

Exploring Weather Trends

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STEP1-Gathering of Data:

We are given with 3 databases in our workspace:

1)city_list-List of all the cities and countries. I used this dataset to find the list of cities in my country

SQL COMMAND:

```
select * from city_list where country='India'
```

2)city_data-Average temperature for each city year by year.I will choose Delhi as my city as that is where I live so I wrote the sql and downloaded the csv.

SQL COMMAND:

```
select * from city_data where city='Delhi'
```

And then I downloaded this csv

3)global_data- I downloaded this as csv.

SQL COMMAND:

```
select * from global_data
```

STEP2 -Assessing of Data:

I observed quite a few things:

1)In global_data the year range is different than city_data

2)Some values are missing in city_data

3)We also need to merge the files

STEP3- Cleaning of Data:

1)I ran another SQL command to download global_data to match the range with my delhi data

SQL COMMAND:

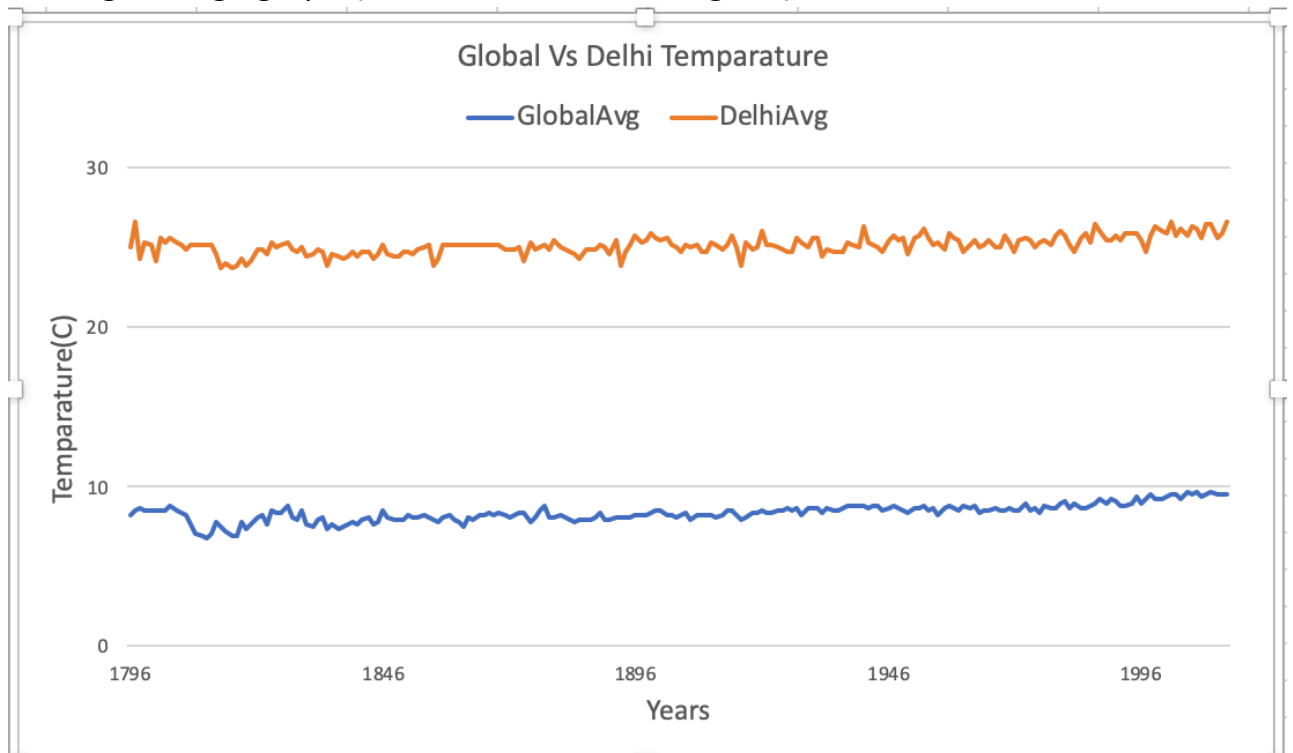
```
select * from global_data where year between 1796 and 2013
```

2)I merged the 2 csv into one(I am using Microsoft Excel)

3)I filled the missing values in city_data with the mean(25.17)

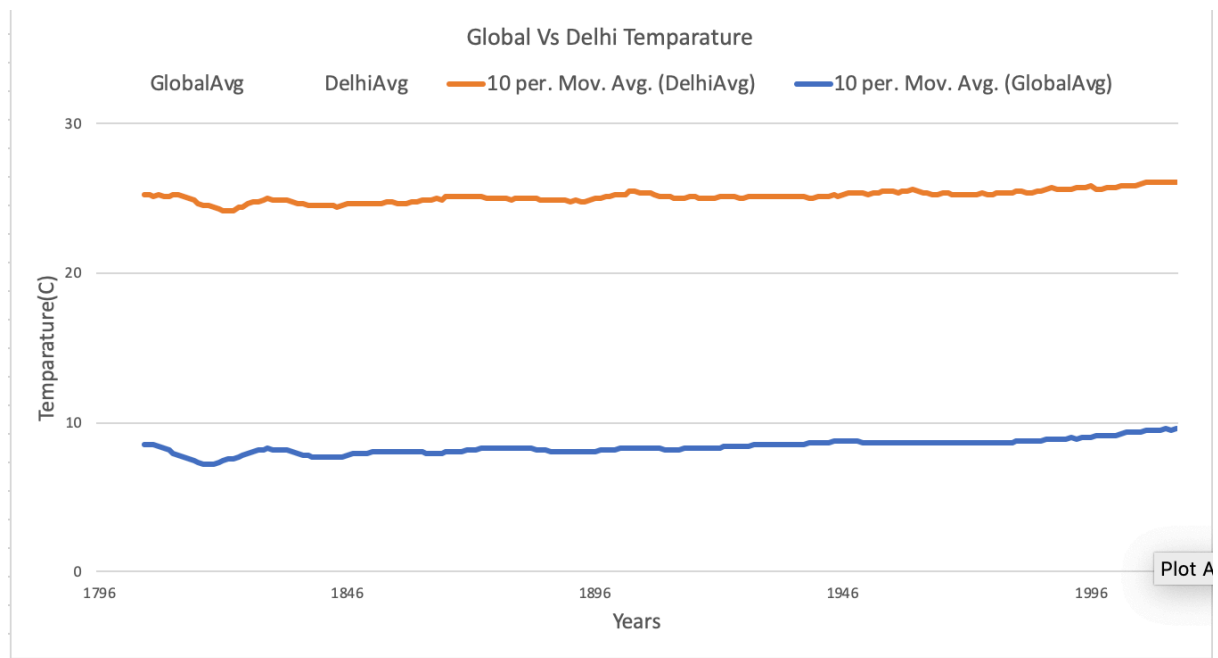
STEP4- Analysis of data:

1)Making the line graph in excel.We find that it is too volatile .So we will plot a moving average graph.(Added the titles and legend)



2)Making a moving average graph

Since the data is spread over 2 centuries the period for moving average was set as 10



STEP 5:CONCLUSIONS:

- 1)Delhi temperature is higher than global temperature but they rose at almost equal levels
- 2)Point one implies that the Delhi temp and global temp are strongly correlated
- 3)Temperature levels around the globe are rising throughout the centuries
- 4)The temperature difference between global and delhi temperature remains approx. the same hence we can use global temperature in order to estimate our local temperature.
- 5)There is a temperature drop in Delhi in 1900's where is there is no such drop globally.