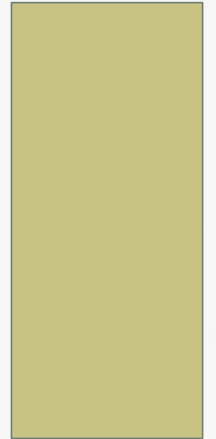# FIND HOSPITALS IN PANDEMIC SITUATION

RAHUL PRATAP SINGH

INTRODUCTON

This project aims at finding hospitals to tackle a pandemic situation. In case a widespread deadly disease spread, then we have to respond quickly. A quicker response can save us from the pandemic. The first thing will be finding the infected ones and next, to diagnose them. The best possible option is to find and help hospitals in the area, but for a densely populated city like New York, Tokyo, and Paris, this won't be an easy job. Hence, here I will be using Data Science and Machine Learning to locate the hospitals and analyze it to check whether it can serve the purpose. In this pandemic, this projects aims to find out all possible

BUSINESS PROBLEM

To gather locations of Hospitals and to locate them using FOURSQUARE, plot it with the population of the city. Analyzing data to find out insides on medical preparation for a pandemic.

TARGET AUDIENCE

This project is for governments who have to tackle the situation of an outbreak, Health Ministry and Medical heads.

DATA

➢Using FOURSQUARE for searching hospitals and their locations.

❖Using this data to plot it on Map.

❖Clustering them to know the groups of location for better connectivity.

➢Taking insights about population from Wikipedia.

❖ Using population data to check the sufficiency of hospitals.

METHODLOGY

➢ Data was collected from Foursquare. Then plotted on the Map to viusalize thier position

➢ Then, clustered through DBSCAN, based on thier distance hence creating a density remark from the center of city.

➢ It was labelled in such a way that two nearest hospitals are red, distance more than that blue, green and brown for the far one.

➢ I plotted the population too which gives us the notion of required medical facilities.
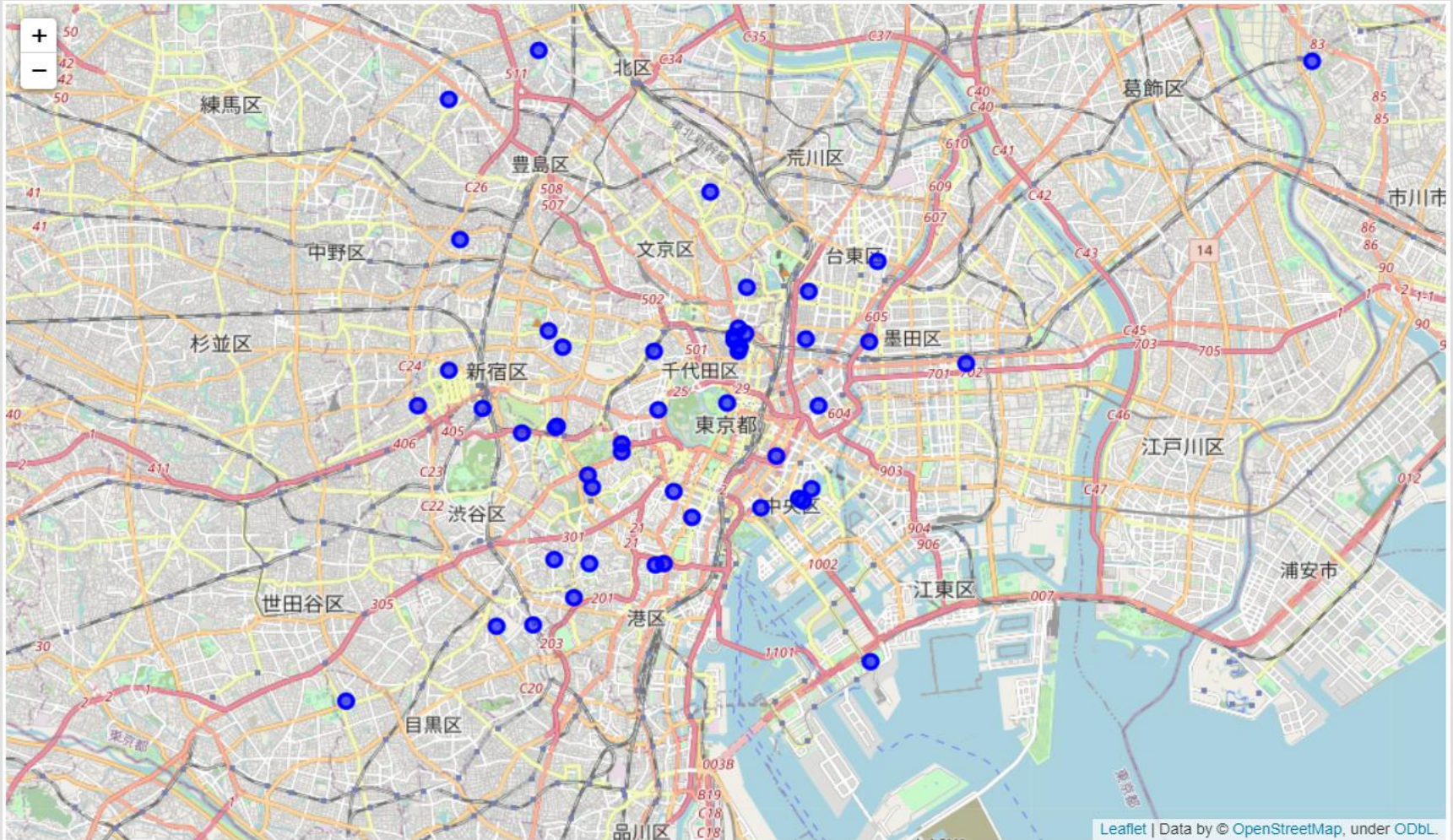
NEW YORK

