

Exploring Weather Trends

What tools did you use for each step? (Python, SQL, Excel, etc)

- Used SQL and Excel to complete Weather trends project

I have written following SQL queries to extract data from Database:

- `SELECT * FROM City_list`
- `SELECT * FROM City_data`
And
`SELECT * FROM city_data`
Where City = 'Bangalore'
- `SELECT * FROM Global_data`

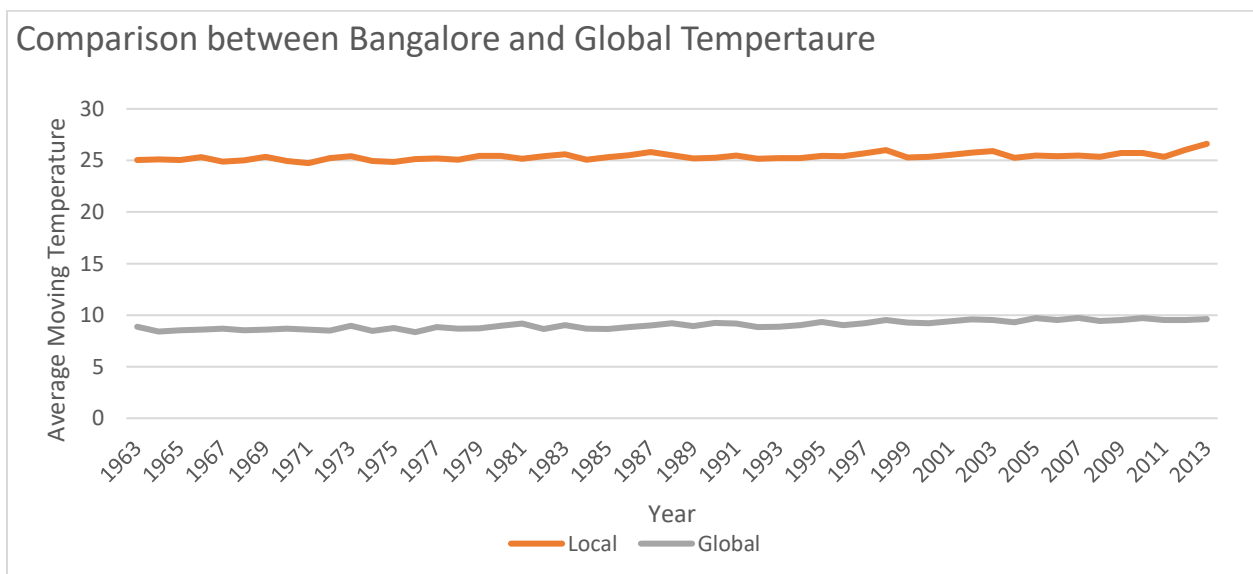
Steps used to develop project:

- ✓ Used Excel to open CSV files
- ✓ Combined both City data and Global data together
- ✓ Calculated moving average
- ✓ Plotted the following graph on the data (as shown below)

