1. I used SQL to extract temperature data of New York City and temperature data globally.

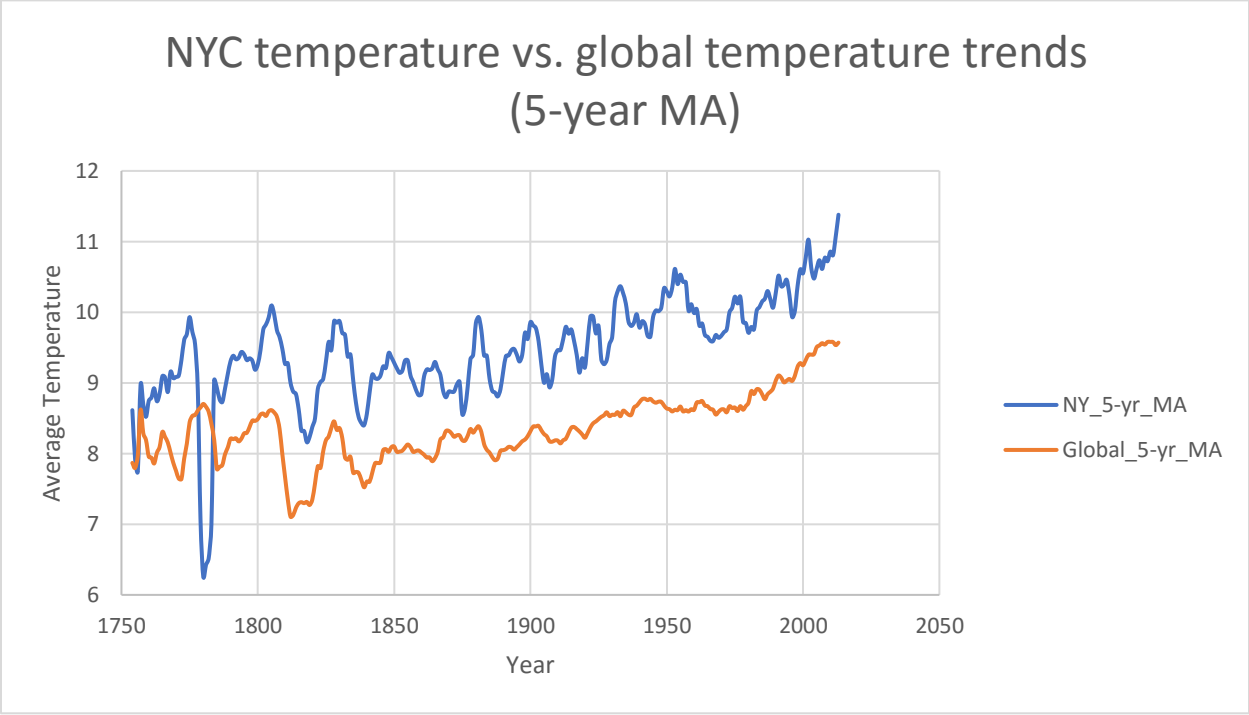
Codes:

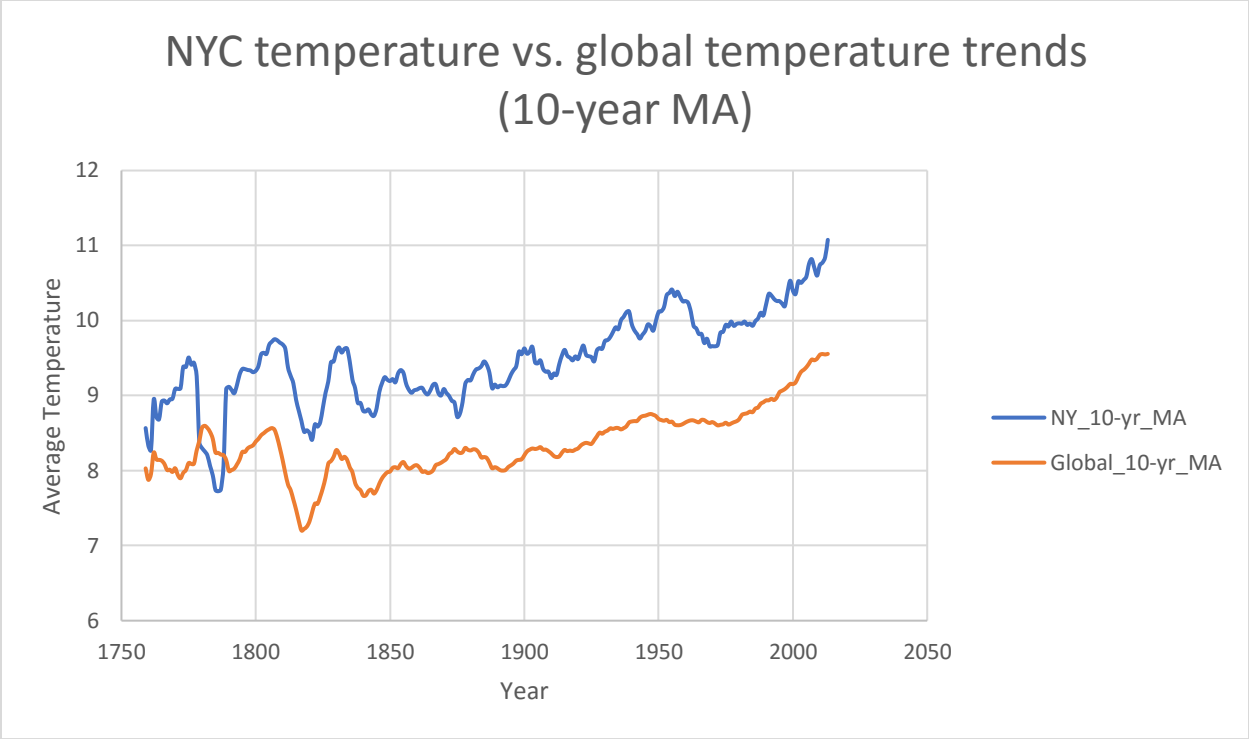
```
SELECT *
FROM city_list
```

```
SELECT *
FROM city_data
WHERE city IN ('New York')
```

2. I opened .csv files in Excel, then calculated the 5-year moving average and 10-year moving average of temperature data of New York City and temperature data globally. For each year, I took the average of the temperatures of that year and the 4 years ahead to calculate the 5-year moving average, and I took the average of the temperatures of that year and the 9 years ahead to calculate the 10-year moving average.

3. I plotted the 5-year moving average and 10-year moving average of temperature data of New York City and temperature data globally as line charts.





4. The 10-year moving average line chart gave smoother lines, so I decided to use the plot of 10-year MA for analysis.
   My observations are:
   a. New York's average temperature and the global average temperature both increased over time, and the trends are similar.
   b. New York's average temperature is higher compared to the global average temperature, and this difference has been consistent over time.
   c. New York's average temperature has been increased more than the global average temperature, the difference was 0.5 degree around year 1750, but more than 1 degree after year 2000.
   d. The world is getting hotter, and the increase has been consistent over the last few hundred years, especially after year 1850.