

Best place to watch more football matches in USA

1. Introduction/Business Problem

Football fan in France, never visited USA, but would like to visit and stay in a city in USA for a month to watch more football matches, without traveling to many cities in USA. The problem is to analyze the density of Football stadium in the major US cities and find the best place for our tourist so that he can visit one place, stay and watch all matches without traveling to multiple places.

2. DATA SECTION

a. Data Acquisition

FourSquare API is used to collect data about locations of Football stadium in 5 major US cities which are: New York, NY, San Francisco, CA, Jersey City, NJ, Boston, MA and Chicago, IL. These are one of the most famous US cities. Our tourist can visit one of these places, enjoy more football along with visiting the attractions close by

b. List of best cities chosen for watching football and visiting attractions close by

- New York, NY,
- San Francisco, CA,
- Jersey City
- NJ, Boston
- MA and Chicago, IL

c. Data Cleaning

Top 100 best football stadium/grounds in the city is chosen

3. Methodology

First I assessed city would have the highest football stadium density. I used the Four Square API through the venues channel. I used the near query to get venues in the cities.

I use the CategoryID to set it to show only football stadium. An Example of my requests:

https://api.foursquare.com/v2/venues/explore?&client_id=&client_secret=&v=20180605&New York, NY&limit=100&categoryId=4bf58dd8d48988d189941735

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4bf58dd8d48988d1ca941735 is the Id of the football stadium Category. Also, Foursquare limits us to maximum of 100 venues per query.

I repeated this request for the 5 studied cities and got their top 100 venues. I saved the name and coordinate data only from the result and plotted them on the map for visual inspection.

Next, to get an indicator of the density of football stadium, I calculated a center coordinate of the venues to get the mean longitude and latitude values. Then I calculated the mean of the Euclidean distance from each venue to the mean coordinates. That was my indicator; mean distance to the mean coordinate.

4. [Results](#)

Upon First inspection we see that San Francisco, New York and Jersey City and are the most densely cities, then calculated the Mean coordinate and the mean distance to mean coordinate(MDMC). Below represent mean coordinate with a big green circle and distances with green lines