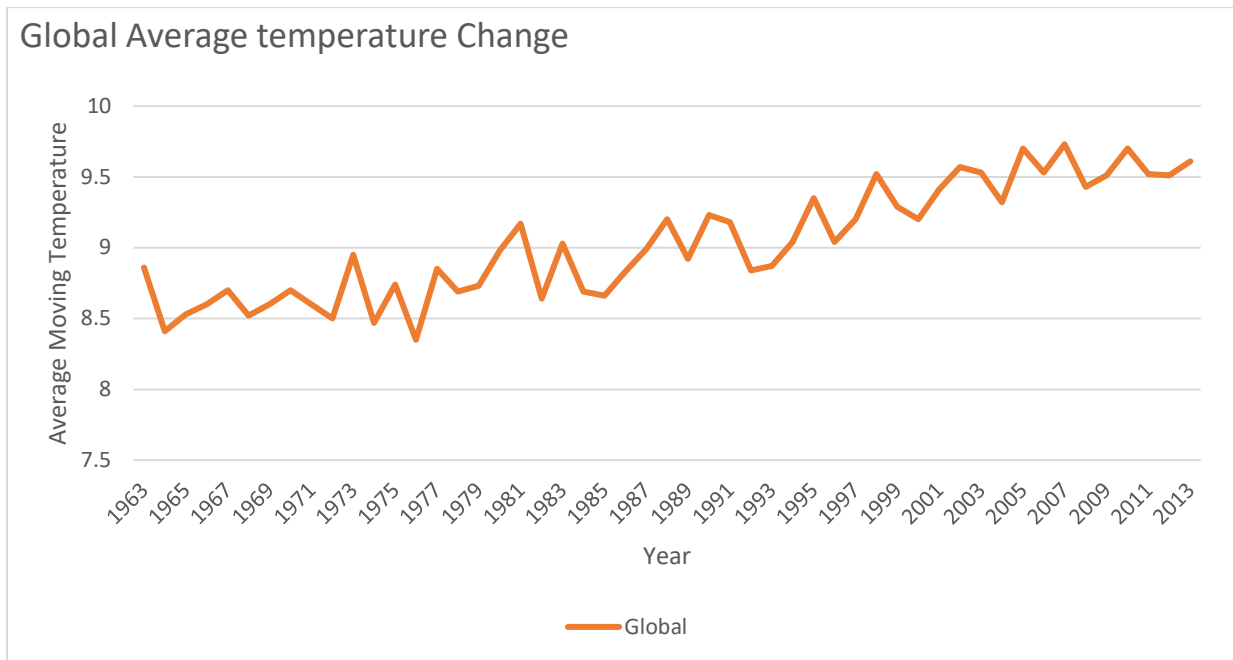
How did you calculate the moving average?

- Using Average() function

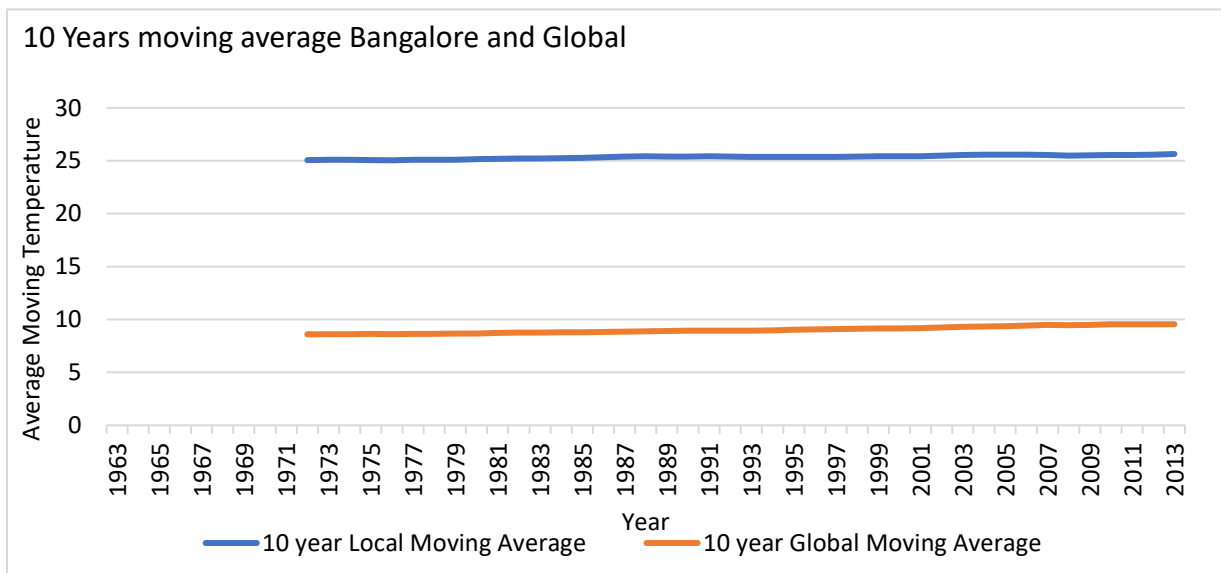
The first chart shows a comparison between the global and local (Bangalore) temperature set across the last 50 years (refer sheet 2)



