Project: Explore Weather Trends

Outline of steps taken to prepare the data and visualization

1. **What tools did you use for each step?**
   a. SQL for data extraction
   b. Excel for calculation of moving average and line chart

SQL query used are:

1. SELECT city
   FROM city_list

   WHERE country = 'India';

2. SELECT year, avg_temp
   FROM city_data

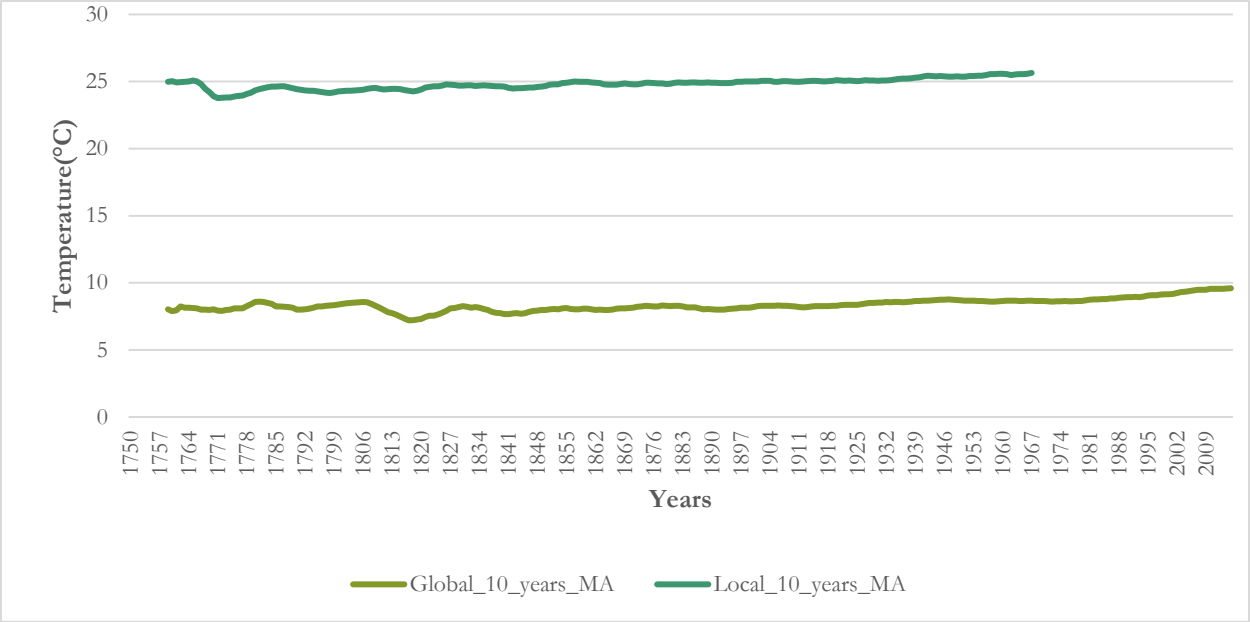
   WHERE city = ‘Bangalore’ and country = 'India';

3. SELECT *
   FROM global_data;

2. **How did you calculate moving average?**
   I calculated the moving average of 10 years by using the command =average(cell2:cell11) and then dragging down till the last value.

3. **What were your key considerations when deciding how to visualize the trends?**
   My key observation was to observe an increase or decrease in moving average temperature v/s year for both global comparing it with local(Bangalore).

Please find the graph attached below.



4. Observations

Here are some similarities and differences observed between the global and local moving average temperature data:

- Initially the trend seems volatile, but due the later part of the graph both display a slow increase trend in temperature per year.
- Both the graphs show increase in average temperature per year, which refers that earth's temperature is rising.
- Local average temperature is observed to be hotter than the global average temperature.
- Global moving average temperature appears to be increasing at faster rate in comparison to local moving average temperature.

5. Reference and Attributes:

1. https://www.excel-easy.com/examples/moving-average.html
2. https://www.dummies.com/software/microsoft-office/excel/how-to-calculate-moving-averages-in-excel/