New York, NY

Mean Distance from Mean coordinates

0.041069871448912554

Chicago, IL

Mean Distance from Mean coordinates

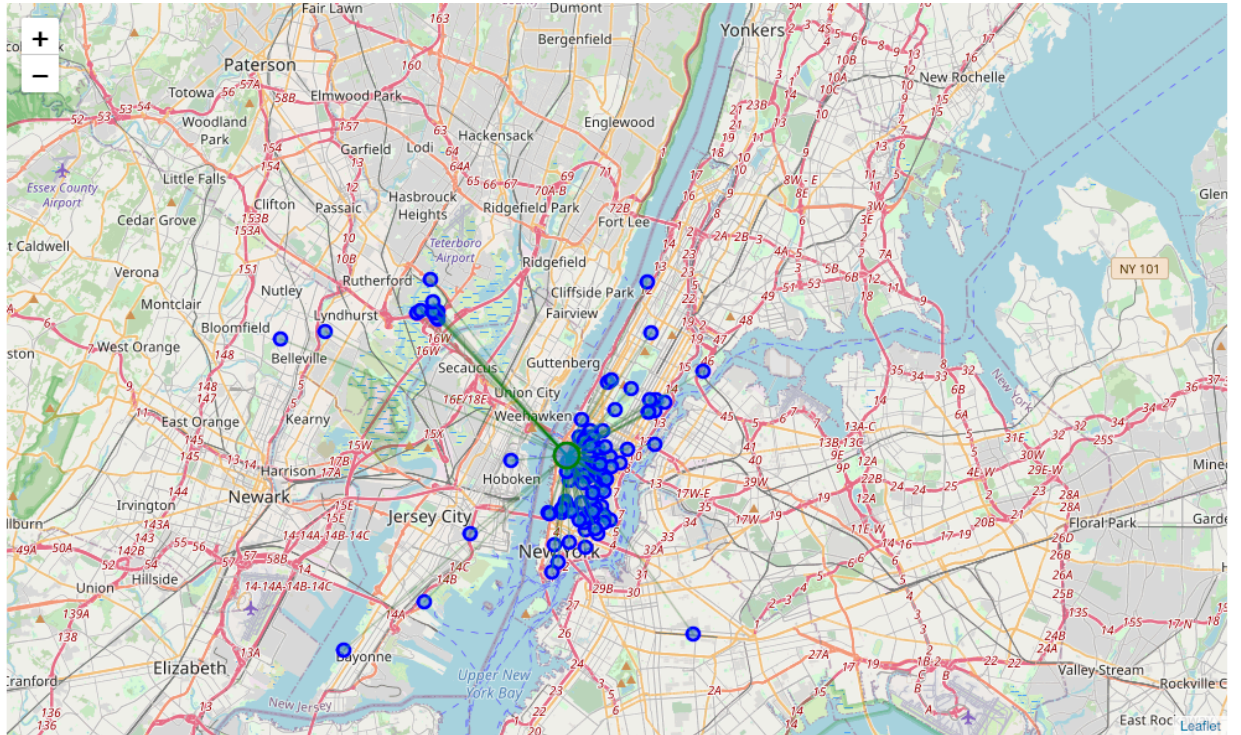
0.05319101745396471

San Francisco, CA
Mean Distance from Mean coordinates
0.02909977090345476

Jersey City, NJ
Mean Distance from Mean coordinates
0.06375630269774274

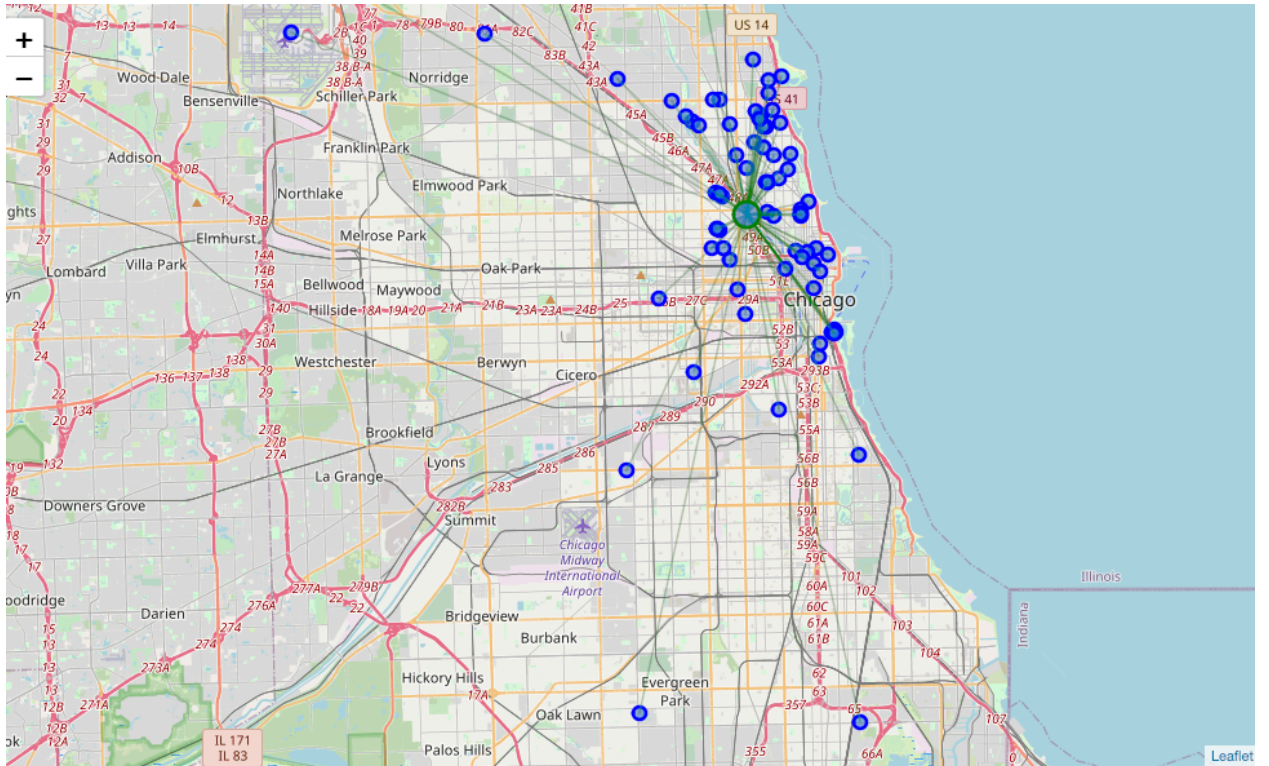
Boston, MA
Mean Distance from Mean coordinates
0.143874792611992

[New York, NY](#)