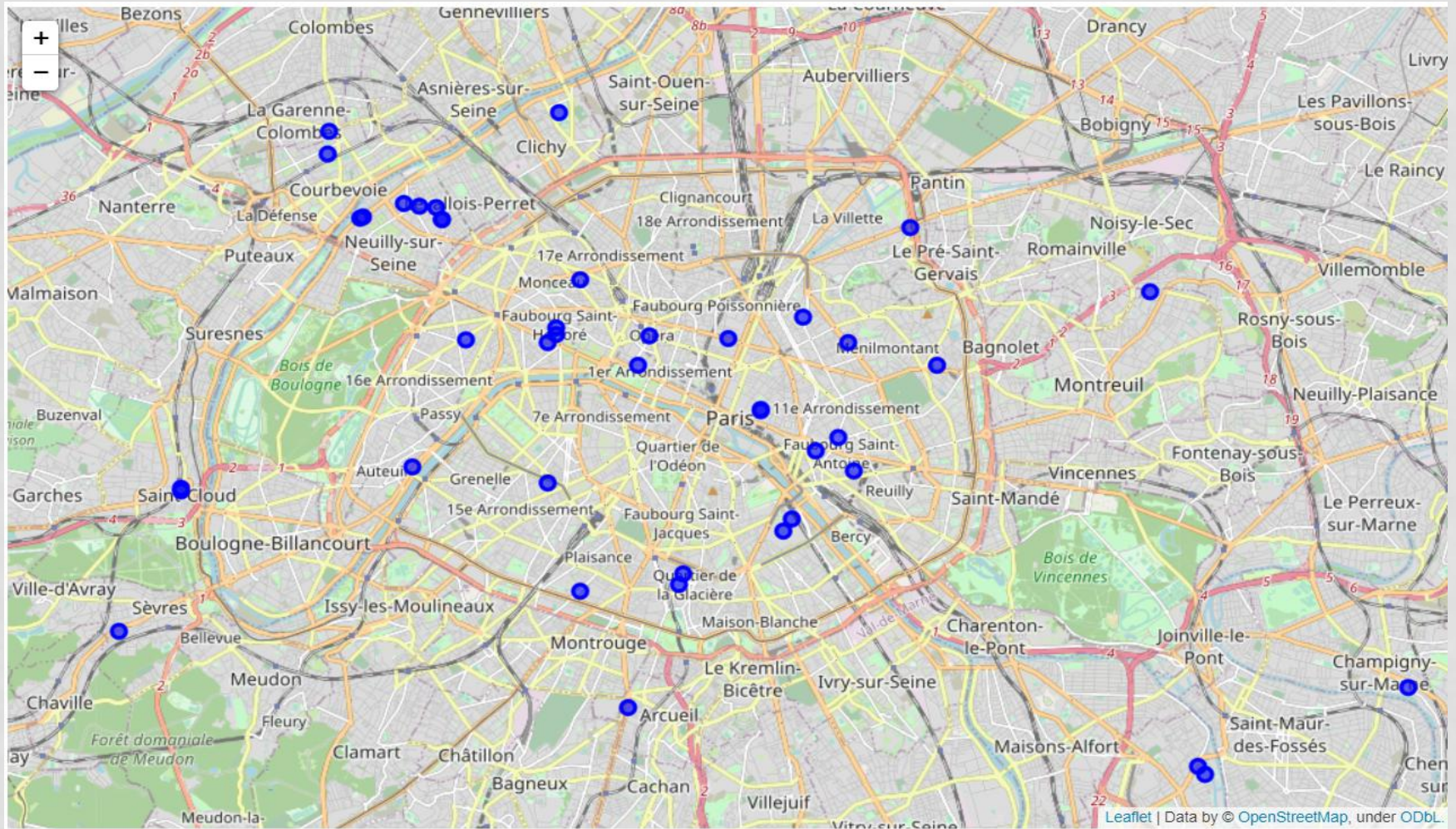Hospitals in New York under 40 Km radius. Plotted Data.

