Project: Explore Weather Trends

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Udacity- Data Analyst Nanodegree

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Overview:

Temperature data is provided in the Udacity workspace. I extracted the required data and analyzed the city average temperature with global average temperatures.

Tasks:

1. Identify and check my city from database
2. Extracting data
3. Comparing city data with global data
4. Plotting a line graph
5. Making observation.

Tools used:

- SQL- to write the queries
- MS Excel- to get the 10 year moving average and plot the line graph

Procedure:

1. Extract city_list database and check for the closest city to me
2. Check for details of my city in the city_data database
     Select * from city_data where country='India' and city='Hyderabad'
3. We need to join city_data and global_data for comparison. For proper comparison we will change the column names of avg_temp in both the databases.
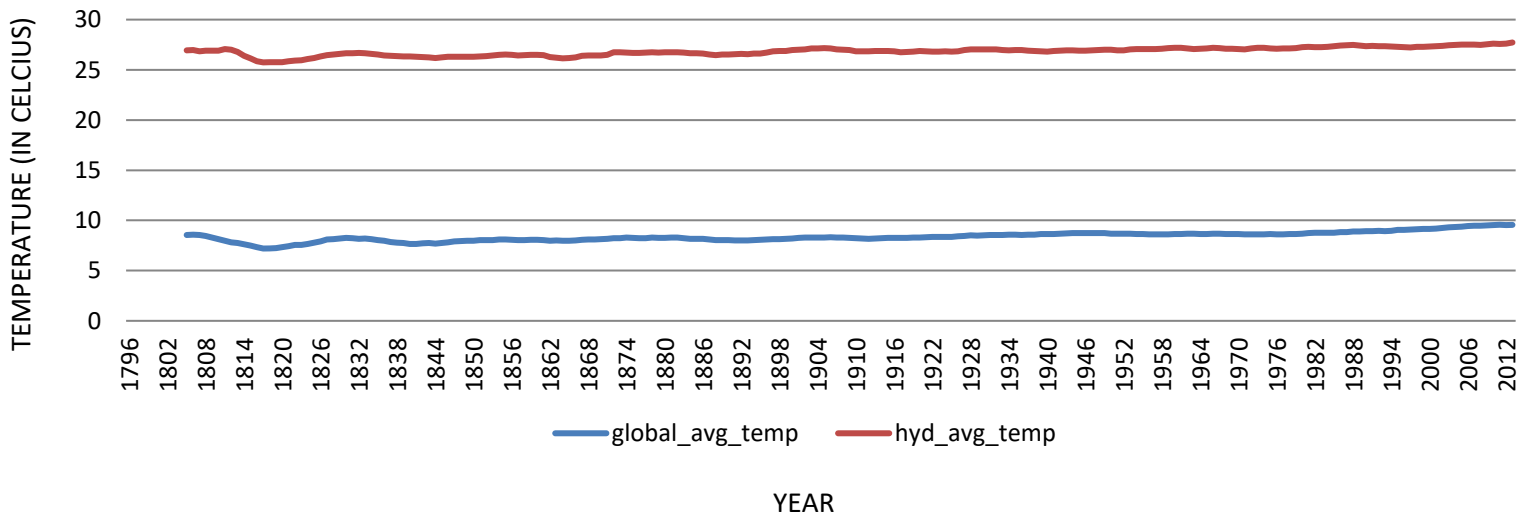   alter table city_data rename column avg_temp to hyd_avg_temp;

alter table global_data rename column avg_temp to global_avg_temp;
    for joining-
        select city_data.hyd_avg_temp,global_data.global_avg_temp,global_data.year from city_data   join global_data on global_data.year=city_data.year where country='India' and city='Hyderabad'
4. Press evaluate and download the csv file
5. I then opened it in MS Excel
6. Then to smooth the data and observe the trends I did 10 year moving average by using the formula

=AVERAGE(B2:B11)

7. I then plotted the line graph.

HYDERABAD TEMPERATURE VS GLOBAL TEMPERRATURE

Observations:

1) From the plot it is visible that Hyderabad is hotter than the average global temperatures.
2) From 1808 to 2012 hyderabad temperature has increased over the years.
3) From 1808 to 2012 global temperature has increased over the years.
4) Hyderabad average temperature is between 25.6 C to 27.7
5) Global average temperature is between 7.2 C to 9.5
6)   The temperature all over the world reduced during 1814-20
7) Finally, Hyderabad is hotter in general and the temperature is increasing year by year.