Exploring Weather Trends Project

Outlines:

- In this project, I used SQL to extract data and Excel to represent the line chart.
- I used the "AVERAGE" function in the Excel to calculate moving average.
- I considered moving average to be for every 5-years because almost there is of no big difference in temperatures for every 5 years.

Used queries:

Here is the query that I used to extract Riyadh data from city_data table

```
select *
from city_data
where city = 'Riyadh';
```

Here is the query to extract global temperature

```
select *
from global_data;
```

Here is what I used to combine both the local temperature of Riyadh city and the global temperature; which makes dealing with these data easy.

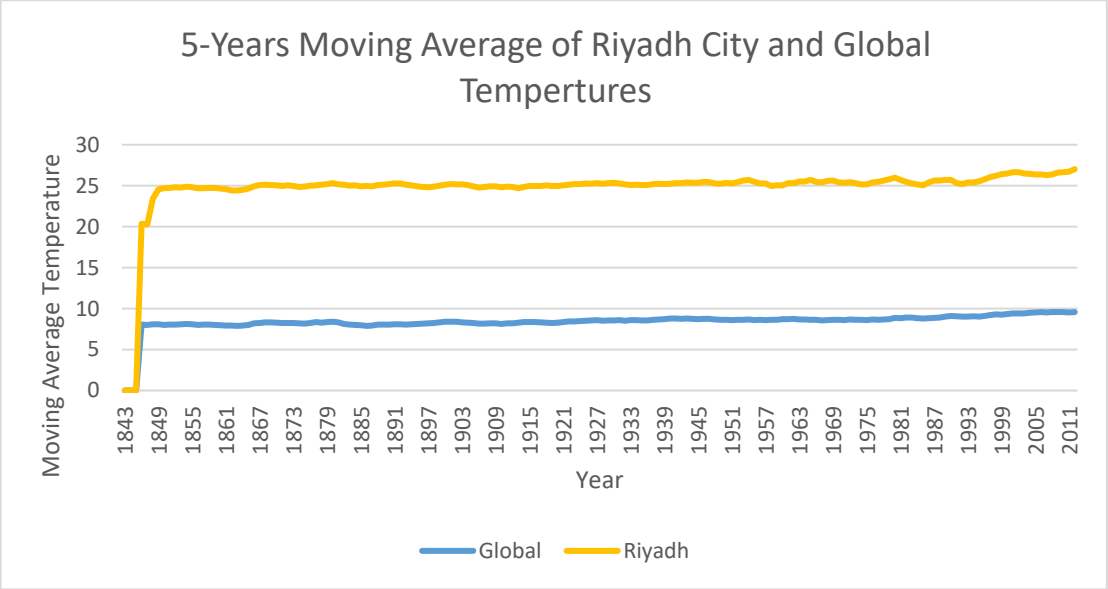
```
select global_data.year, global_data.avg_temp as global_temp,
        city_data.avg_temp as local_temp
from global_data
join city_data on global_data.year = city_data.year
where city = 'Riyadh';
```

Calculating Moving Average:

Here is how I calculate the moving average.

	A	B	C	D	E
1	year	Global_temp	Local_temp	Global	Riyadh
2	1843	8.17	24.74		
3	1844	7.65	15.45		
4	1845	7.85	20.82		
5	1846	8.55			
6	1847	8.09		8.062	= AVERAGE(C2:C6)
7	1848	7.98	24.56	8.024	20.27666667
8	1849	7.98	24.8	8.09	23.39333333
9	1850	7.9	24.34	8.1	24.56666667
10	1851	8.18	25.03	8.026	24.6825
11	1852	8.1	24.85	8.028	24.716
12	1853	8.04	24.93	8.04	24.79
13	1854	8.21	24.72	8.086	24.774
14	1855	8.11	24.92	8.128	24.89
15	1856	8	24.57	8.092	24.798
16	1857	7.76	24.26	8.024	24.68
17	1858	8.1	25.01	8.036	24.696
18	1859	8.25	24.95	8.044	24.742
19	1860	7.96	24.94	8.014	24.746
20	1861	7.85	24.13	7.984	24.658
21	1862	7.56	23.77	7.944	24.56

Line Chart:



- From the chart, it is obvious that the local temperatures of Riyadh city are too way higher than the global temperatures.
- Over all temperatures for both local and global are slowly increasing over years.
- The global temperatures seem like increases faster than Riyadh temperatures.
- There is a huge gap between Riyadh city temperatures and the global temperatures.