Explore Weather Trends

Project from Udacity

For

Data Analyst Nanodegree Program

Submitted by Shakti Taneja

Steps taken to prepare the project:

1. Data was extracted from the Udacity Database using SQL. The following commands were used –

   Select * from city_list where country = 'India' ;

   Select * from city_data where city = 'Delhi' ;

   Select * from global_data;

   Two excel files containing Global Temperatures and Delhi Temperatures were downloaded.

2. After the required data was downloaded the moving averages for temperature were calculated in excel using the average function taking 7 observations in order at a time for both the files.
3. A line graph is created to compare the 7 Year MA (Moving Averages) of both the global temperature and the temperature of Delhi using excel sheet.
4. Two different lines indicating the global and local temperatures are shown in the graph titled "Weather Trends" labelling both X and Y axis clearly.
5. While calculating the 7 Year MA the years with no temperatures given are taken as 0 and this shows in the graph clearly when considering the local temperature.
6. After ensuring that the graph is created as correct as possible with no mistakes of any sort we begin writing the Project Report.

Graph
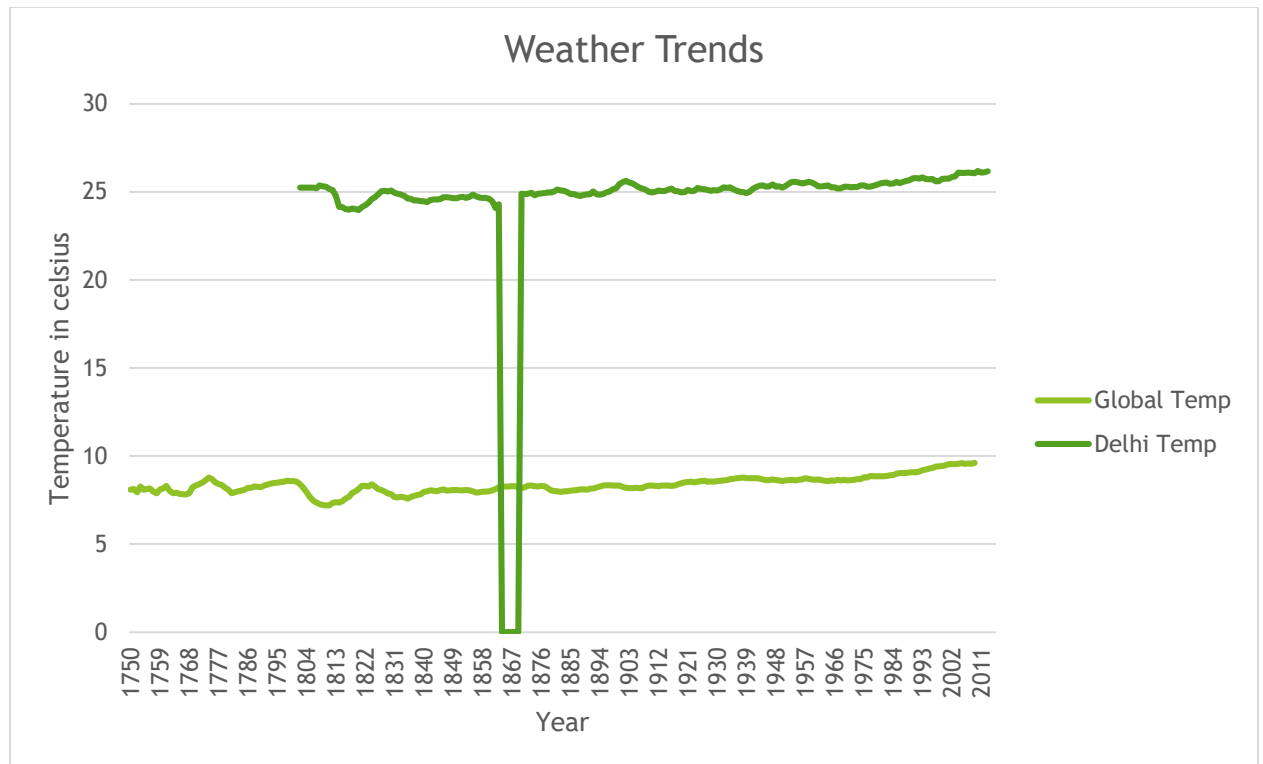
From the graph we can clearly see that global temperature is represented by light green in the graph while local temperature is represented by a darker shade of green in the graph.

Kindly note that the fall in local "Delhi" temperature is due to empty or blank values given for some years which resulted in a zero valuation when calculating the 7 Year MA in the duration 1863 to 1869.

Observations

1. We find from the graph that the local temperature is higher by at least 15-17 degree Celsius.
2. It is only right that the global temperature is around 10 degree Celsius because we also have to consider the temperature around the cold poles as well as the equator region.
3. We note that the local temperature is mostly around 25 degree Celsius and deviates from it by a few degrees only.
4. As we do not know at what time the local and global temperatures have been recorded for every year we can only inference that the temperature in Delhi has been recorded either during the summer or as the summer season is leaving because 25 degree Celsius would be a most occurring temperature.

Thank You