

PROJECT 1

Exploring Weather Trends

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✓ **What tools did you use for each step?**

I used excel after this sql statement :

- **Global data :** Select * from global_data ;
- **Local data (Riyadh city):** Select * from city_data where city ='Riyadh';

✓ **How did you calculate the moving average?**

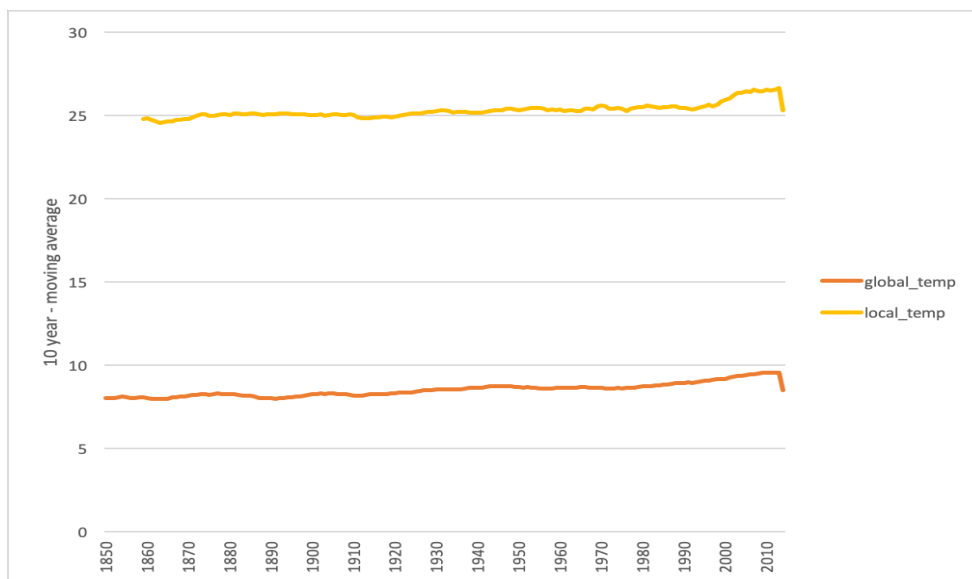
I used 10 years moving average as showing in the picture below .

year	city	country	avg_temp
1843	Riyadh	Saudi Arabia	24.74
1844	Riyadh	Saudi Arabia	15.45
1845	Riyadh	Saudi Arabia	20.82
1846	Riyadh	Saudi Arabia	
1847	Riyadh	Saudi Arabia	
1848	Riyadh	Saudi Arabia	24.56
1849	Riyadh	Saudi Arabia	24.8
1850	Riyadh	Saudi Arabia	24.34
1851	Riyadh	Saudi Arabia	25.03
1852	Riyadh	Saudi Arabia	24.85
1853	Riyadh	Saudi Arabia	24.93
1854	Riyadh	Saudi Arabia	24.72
1855	Riyadh	Saudi Arabia	24.92
1856	Riyadh	Saudi Arabia	24.57
1857	Riyadh	Saudi Arabia	24.26
1858	Riyadh	Saudi Arabia	25.01
1859	Riyadh	Saudi Arabia	24.95
1860	Riyadh	Saudi Arabia	24.94
1861	Riyadh	Saudi Arabia	24.13
1862	Riyadh	Saudi Arabia	23.77
1863	Riyadh	Saudi Arabia	24.28
1864	Riyadh	Saudi Arabia	25.03
1865	Riyadh	Saudi Arabia	25.23
1866	Riyadh	Saudi Arabia	24.92
1867	Riyadh	Saudi Arabia	25.22
1868	Riyadh	Saudi Arabia	25
1869	Riyadh	Saudi Arabia	25.3

✓ **What were your key considerations when deciding how to visualize the trends?**

The Increase and decrease in 10 years moving average. There was missing data that's why I started from year 1850-2013.

- **Line chart with local and global temperature trends**



- **At least four observations about the similarities and/or differences in the trends**

similarities :

- Both global and local are increasing in temperature through the years .
- In 2013: there was the highest point showing temperature for both local and global as the table below.

differences :

- local temperature is very high than the global which means it's the hottest city.
- The table below shows the different in temperature though the years .

	global_temp	local_temp
Max	9.56	26.65
min	7.97	24.56
Average	8.53	25.28

- **What does the overall trend look like? Is the world getting hotter or cooler? Has the trend been consistent over the last few hundred years?**

There is a decrease in temperature locally and globally, but still, Riyadh city will never decrease in temperature, and will always be the hottest city, Because of its geographical location in the middle of the desert