Below the global average temperature range of last 50 years to view a trend for the entire dataset (refer sheet 2)



Below graph showing 10 years moving average between local (Bangalore) and Global for last 50 Years (refer sheet 3)



Observations:

1. Local (Bangalore) weather has been warmer than the global average in the past years.
2. Total global temperature is 9.03°C (refer sheet 3)
3. Temperature of global is rising every year.
4. Bangalore average temperature is 25.37°C (refer sheet 3)
5. The trend between Global and local (Bangalore) is consistent from more than 50 years.

What's the correlation coefficient?

Correlation Coefficient between Local and Global temperature is 0.67 (refer sheet 4)

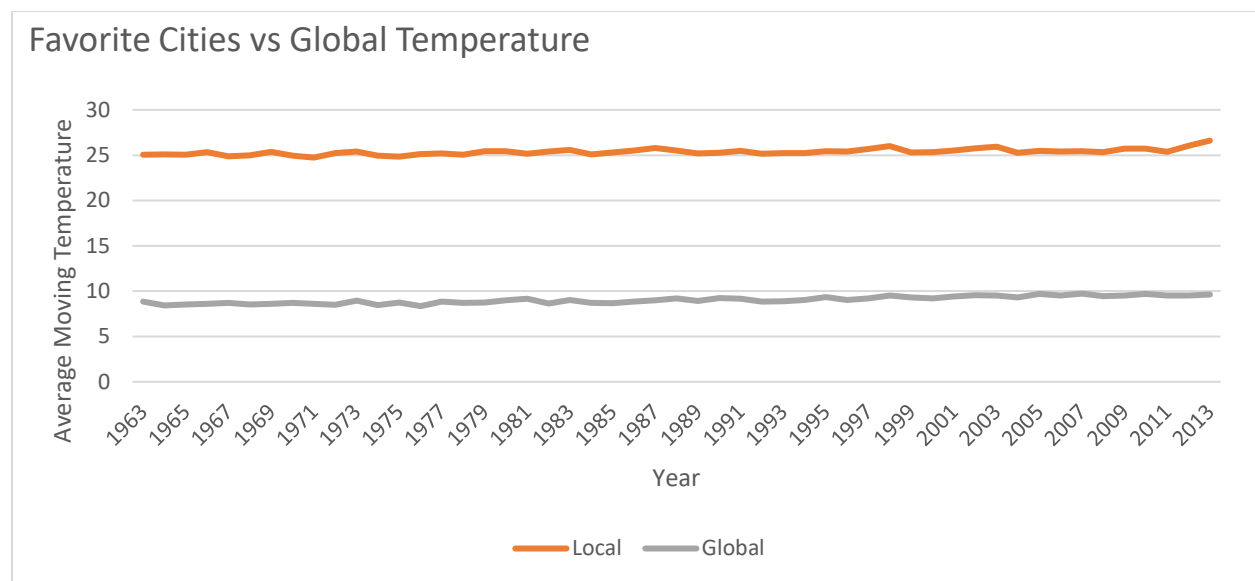
Can you estimate the average temperature in your city based on the average global temperature?

Average temperature in Bangalore based on Average global temperature is 9.03°C (refer sheet 4)

Multiple cities - Add your favorite cities from around the globe to your visualization. What do you learn about them?

Cities selected: Bangalore, Delhi, Indore, Pune

Temperature of all favorite cities always more than global. (refer sheet 4)



Conclusion:

The world's temperature is getting hotter globally or locally as well.