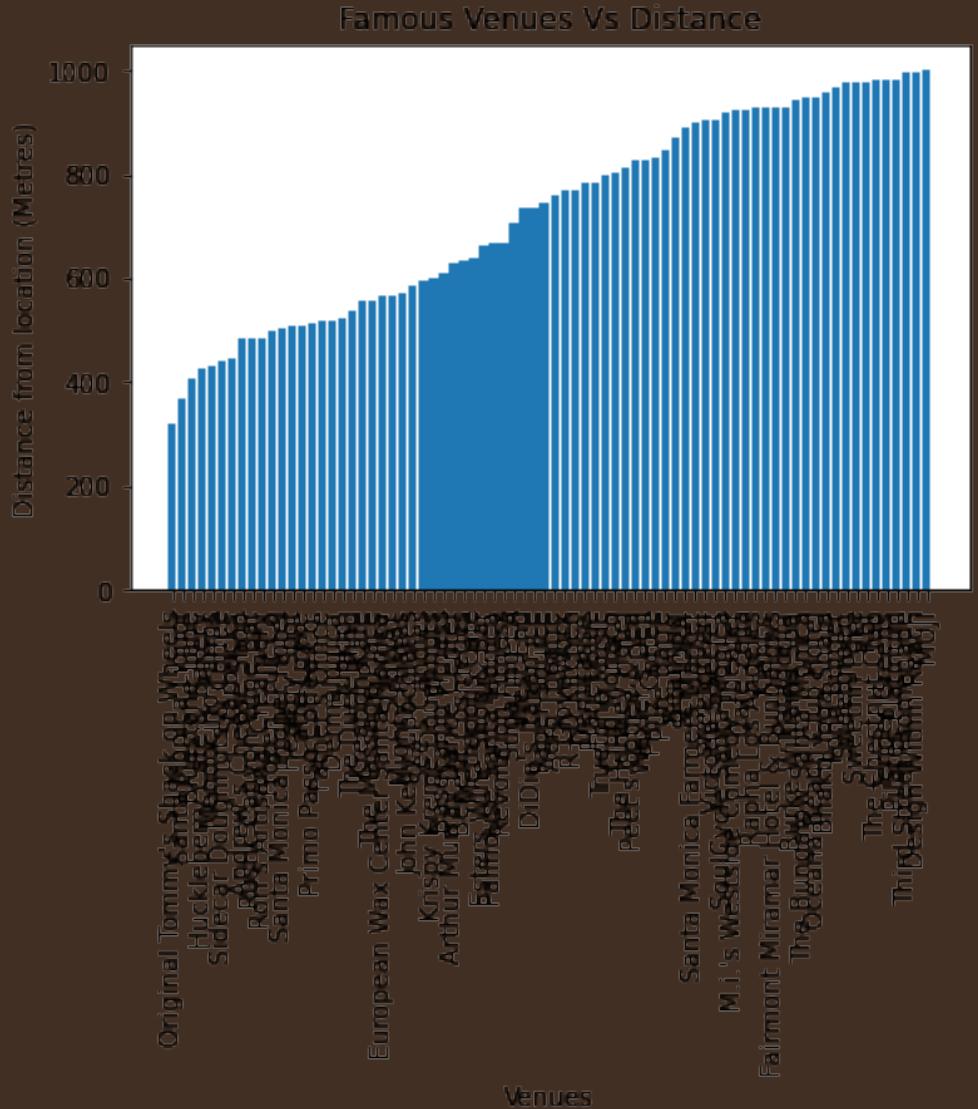


# Map of Showing the Location of Existing Restaurant

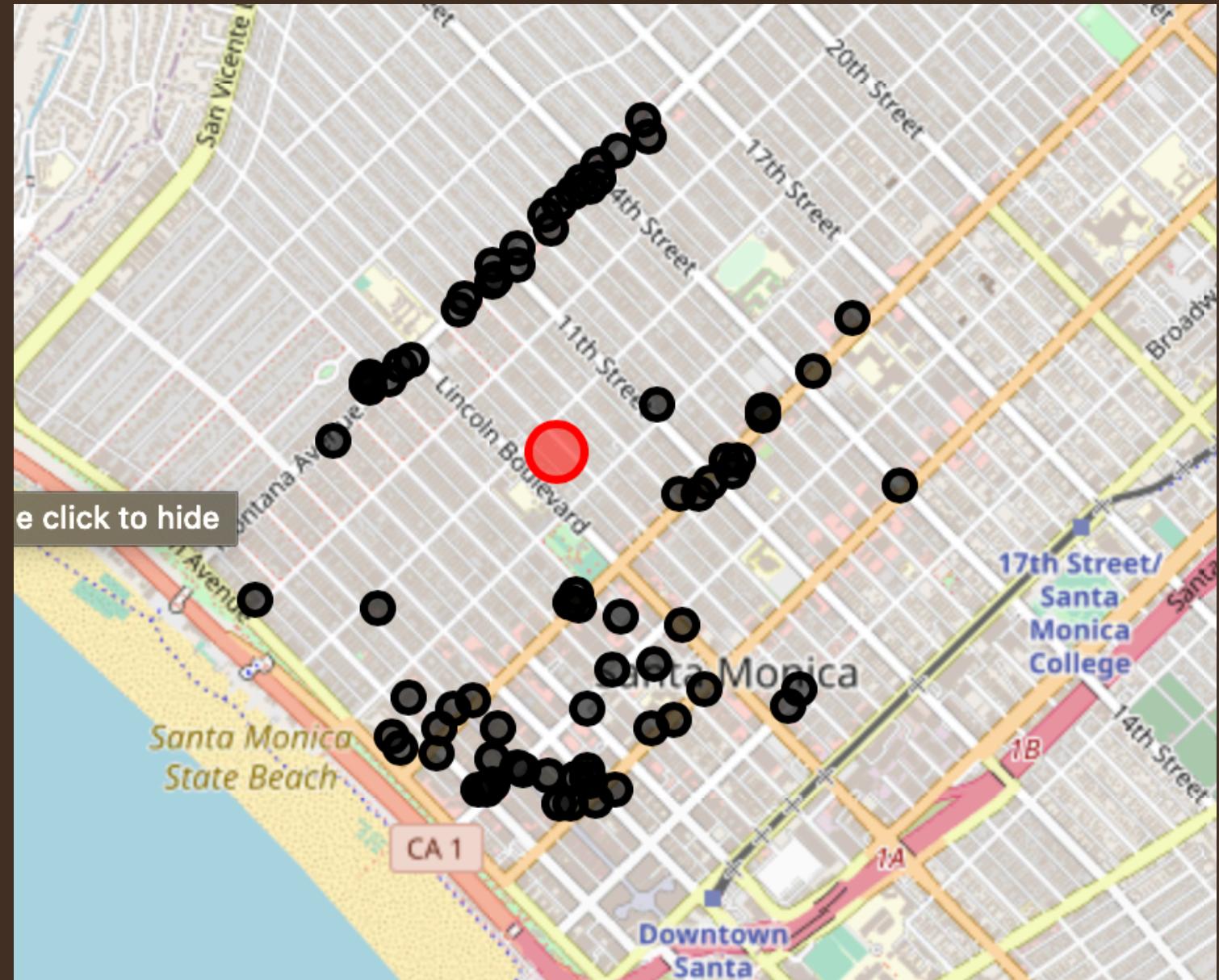


# Explore for other venues around Santa Monica

- There are 76 venues in Santa Monica;
  - From the plot, we can see that most of the venues are located between 500 to 700 meters from the core location of Santa Monica



