

APPLIED DATA SCIENCE CAPSTONE PROJECT

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PROBLEM STATEMENT

- Many Americans are making the switch to a vegetarian/vegan lifestyle
- Most restaurants have limited vegetarian/vegan options
 - Meals can be cross-contaminated with other foods
- Restaurants that cater vegetarian/vegan needs may be difficult to find

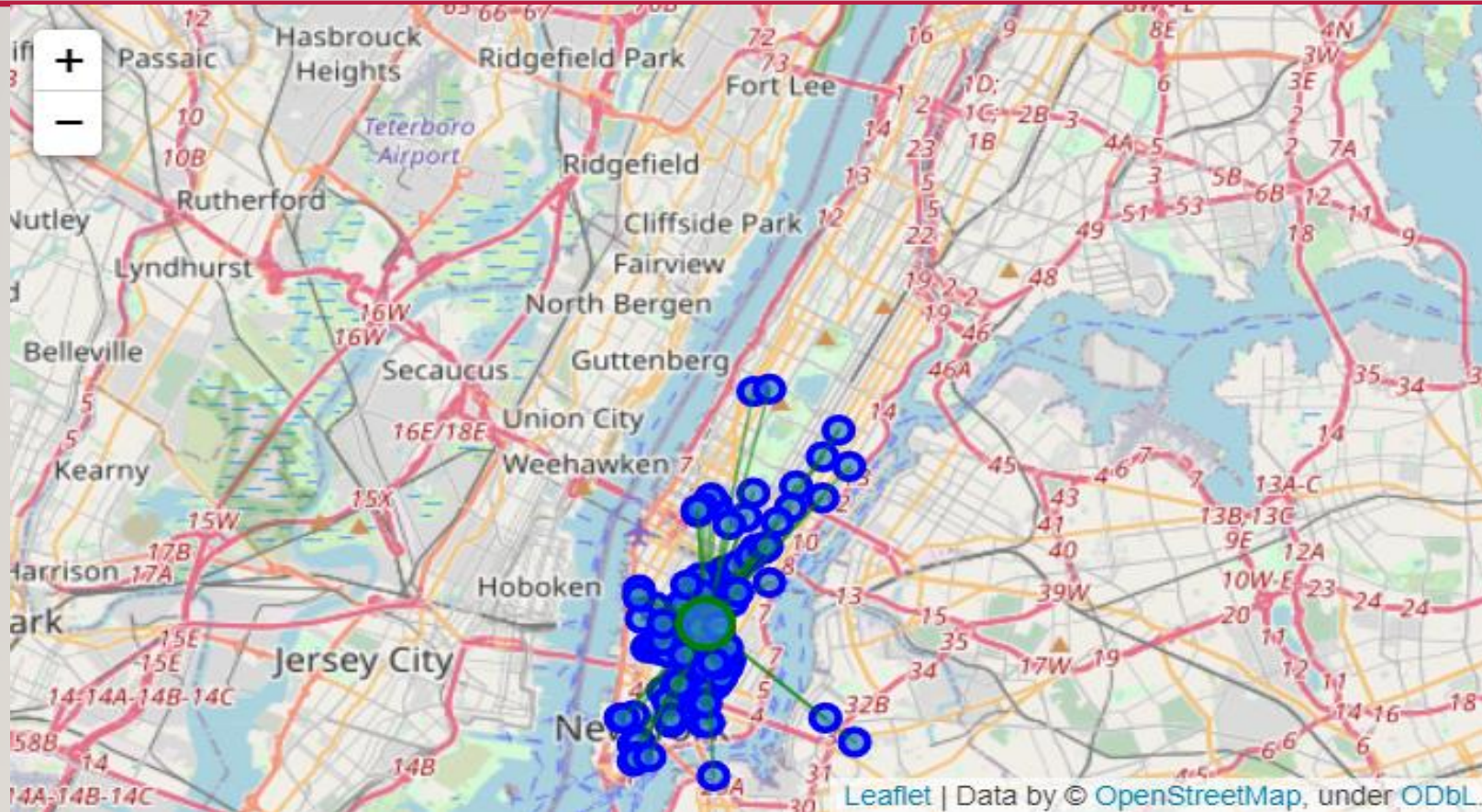


SOLUTION

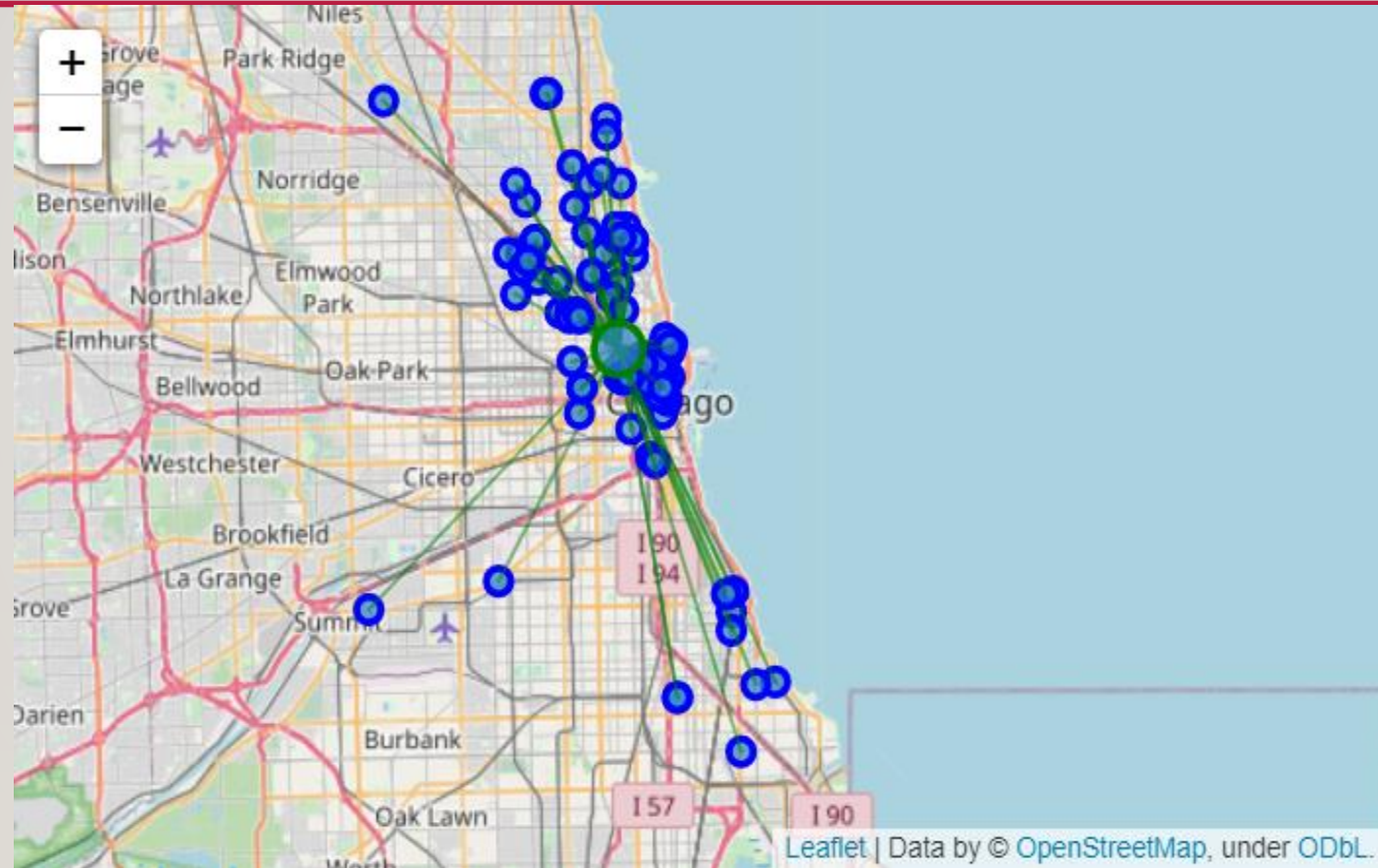
- Using the Foursquare API, find the number of vegetarian/vegan restaurants in each city and analyze their location density to see whether some cities offer a better variety/accessibility than others.



