

Analyzing local and global temperature data and comparing the temperature trends in Nashville, TN to overall global temperature trends.

- **Used Tools**

After extracting data in SQL, Microsoft Excel was used for sorting data

The query I used to extract data in SQL

```
select * from city_list where country='United States'
```

```
select * from global_data
```

```
select a.* from city_data a where city='Nashville'
```

and each time I downloaded the csv file and in excel I matched the required data

- **Moving average:**

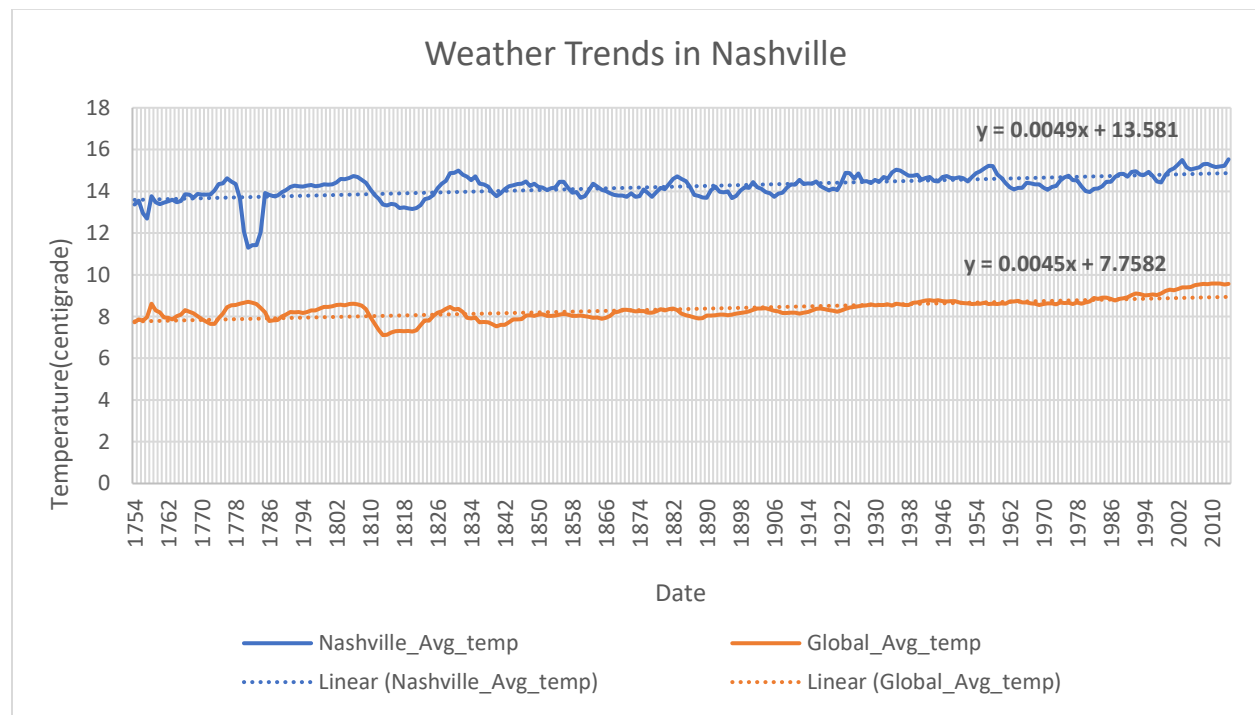
Studies have shown every five years the behavior of weather will change, I have taken 5 years as moving average, I did it in excel as instruction.

For each year temp I used the average of 5 years before and the selected year.

- **Key consideration**

What I considered in my calculation is at first, I haven't data before 1750 for global temp even though I had for region temp. I didn't consider these data for my calculation. Second as I described, 5 years the average of changing weather, I take this for moving average.

- **Line Chart**



- **Observation:**

1- The trend of change of temperature in Nashville is the same as trend of global temp when we have decrease in temp of year (1817) in Global Temp the same happens for the Nashville

2- Average Temp shows that weather in Nashville going to hotter as Global.

3- Different with temp of Nashville to the global temp during these years seems constant.

4- We didn't have data for year 1780 so it causes that by taking 5 years average in Nashville it shows decrease. However, we have increase in global average temp. there is a way to place some number as an average we ha for future and last year in this time but for this project I didn't develop any value.

5- Correlation coefficient between two set of data (average temp in Nashville and global average temp) is 0.56 how they close to one it shows there is good correlation between them, but this number shows there is not any good correlation between them.

6- The average of temperature in Nashville is 14.23 against average of temperature of global as 8.53 which shows the Nashville is hotter than global average.