# Map of Showing the Location of Venues

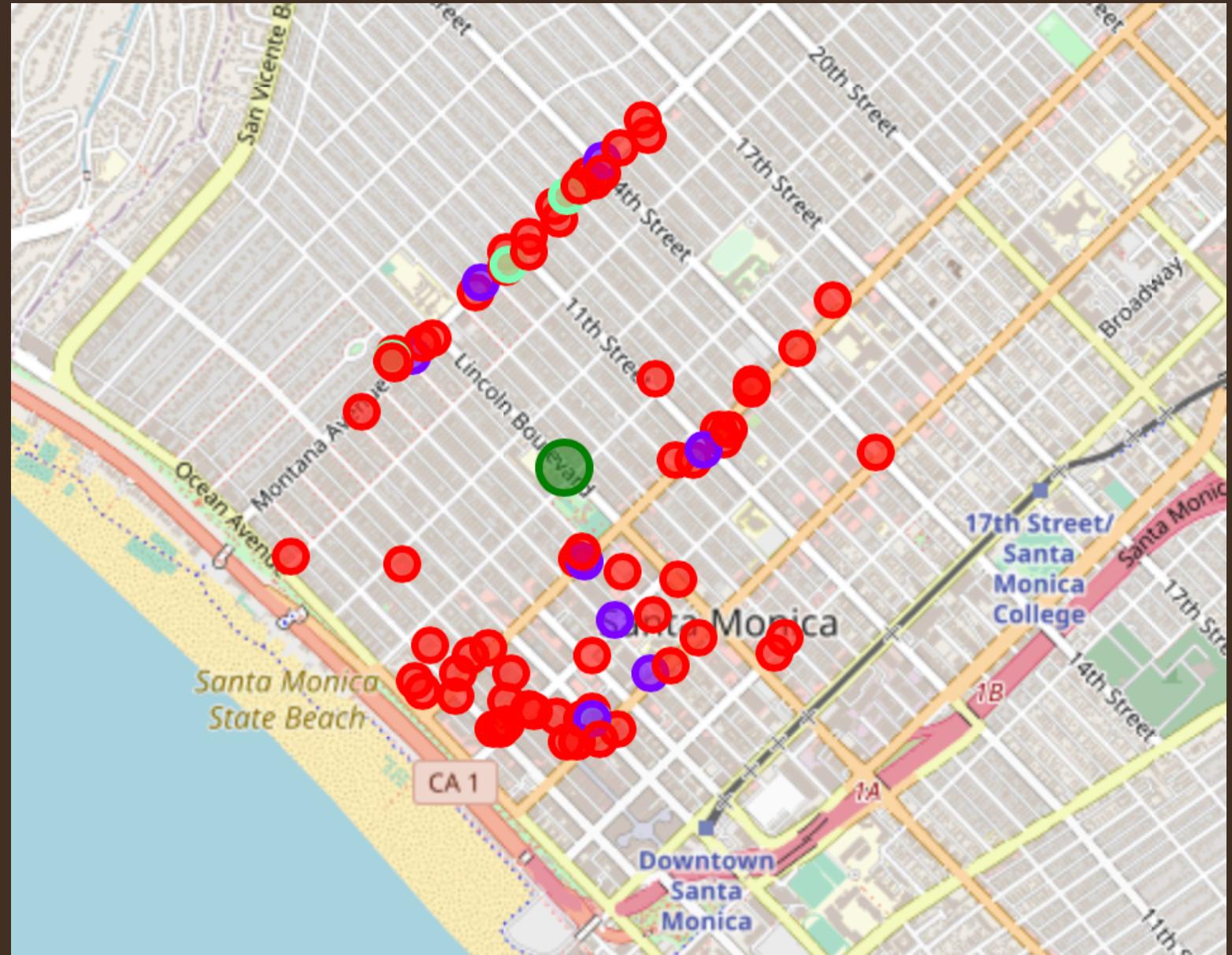


# Clustering and Midpoint of venues

- First we will find the clusters and based on it, we will take average of all centroids.
- Secondly, we will get midpoint of all shortlisted venues.
- We will get mean of both and decide our final location
- We looked for three clusters and they were sorted out as shown in map.



# Clustered Map



# Discussion

- Although there are a lot of competition between each restaurant in Santa Monica, KMeans have figured out the most common place for all the venues.
- This output was very adjacent to the core location. This proves the accurate spotting of our predicted algorithm.
- The aim of the restaurant is to provide the best experience to its customers; therefore, in this final location, customers can reach each famous and popular venues in Santa Monica very convenient.
- I believe that the location will bring a huge success to the new restaurant.

# Conclusion

- My restaurant location Final location is pointed at 34.023760677337236,-118.49650183994382.
- The final location for the new restaurant can give easy access for our customers to all tourist in Santa Monica. Located at between the school and memorial playhouse which can give more attention to people who pass by.
- As a businessman, one would be able to set up a restaurant on given spot. This will bring revenue automatically as we have located in very near to core one. We proved this with Kmeans.