



CAPSTONE PROJECT

A new supplements store in Atlanta

It would be valuable for entrepreneurs

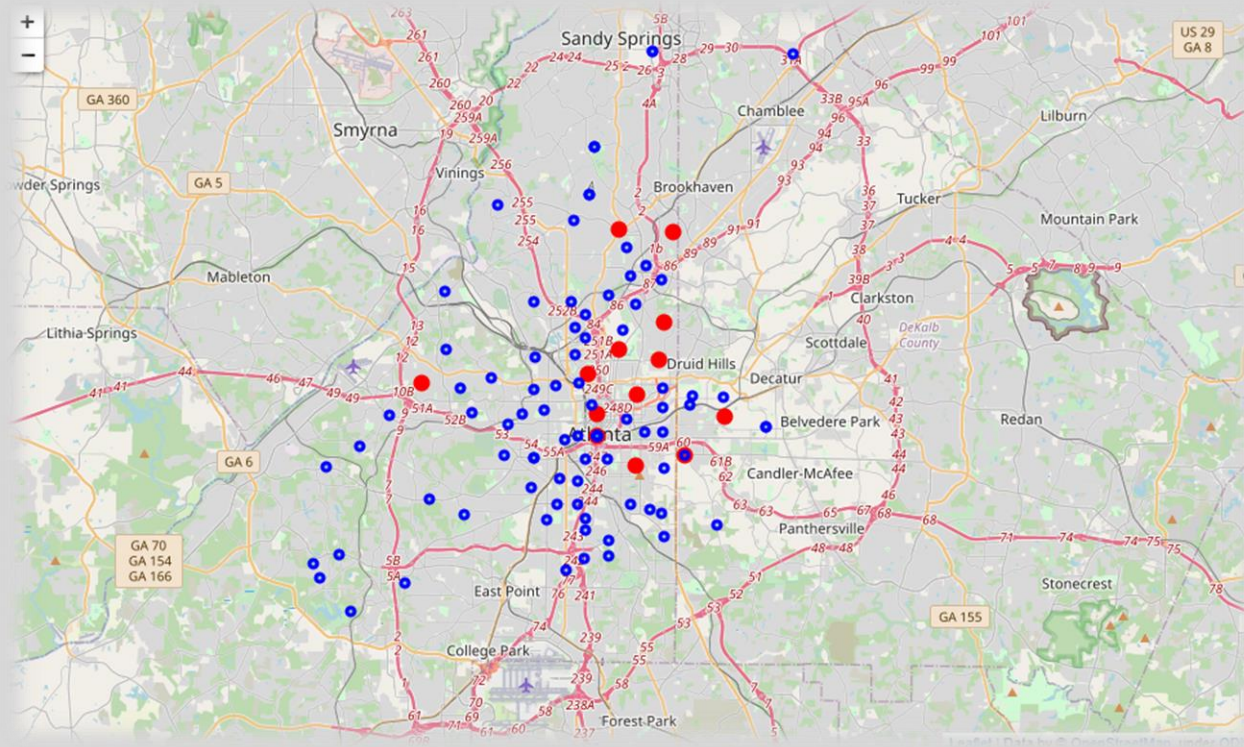
- Growing market for health quality
- Necessary for those who want high performance
- A store near to gyms is very convenient to buy after/before a workout
- A Gym with a better rating is more attractive
- A store near home is convenient
- Interesting study to place a new store

Data acquisition and cleaning

- Neighborhood data from Wikipedia
- Coordinates from Bing Maps API with Geocoder
- Venues data from Foursquare Api
- Duplicates was removed
- Unnecessary data removed