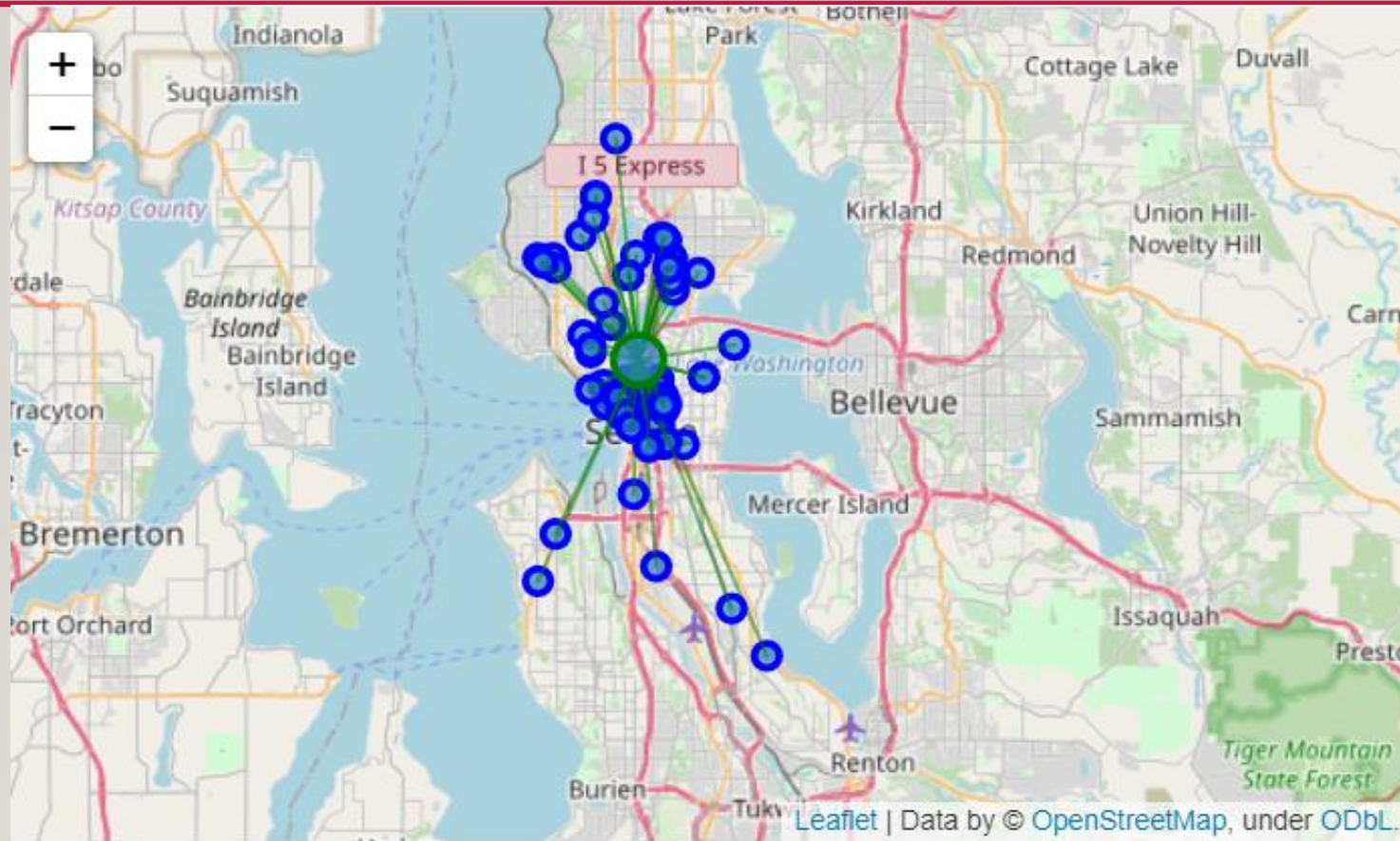
MAP OF NEW YORK, NY



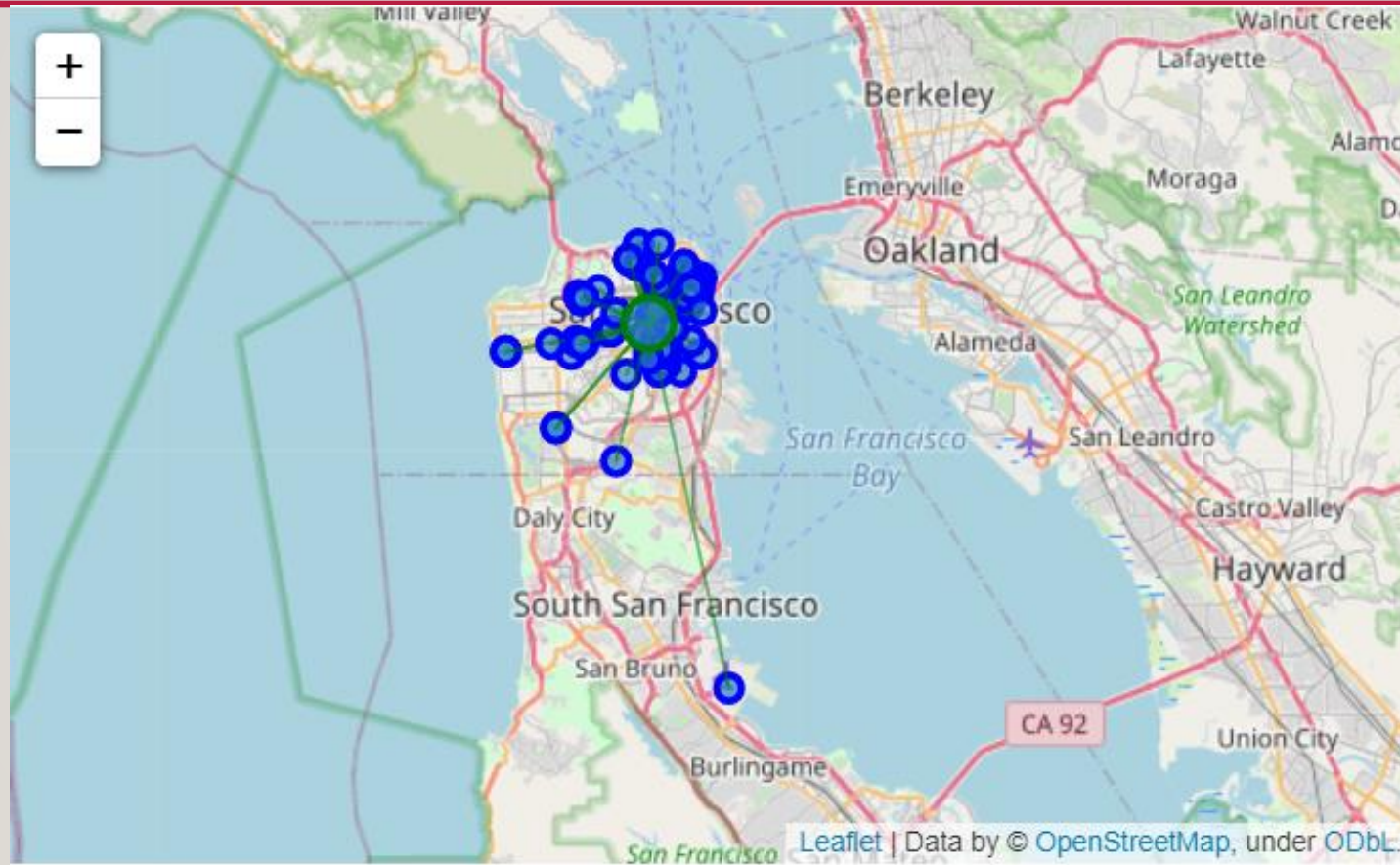
MAP OF CHICAGO, IL



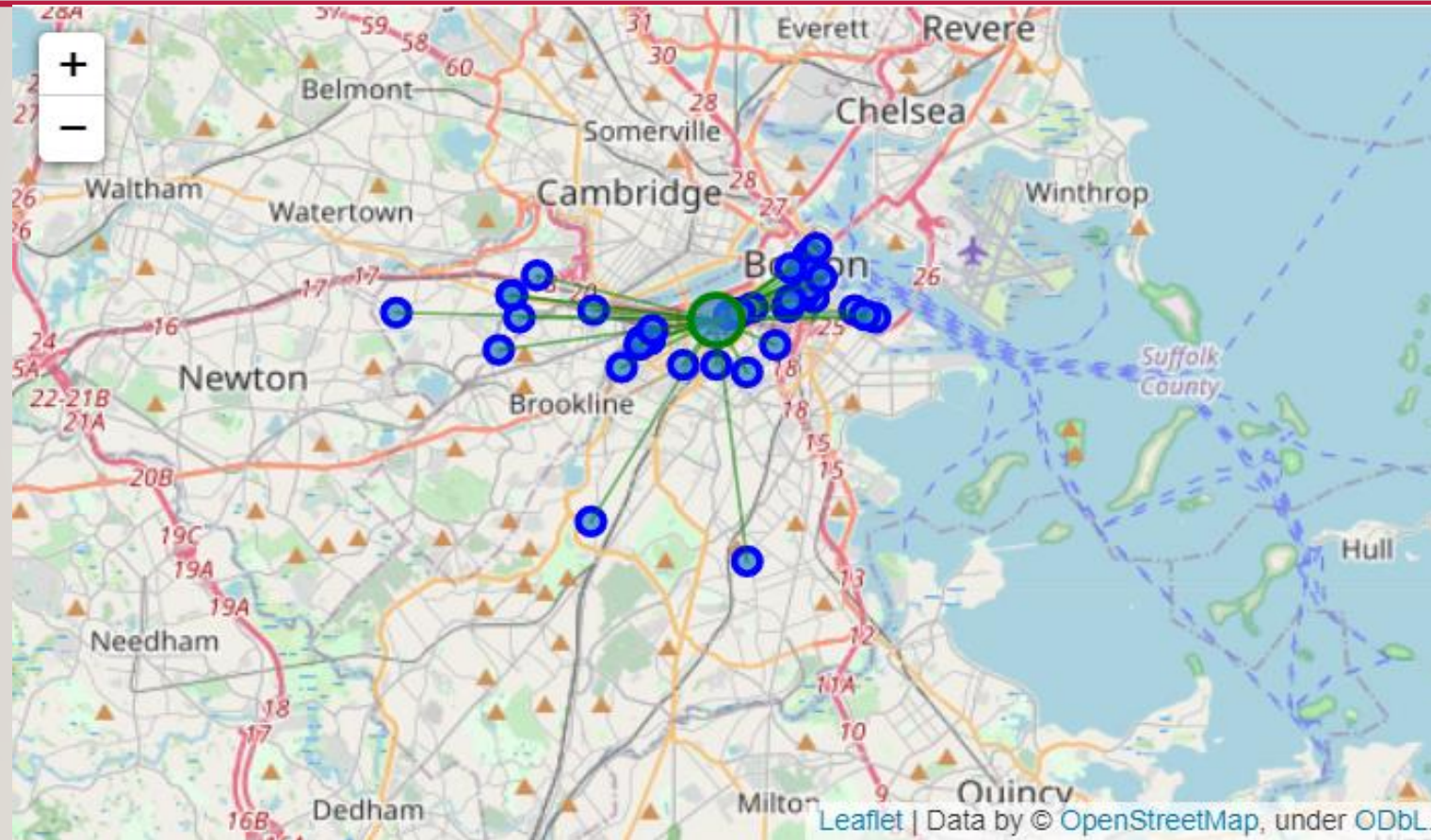
MAP OF SEATTLE, WA



MAP OF SAN FRANCISCO, CA



MAP OF BOSTON, MA



RESULTS

Total number of vegetarian/vegan restaurants in New York, NY = 235
Total number of vegetarian/vegan restaurants in Chicago, IL = 122
Total number of vegetarian/vegan restaurants in Seattle, WA = 67
Total number of vegetarian/vegan restaurants in San Francisco, CA = 82
Total number of vegetarian/vegan restaurants in Boston, MA = 39

New York, NY
Mean Distance from Mean coordinates
0.01867679223504514
Chicago, IL
Mean Distance from Mean coordinates
0.050932744040259915
Seattle, WA
Mean Distance from Mean coordinates
0.03942519266378813
San Francisco, CA
Mean Distance from Mean coordinates
0.027534152008194007
Boston, MA
Mean Distance from Mean coordinates
0.029878045073234674

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- The total number of vegetarian/vegan restaurants in each city
 - The average distance to go to a vegetarian/vegan restaurant from a central city point

CONCLUSION



- There are a variety of vegetarian and vegan restaurants available in certain cities
- However, this may not be representative of all cities in the US, with some having a small number of available restaurants – most likely due to smaller population, existing demand, and different ideals/beliefs.