Exploring Weather Trends

1. What tools did you use for each step?

I used SQL query to extract the data from the database and excel to calculate the moving average and create the line chart.

SQL query:

1- SELECT *
   FROM city_list;

2- SELECT year,avg_temp
   FROM city_data
   WHERE country='Saudi Arabia' AND city='Riyadh';
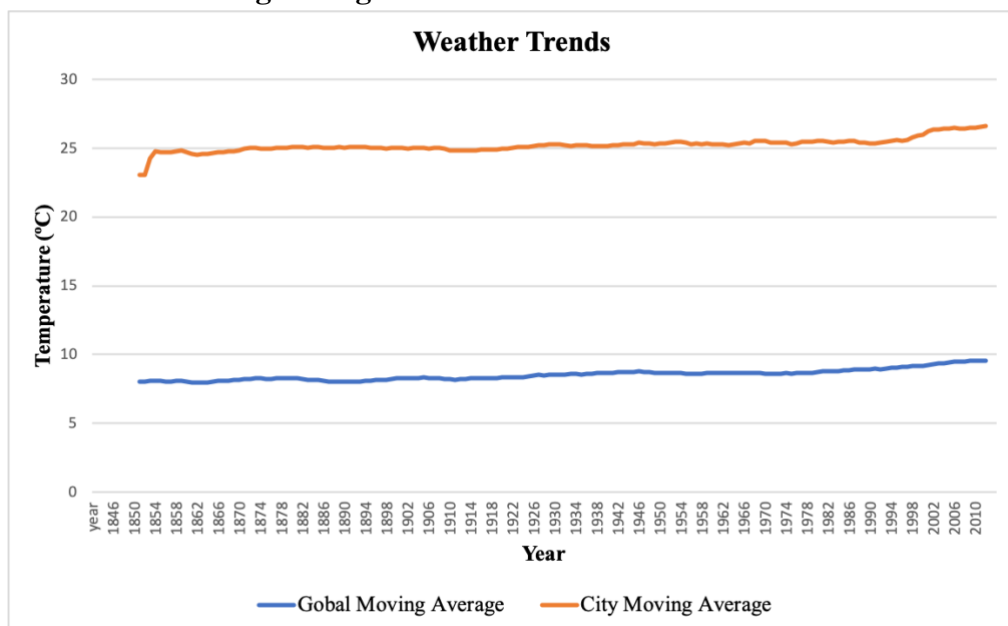
3- SELECT *
   FROM global_data;

2. How did you calculate the moving average?

I calculated the moving average of ten years for both city and global, through using "=AVERAGE(D2:D11)" then I pressed cmd+D and dragged till the last cell.

3. What were your key considerations when deciding how to visualize the trends?

The key consideration was observing the temperature trend of the global and Riyadh city.

4. Line chart of the moving average.

5. Observations.

- ▪ Similarities.

1- Both Riyadh temperature and the global temperature are increasing with the years which mean getting hotter.
2- Generally, the increase in the temperature was harmonious manner without outliers.
3- Both had a slow increase in temperature especially in the middle, with a clear increase at the end of the lines.

- ▪ Differences.

1- Riyadh city is hotter than the global temperature.
2- First years, Riyadh temperature got increased in a fast way comparing to the global.
3- Riyadh temperature is more volatile than global temperature.