# EXPLORE WEATHER TRENDS REPORT

STEPS TAKEN TO PREPARE DATA TO BE VISUALIZED:

1. First step in the data analysis process is to extract the city data and global data from the database.
2. I used Structured Query Language(SQL) to complete the step-1.
3. The SQL query I used to extract the city data from the database is
   SELECT *
   FROM city_data
   WHERE city = 'Hyderabad' AND country = 'India';
4. The SQL query I used to extract the global data from the database is
   SELECT *
   FROM global_data;
5. Second step in the process is to export the results of the SQL queries in to CSV files.
6. Third step in the process involves opening the CSV files in Excell as spreadsheets.
7. Fourth step involves calculating the Moving Average for the average temperatures of city data and global data.
8. Fifth step includes creating a Line Chart for both city data and global data.

LINE CHART FOR CITY DATA:
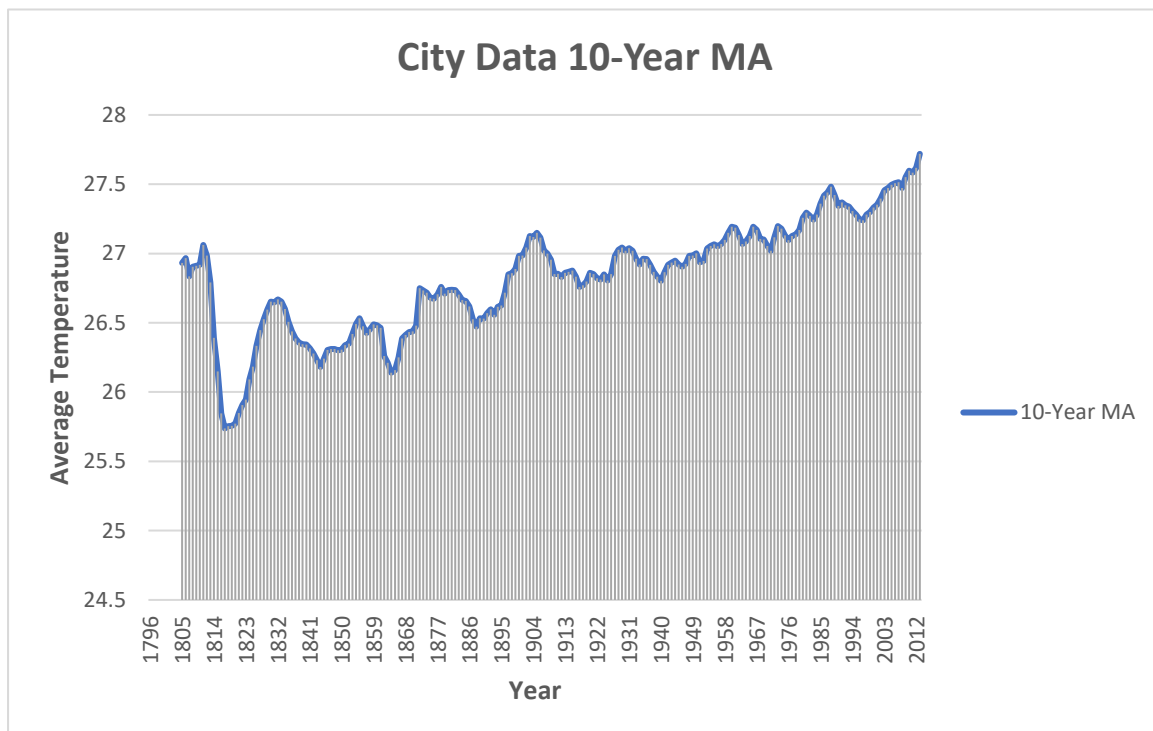
LINE CHART FOR GLOBAL DATA:
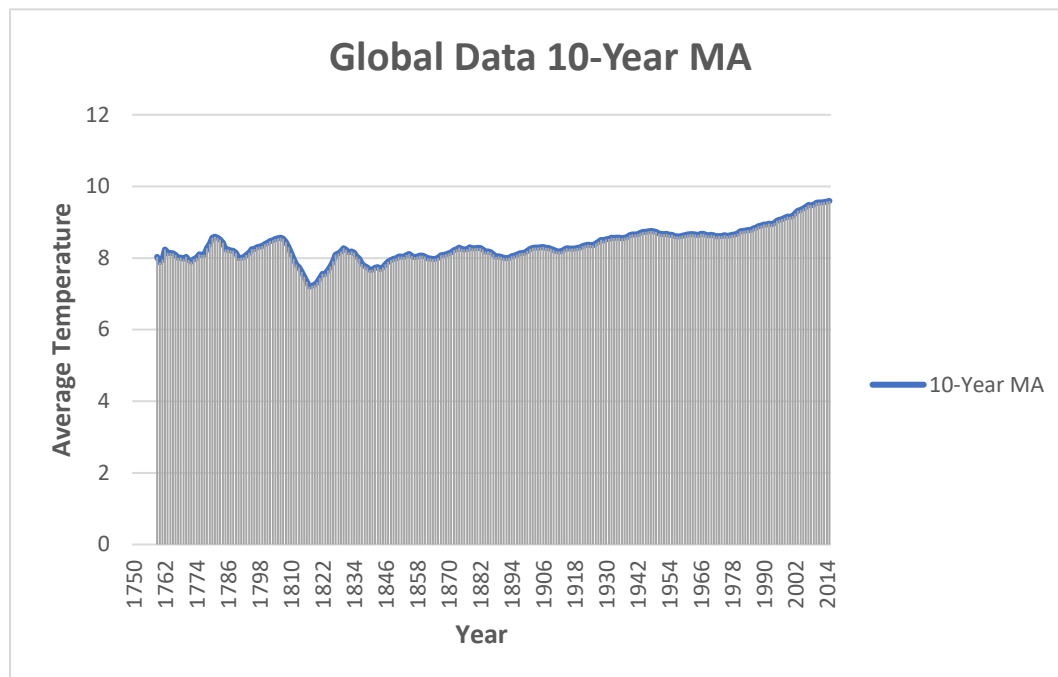
OBSERVATIONS:

1. There is a similarity in the correlation coefficient for both the line charts. The line chart for city data and line chart for global data has a positive correlation.
2. The city which is near to me is hotter on average compared to the global average. Because on average the temperatures of city are higher consistently over the time when compared to the global temperatures.
3. The overall trend looks like the world is getting hotter and this trend has been consistent over last few hundred years.
4. It looks like between the years 1810 and 1820 there was a big drop in both the average city temperatures and average global temperatures.