TOKYO

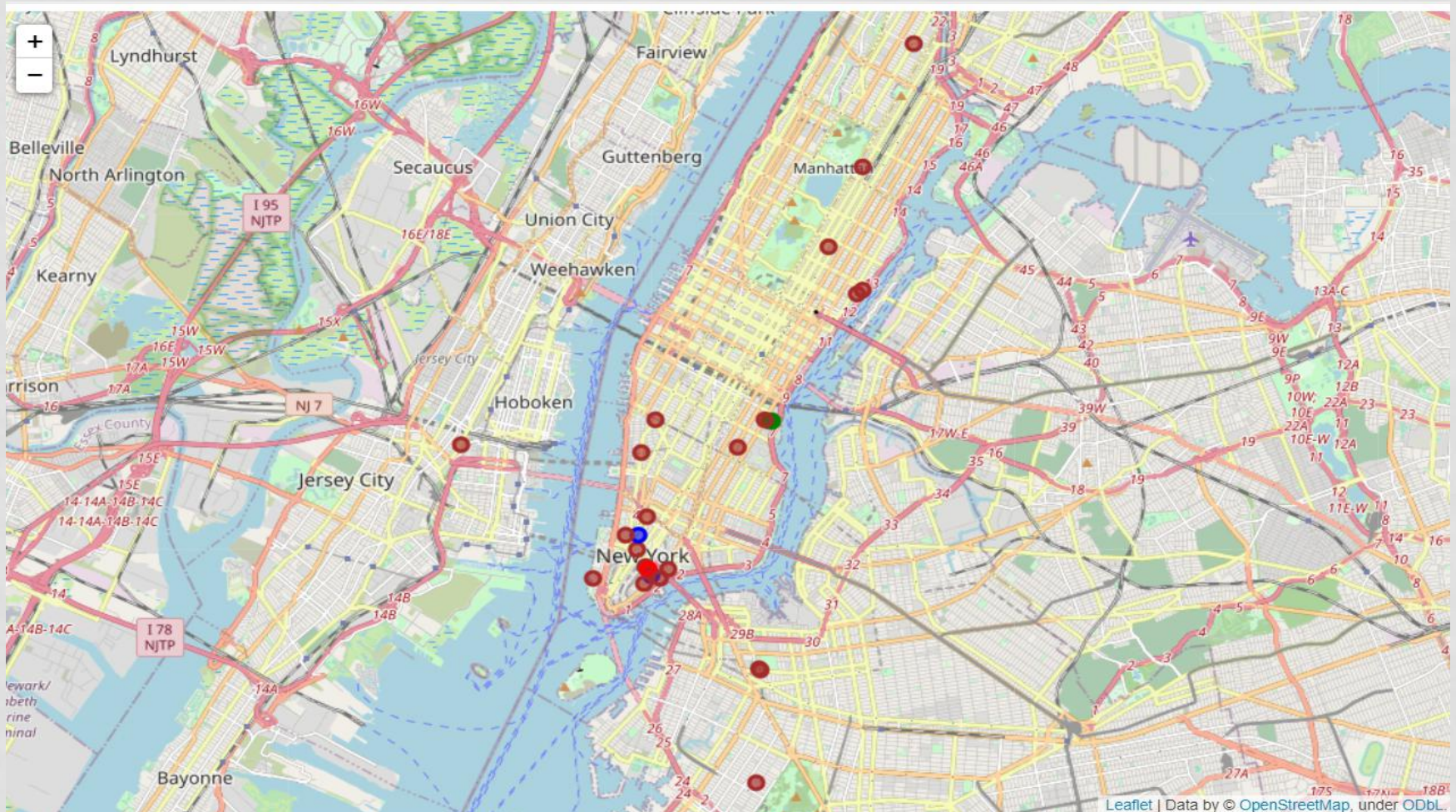Hospitals in New York under 40 Km radius. Plotted Data.