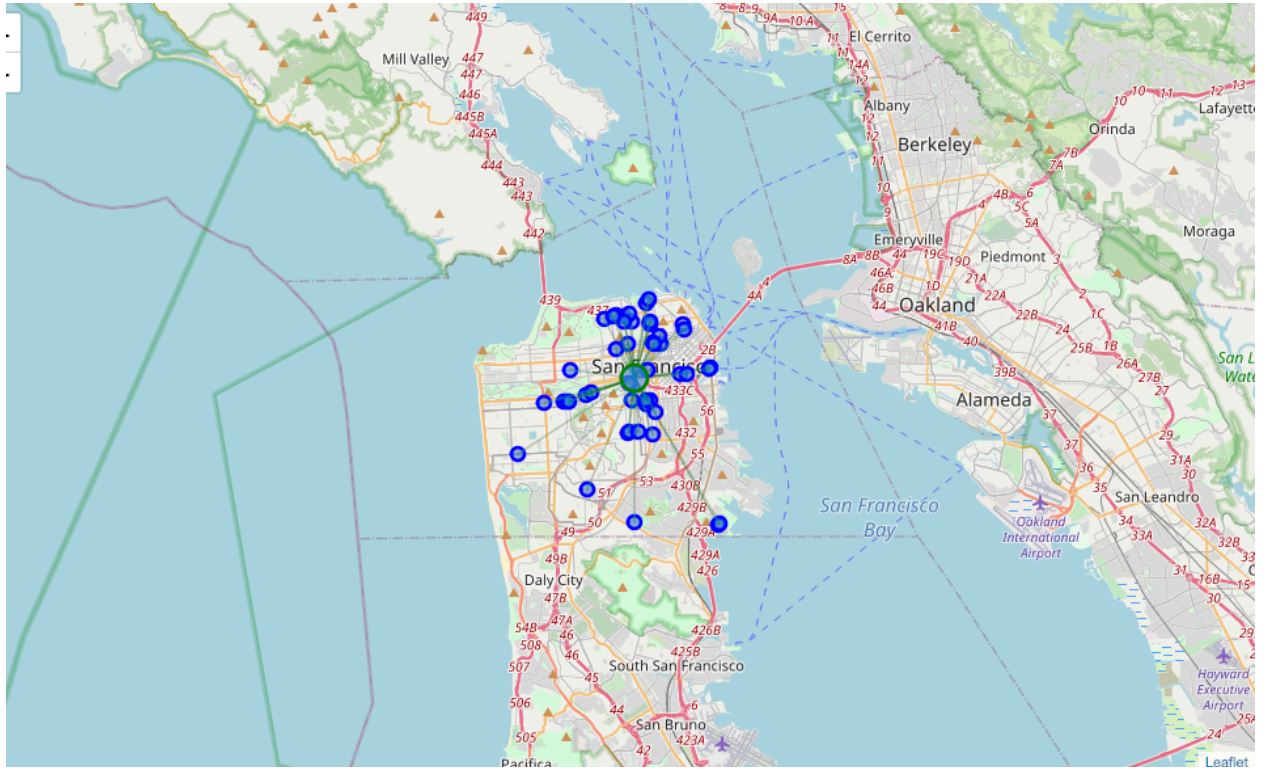


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Chicago, IL

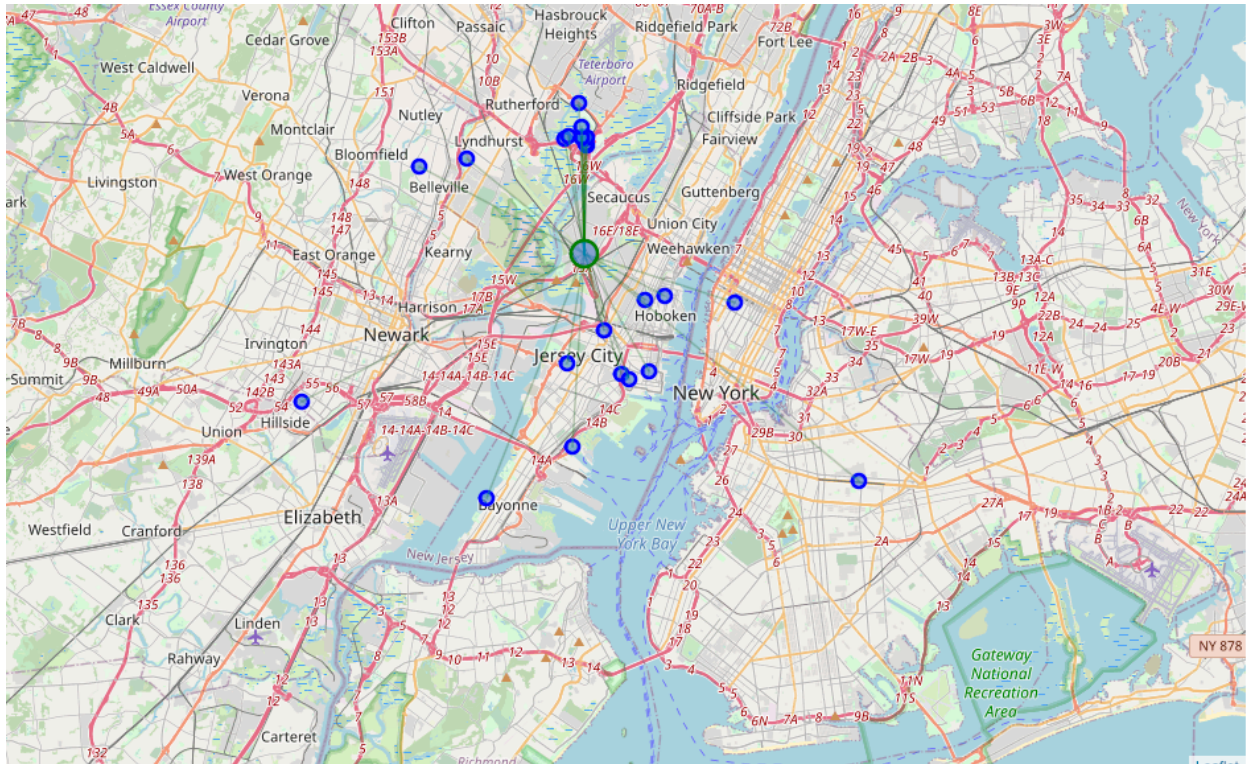


San Francisco, CA

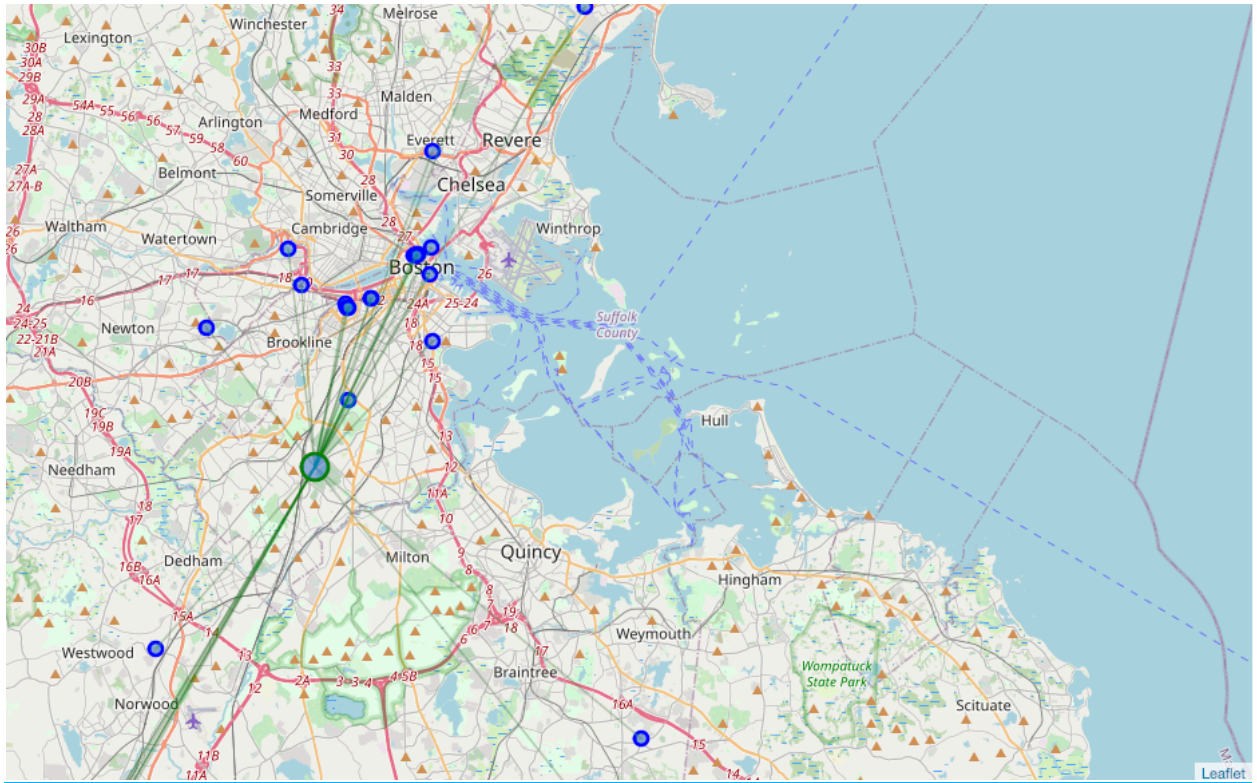


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Jersey City, NJ



Boston, MA



5. Conclusion

With above analysis, we are concluding that San Francisco is the best place for our tourist to watch more football games in USA than any other city in USA, it will help our tourist save cost and time in avoiding travel to multiple places to watch his most loved football games in USA, just in staying in San Francisco, he can other attractions in San Francisco while there was no football match

