

Listing Cities from Major Metropolitan Statistical Areas(MSAs)

The first task is to filter out cities from the list all MSAs([Link](#)) so that the cities are as widely spread as possible. This is a required step in preparing for the further steps like cleaning and analysis of data. So, the priority here is to selecting/filtering cities based on geographical positioning rather than the statistical values like population or area.

Initially, I wanted to use the 5-regions in USA as a metric to select 2-3 cities from each region([Regions in USA](#)) but the problem I found with this approach is that the regions are not spanned over same/similar area. For example, West and Midwest regions are way larger than Northeast.

So, I wanted to proceed with the manual approach of adding placemarks of MSAs on the Google Earth application to visually see the spread of the MSAs. The initial plot consisted of cities that are concentrated in specific state like California, and NY. So, to tackle this, I chose only the city with the largest population from a group of cities that rare nearby. After removing a majority of the cities that are nearby, we now have a list of about 14 Cities. They are:

1. New York City, NY
2. Los Angeles, CA
3. Chicago, IL
4. Dallas, TX
5. Miami, FL
6. Atlanta, GA
7. Phoenix, AZ
8. Seattle, WA
9. Minneapolis, MN
10. Denver, CO
11. St. Louis, MO
12. Salt Lake City, UT
13. Omaha, NE
14. Boise, ID

I wanted to keep the minimum distance between the cities at least 250 miles apart, so I went ahead with measuring the distance between the nearby cities and all of them had a minimum of 250 miles distance in between. Having this list of cities ready, we can now proceed to the main step of cleaning and preparing the data.

Link to the Google Earth Project:

<https://earth.google.com/earth/d/1ttBqboUgOT0t5vQm6nT9nh4NS0AwPJ9i?usp=sharing>