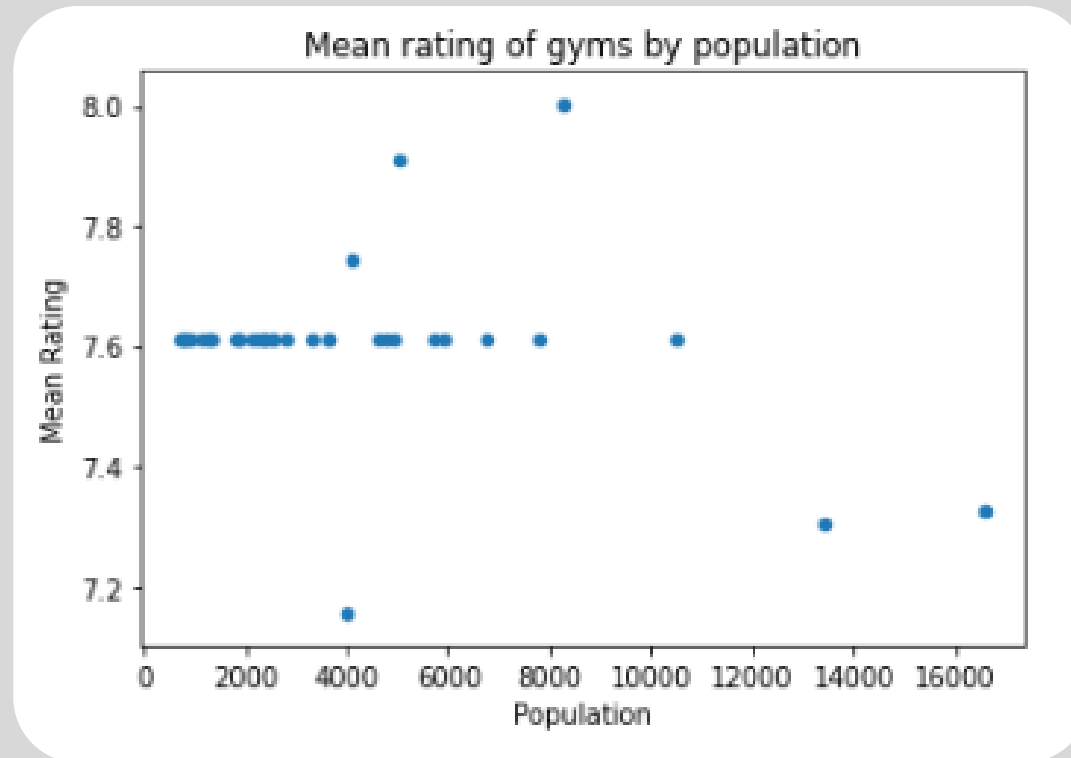
Neighborhood by population

- Red ≥ 5000
- Blue < 5000



Gyms Mean Ratings by population

It seems like neighborhoods closer to the mean population does have a better gym rating



