|  |
| --- |
| Covid-19: Hospitals in New York  2020 |
|  |
| October 17  Coursera IBM Data Science Capstone Assignment Report |

# Introduction

|  |
| --- |
| Covid-19 has caught the whole world by surprise with the World Health Organization elevating the status of COVID-19 as a pandemic on 11 March 2020.  As of 17th October 2020 there had been reported cases of more than 39 million and deaths of over 1 million worldwide with USA having the highest number of cases.  There were numerous reports on severe shortages of medical supplies and New York was one of the worst-hit state in USA in the initial outbreak in USA. If the hospitals can form a network among themselves to share supplies which they can spare, it will help in optimizing the medical supplies, reducing the spread of the virus and saving lives. Data Foursquare has information and exact locations of various venues including hospitals which we can make API calls to get the data required. To do this we need to first create a Foursquare developer account on Foursquare website and get the credentials. Then we construct a URL in the specific format to send a request to the API to search for the location or venues of interest.  Assuming one of the hospitals has sufficient masks, PPE suits or ventilators to spare with address as per below:   Methodology We get the preliminary results in json format. Let’s view part of it:    To enable data cleaning, let’s translate it into pandas dataframe:    Data cleaning, keeping relevant information/ columns:   Results Put in onto the map    The red circle indicates the hospital with the supplies sufficient to help other hospitals.  The blue circles shows which hospital is the nearest and furthest limited to 500 radius around it.   Discussion From the map, there are overlapping blue circles which may be under the same hospital management as we study the names in detail. Hospitals specializing in Orthopedic or Psychiatric are under this same hospital list is less relevant for this study and could be omitted.  To take this study to a higher level we can take further steps by mapping population to check population density of the area and priority can be given to hospitals with higher population around the area. Conclusion This preliminary study will allow optimization of constrained resources and effective allocation can be done to ensure more citizens has better chances of getting their medical supplies which will reduce the spread of virus and save their lives. |
| Thank you for reading & reviewing! |
|  |