Find a location to open a healthy restaurant in Chicago
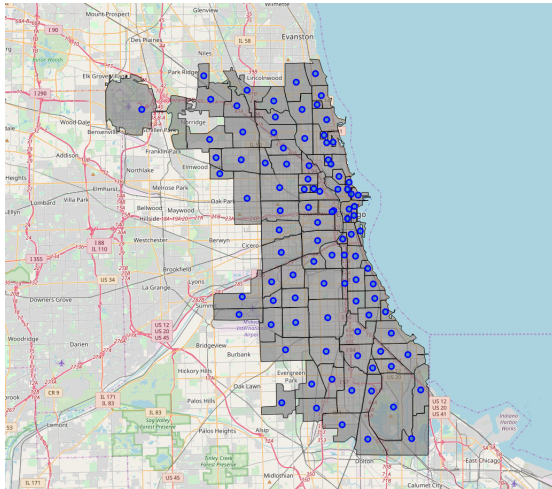
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Opening a new restaurant

- Health care places have much more attendance than past years.

- People don't use to have time to prepare proper food.

- Healthy food restaurant should be a very good option of business

- Chicago is a big city: how we find the best location? $\rightarrow$ Data science.
    - Target is people who cares about their health.
    - We need a place with high number of gyms nearby.
    - One neighborhood can be an small area to find a location $\rightarrow$ Clusters.

Data sources and cleaning
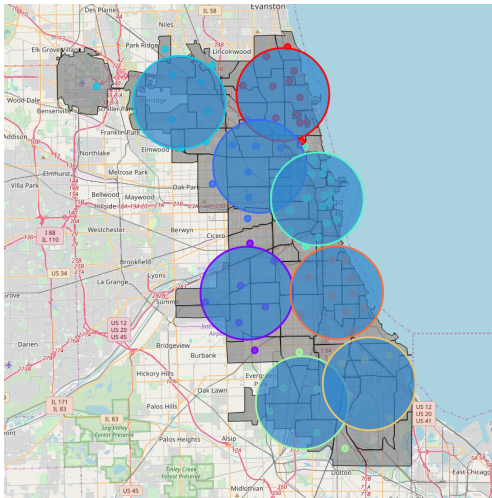
- Chicago Data Portal is a good place to look for info about the city.
    - Geographical delimitation of neighborhoods.
    - Centroid of each neighborhood area was calculated.

- Foursquare provide the location of venues around given coordinates.
    - Request for gyms.

- Extraction of desired info from json files in both cases.

Chicago and it's neighborhoods
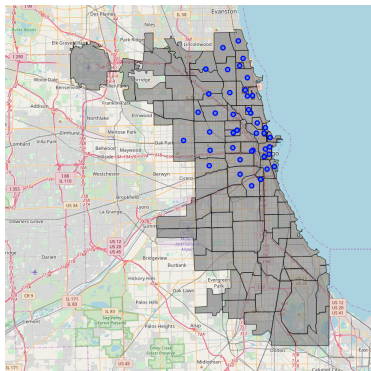
Clustering the neighborhoods

K-means provide a method to make clusters of neighborhoods.

Reduced searching area

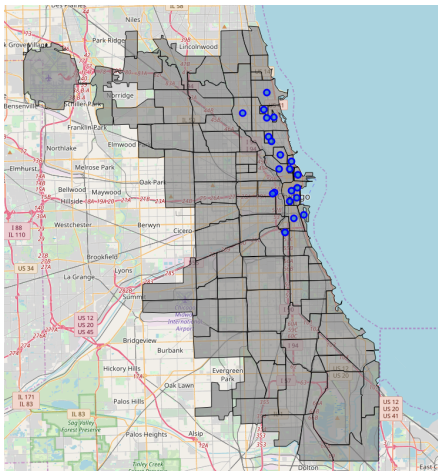Problem: max results for a Foursquare request is 50.

- Drop clusters with less than 50 gyms.

- New and smaller clusters to continue the search.

Area of the city with the higher density of gyms

After 3 iterations the number of neighborhoods is reduced to 22 in small area.

Conclusions

- Objective: search for the best place to open a restaurant of healthy food.

- Target: people who cares for their health.

- Search for the areas in the city where the density of gyms is high.

- Machine learning methods to cluster the neighborhoods of the city.

- Iterations to reduce the searching areas.

- A group of 22 neighborhoods in the north of the city is the best area to search for a location to open the restaurant.