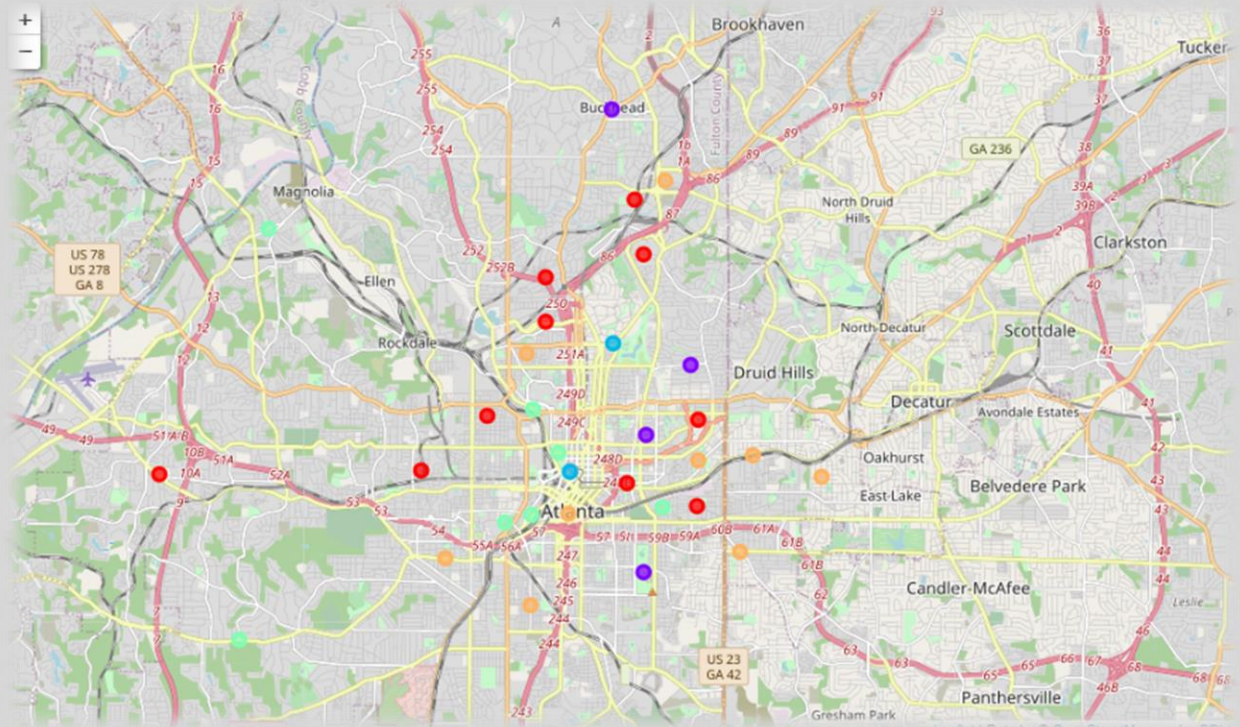
The final table

That was the final table, sorted by the Mean gym ratings from the neighborhood

| | rating | Population (2010) | Latitude | Longitude |
|----------------------------------|----------|-------------------|-----------|------------|
| Neighborhood | | | | |
| North Buckhead | 8.004444 | 8270 | 33.839420 | -84.379921 |
| East Atlanta | 7.910000 | 5033 | 33.739983 | -84.345039 |
| Inman Park | 7.745333 | 4098 | 33.760693 | -84.356461 |
| Adamsville | 7.613333 | 2403 | 33.757393 | -84.502136 |
| Arlington Estates | 7.613333 | 776 | 33.692005 | -84.542496 |
| Kirkwood | 7.613333 | 5897 | 33.756870 | -84.323181 |
| Marietta Street Artery | 7.613333 | 745 | 33.771884 | -84.401108 |
| Old Fourth Ward | 7.613333 | 10505 | 33.766434 | -84.370407 |
| Peachtree Heights West | 7.613333 | 4767 | 33.738483 | -84.424828 |
| Peachtree Hills | 7.613333 | 2785 | 33.819088 | -84.373625 |
| Piedmont Heights | 7.613333 | 2323 | 33.806732 | -84.371185 |
| Pittsburgh | 7.613333 | 3658 | 33.728100 | -84.401627 |
| Poncey-Highland | 7.613333 | 2133 | 33.769669 | -84.356514 |
| Reynoldstown | 7.613333 | 2550 | 33.750195 | -84.356644 |
| Riverside | 7.613333 | 1341 | 33.812408 | -84.472649 |
| Sweet Auburn | 7.613333 | 1882 | 33.755493 | -84.375519 |
| The Villages at Castleberry Hill | 7.613333 | 864 | 33.746693 | -84.408524 |
| Hunter Hills | 7.613333 | 2223 | 33.758240 | -84.431358 |
| Home Park | 7.613333 | 4941 | 33.784515 | -84.402824 |
| Heritage Valley | 7.613333 | 910 | 33.723721 | -84.737991 |
| Castleberry Hill | 7.613333 | 1285 | 33.748230 | -84.401588 |
| Atlanta University Center | 7.613333 | 5703 | 33.748547 | -84.391502 |
| Audubon Forest | 7.613333 | 813 | 33.715942 | -84.776321 |
| Brookwood | 7.613333 | 1834 | 33.801762 | -84.397545 |
| Cascade Heights | 7.613333 | 1124 | 33.720242 | -84.480431 |
| Virginia-Highland | 7.613333 | 7800 | 33.782063 | -84.358688 |
| English Avenue | 7.613333 | 3309 | 33.770699 | -84.413471 |
| Grant Park | 7.613333 | 6771 | 33.735443 | -84.371178 |
| Greenbriar | 7.613333 | 3628 | 33.683338 | -84.493637 |
| Hammond Park | 7.613333 | 2565 | 33.918034 | -84.361977 |
| Cabbagetown | 7.613333 | 1247 | 33.750156 | -84.365959 |
| Lindbergh | 7.613333 | 4598 | 33.823410 | -84.365349 |
| Baker Hills | 7.613333 | 757 | 33.762275 | -84.394118 |
| Atlantic Station | 7.613333 | 1888 | 33.791836 | -84.397514 |
| Chastain Park | 7.613333 | 2398 | 33.876190 | -84.392853 |
| Midtown | 7.328000 | 16569 | 33.786800 | -84.379517 |
| Downtown | 7.304444 | 13411 | 33.757935 | -84.391304 |
| Edgewood | 7.156667 | 3983 | 33.761787 | -84.341835 |

Clustering

After clustering, the most interesting Neighborhoods was the ones closer To the mean value of population and Better gym rates (The purple dots)



Conclusion and future directions

- The first conclusion is North Buckhead with the best gyms and a nice population
- For more details would be interesting to have prices table (was not available in the venues gathered)
- It is important to have up to date data
- Foursquare is very limited because few people have used and no one uses anymore
- Ideas include:
 - Pricing data
 - More ratings
 - Visitation data