PARIS

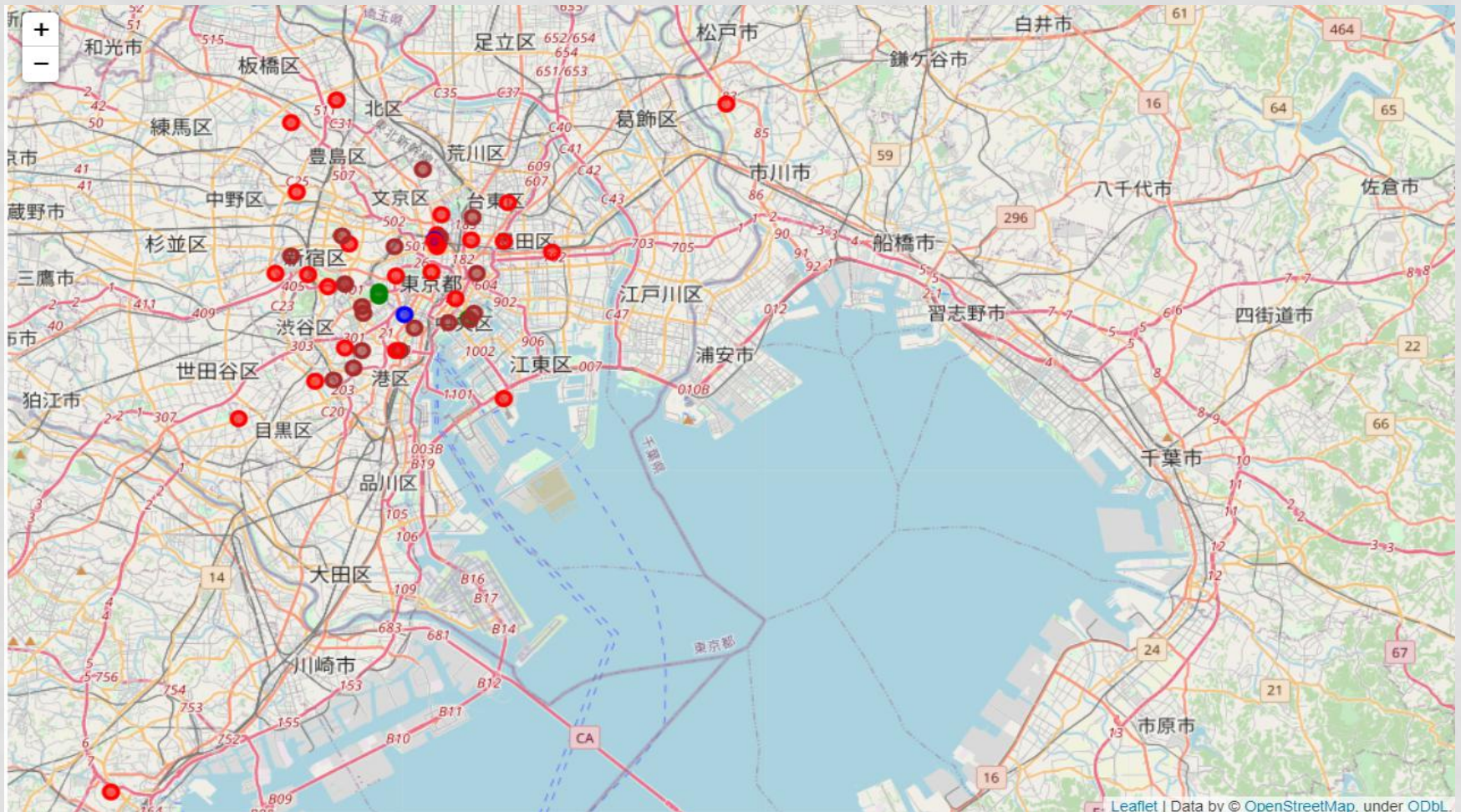Hospitals in New York under 40 Km radius. Plotted Data.

