

Project of Explore Weather Trends

Extracting the data:

I used the SQL Workspace to extract data.
Then download the results and used excel application to make schedule and calculate moving average directly. And the last I make a Graph.

- Riyadh_data - This contains the average Riyadh temperatures by year (°C):

Input		HISTORY ▾	MENU ▾
SCHEMA	↻	<pre>1 select year, avg_temp 2 from city_data 3 where city = 'Riyadh'</pre>	
city_data	▾		
city_list	▾		
global_data	▾		
		Success!	EVALUATE
Output		171 results	Download CSV
year	avg_temp		
1843	24.74		
1844	15.45		
1845	20.82		
1846			
1847			

- global_data - This contains the average global temperatures by year (°C):

Input		HISTORY ▾	MENU ▾
SCHEMA	↻	<pre>1 select year, avg_temp 2 from global_data</pre>	
city_data	▾		
city_list	▾		
global_data	▾		
			EVALUATE
Output		266 results	Download CSV
year	avg_temp		
1750	8.72		
1751	7.98		
1752	5.78		

- Moving Average calculation was found using the sum of temperature average the past 5 years before the current year divided by 5.

Global	Riyadh	Year	Global	Riyadh
avg_temp			5 Years avg_Moving	
7.91	25.83	1980		
8.09	25.95	1981		
8.32	24.62	1982		
7.97	24.85	1983		
8.02	25.05	1984		
8.07	25.3	1985	=(C9+C8+C7+C6+C5)/5	

We achieved some conclusions are made by monitoring the annual temperature for (Riyadh) city and comparing it with global temperature. We noted following:

- As we can see in the line chart that the average temperature change until 2013 in Riyadh is the same as the global average which is 19 degrees.
- Secondly, the global temperature has not change in the last 20 years where's in Riyadh it has increased by 2 degrees.
- Thirdly, it shows that the temperature in Riyadh keeps changing increasingly.
- Fourth, the global temperature is somewhat stable as shown in the line chart

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

