

## Exploring Weather Trends

- The tool that I used to open CSV file is Excel
- **Extracting global data:**

The resulting data 266 results from 1750 to 2015 have been extracted to CSV file format

Input

HISTORY ▾

MENU ▾

SCHEMA 

city\_data ▾

city\_list ▾

global\_data ▾

1 select \*

2 from global\_data

3 ;

4

Success!

EVALUATE

Output 266 results

 Download CSV

### Extracting Riyadh's data:

The resulting data 171 results from 1843 to 2013 have been extracted to CSV file format

Input

HISTORY ▾

MENU ▾

SCHEMA 

city\_data ▾

city\_list ▾

global\_data ▾

1 select \*

2 from city\_data

3 where country = 'Saudi Arabia' and city='Riyadh';

4

Success!

EVALUATE

Output 171 results

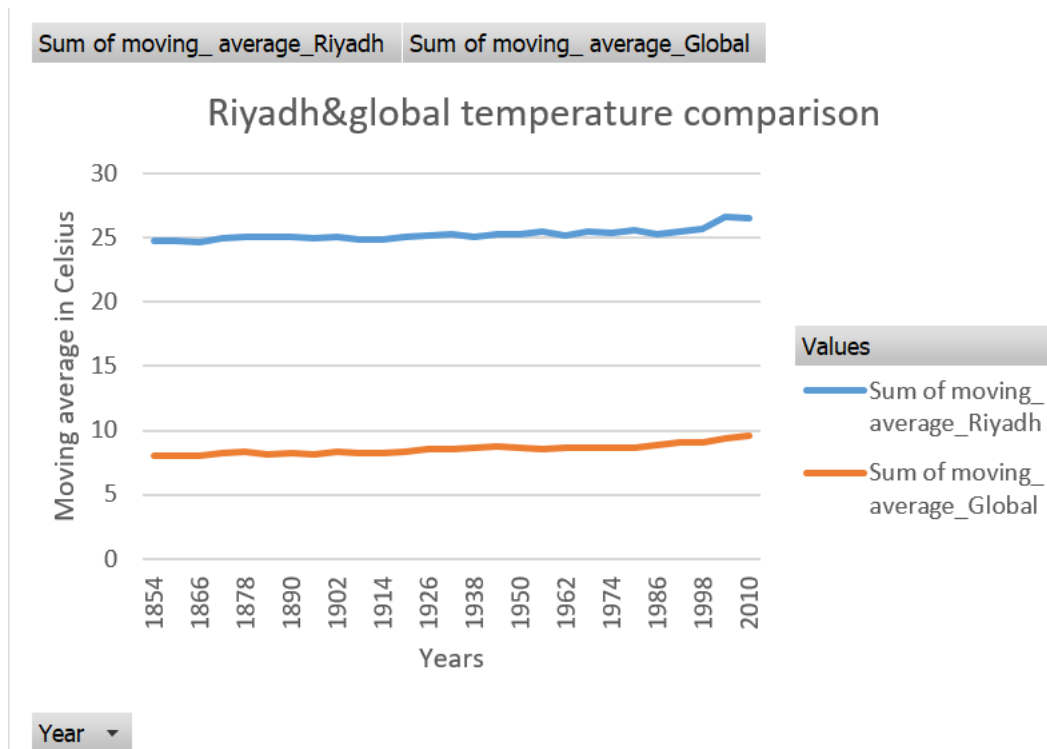
 Download CSV

## Note:

In order to smooth out the lines, making trends more observable, I will be comparing *moving average* rather than the yearly averages. To remove null values and get more trusted comparison, I decided to make the comparisons from 1848 until 2010. I calculated *moving average* by getting the average of every 7 years (ex: to get the get moving average for 2010 I calculated the average for the period for 2004 to 2010). The calculations are shown here:

	A	B	C
1	Year	moving_average_Riyadh	moving_average_Global
2	1854	24.74714286	8.055714286
3	1860	24.76714286	8.055714286
4	1866	24.61428571	7.99
5	1872	25.00857143	8.274285714
6	1878	25.05571429	8.325714286
7	1884	25.11857143	8.181428571
8	1890	25.04142857	8.27
9	1896	25.01428571	8.091428571
10	1902	25.11857143	8.345714286
11	1908	24.86714286	8.194285714
12	1914	24.86285714	8.261428571
13	1920	25.02714286	8.328571429
14	1926	25.15857143	8.504285714
15	1932	25.28	8.597142857
16	1938	25.07857143	8.615714286
17	1944	25.31428571	8.784285714
18	1950	25.29142857	8.66
19	1956	25.49428571	8.568571429
20	1962	25.19714286	8.662857143
21	1968	25.51571429	8.624285714
22	1974	25.39571429	8.62
23	1980	25.62571429	8.687142857
24	1986	25.28	8.857142857
25	1992	25.46714286	9.027142857
26	1998	25.71571429	9.122857143
27	2004	26.59	9.405714286
28	2010	26.49857143	9.56

- Here is a line chart the compare moving average between Riyadh and global Temperature. In the y-axis we find temperature moving average in Celsius as a unit and in the x-axis we find the years:



- Some Observations:**

- Riyadh's temperature on average has been consistently different compared to global temperature. Riyadh on average is way hotter than global average its around 25 for Riyadh and 9 for the global.
- On average the changes of Riyadh's temperature are similar to the changes of global temperature.
- They are both getting hotter, but a bit more for Riyadh. The trend has been consistent last few hundred years.
- The last 20 years both global and Riyadh temperature are getting hotter higher than ever, where global is getting closer to 10 Celsius and Riyadh to 26.5 Celsius.