GIFTY AIYEGBENI - Project Submission: Exploring Weather Trends

What tools did you use for each step? I extracted the data by writing an SQL query for each of the data sets. The queries were;

SELECT city.year as cyear, city.city, city.country, city.avg_temp as city_avg_temp, global.year as gyear, global.avg_temp as gavg_temp
FROM city_data city, global_data global
WHERE city.year = global.year
AND city.city = 'lagos'

Then I downloaded the extracted CSV file. Afterwards, I used excel software to access the data.

How did you calculate the moving average? I calculated the moving average for both the global and local (Lagos) data using the average function in excel. First, I calculated the average of the first two years (1856 and 1857). Then I clicked and dragged the formula down to the other cells to get the moving averages for other years.

What were your key considerations when deciding how to visualize the trends?
When deciding how to visualize the trends, I considered the years and the moving averages of both the local and global temperatures. I considered the movement, consistencies and inconsistencies in the trends. I also considered the best way to make the trends observable at first glance to aid accuracy in my observations.

Local (Lagos) and Global Average Temperatures

,
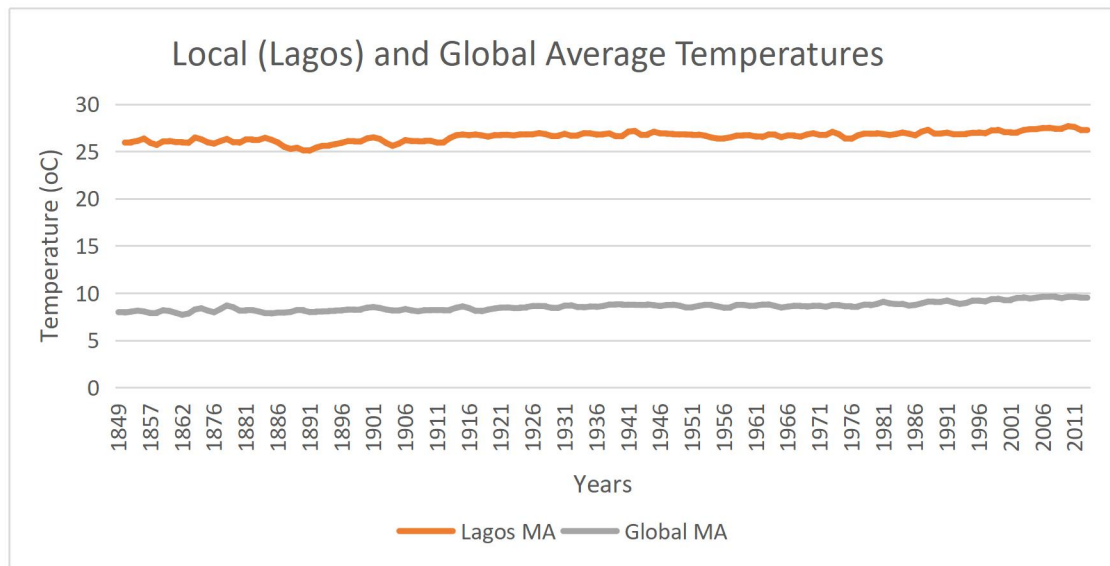
Observations

My observations about my data visualization can be found below as:

1. Lagos state has a greatly higher average temperature compared to the average global temperature.

2. Both the global and Local (Lagos) temperatures seem to have been slightly increasing over the recent years.

4. The temperature of Lagos increased in the year 1913 compared to 1912 whereas the global average temperature for that year remained in close range with the previous year.

5. In years 1910 and 1911 the global temperature remained the same but that of Lagos slightly decreased from 1910 to 1911.

6. The average temperature both globally and locally has been relatively unstable in general.