CLUSTERING

➢The data was clustered after that using DBSCAN, the parameter for clustering was distance from the center of city as located by geocoder.

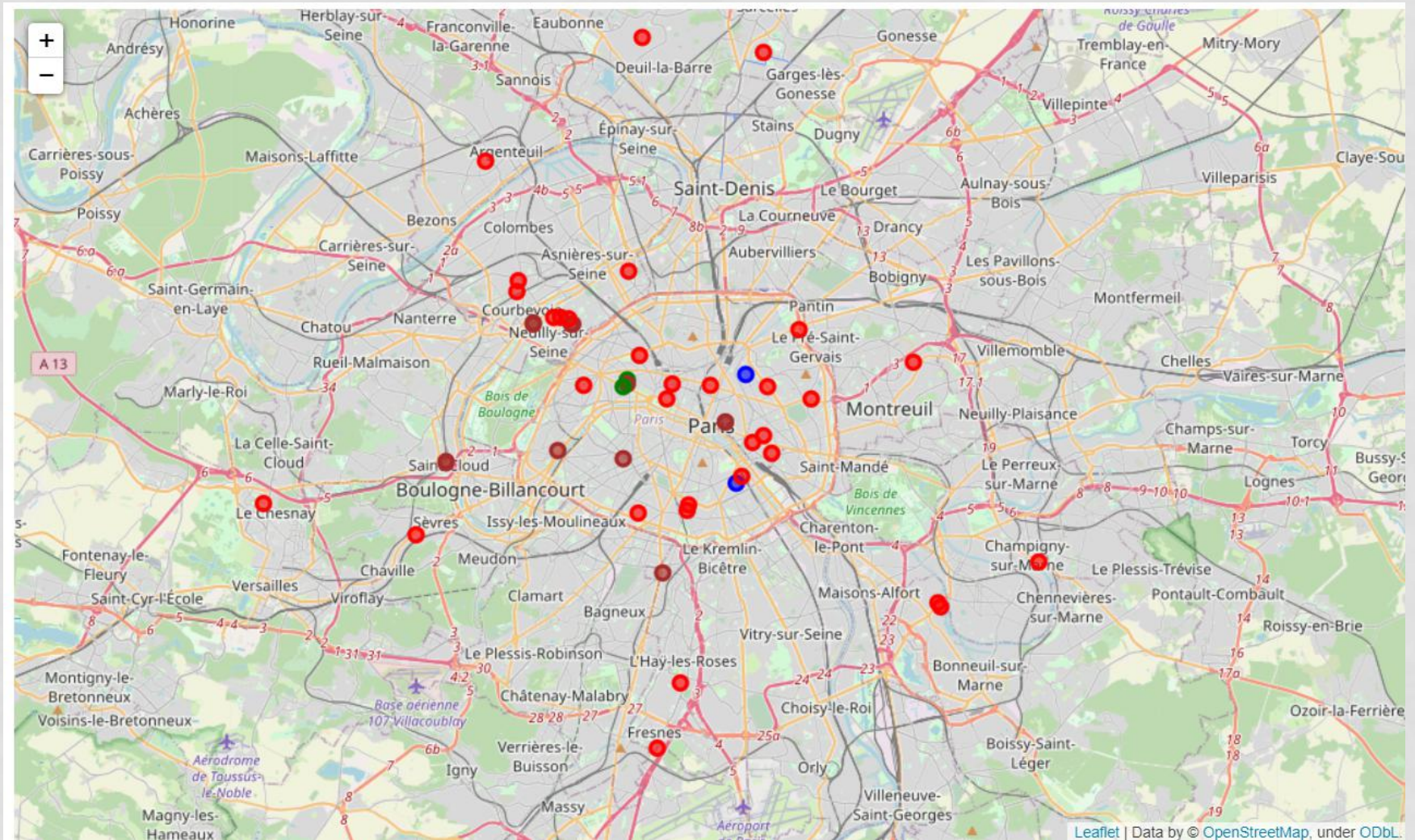➢Brown's ones are far located, red one as nearest then blue and green
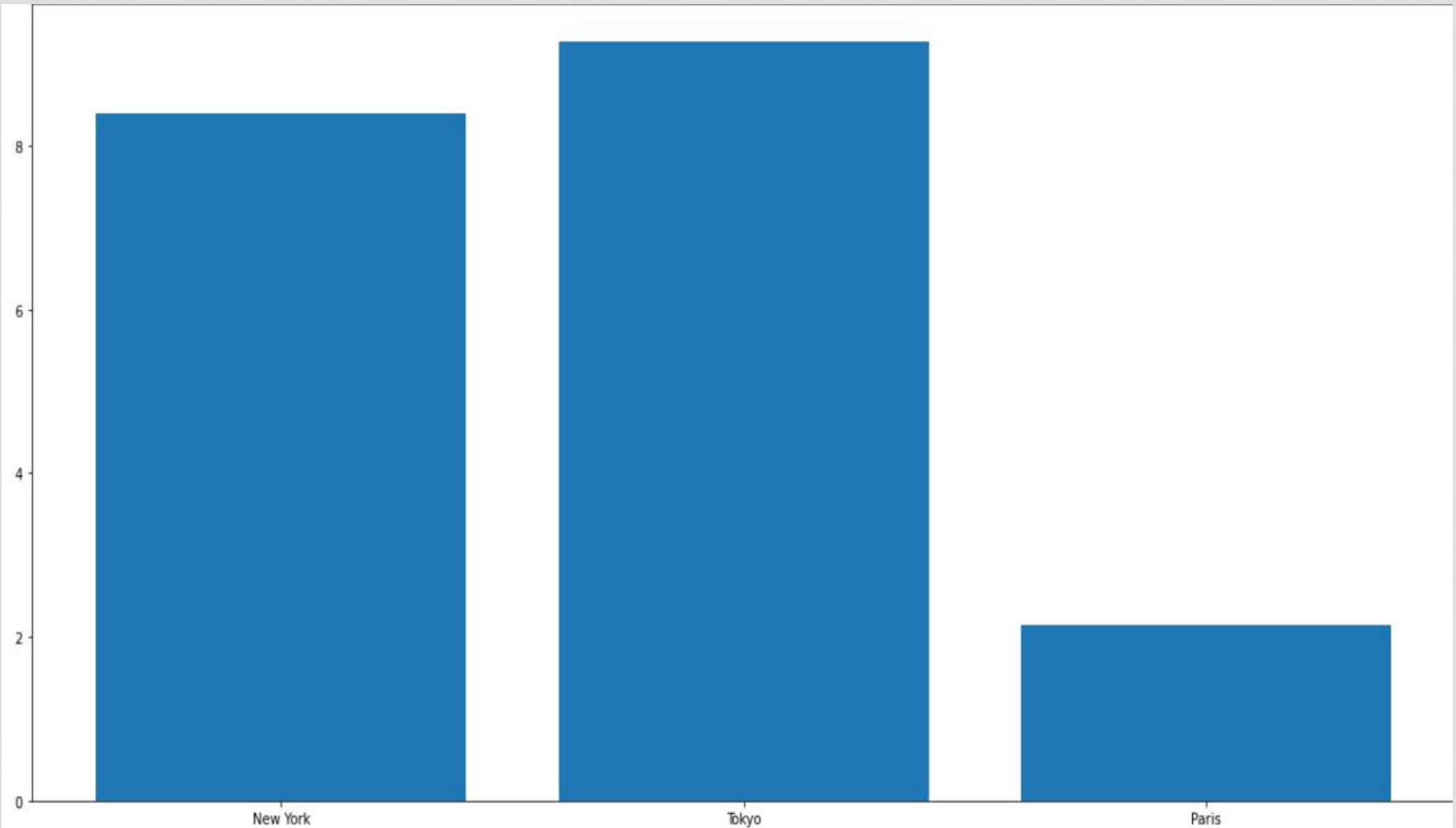
CLUSTERED NEW YORK

CLUSTERED TOKYO

CLUSTERED PARIS

POPULATION STATS

RESULTS

➢ New York is most distributed among them

➢ Tokyo looks pretty connected but concertrated at a spot

➢ Paris has a good picture of well distributed.

➢ Population stat's reveal Tokyo is highly populated but the density of hospitals is also very high hence if worked together they can contain a pandemic

➢ New York, it won't be easy for them as they are far and will take time to connect and transport

➢ For Paris it's best relatively better connected and least populated with a benfit of centerd to connect easily

CONCLUSION

In case of a pandemic, a place with hospital and population stats of Paris will be better to connect and predict