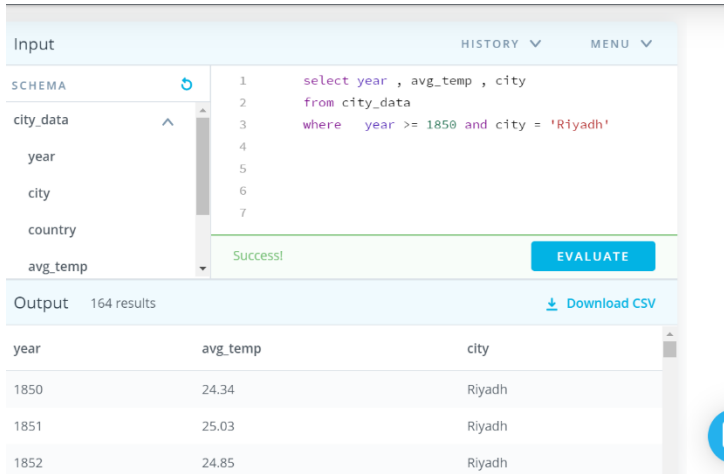


- Extracting the data from SQL:



Input

SCHEMA

city_data

year

city

country

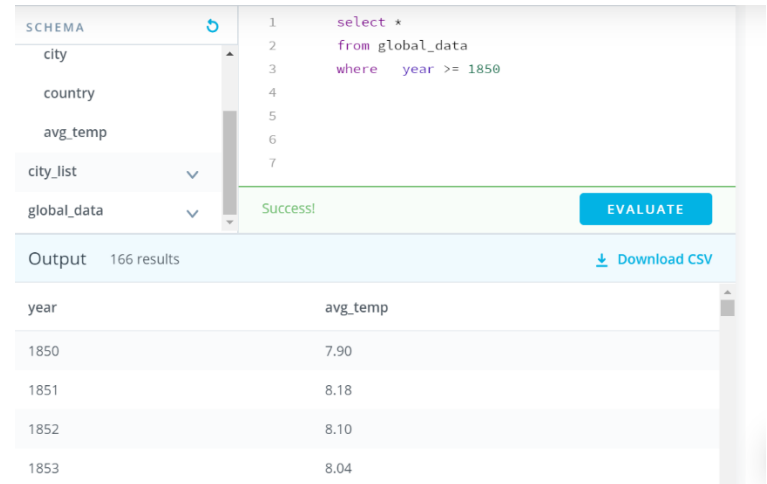
avg_temp

Output 164 results

Download CSV

year	avg_temp	city
1850	24.34	Riyadh
1851	25.03	Riyadh
1852	24.85	Riyadh

Figure 1: SQL query for extracting the data of nearest city.



SCHEMA

city

country

avg_temp

city_list

global_data

Output 166 results

Download CSV

year	avg_temp
1850	7.90
1851	8.18
1852	8.10
1853	8.04

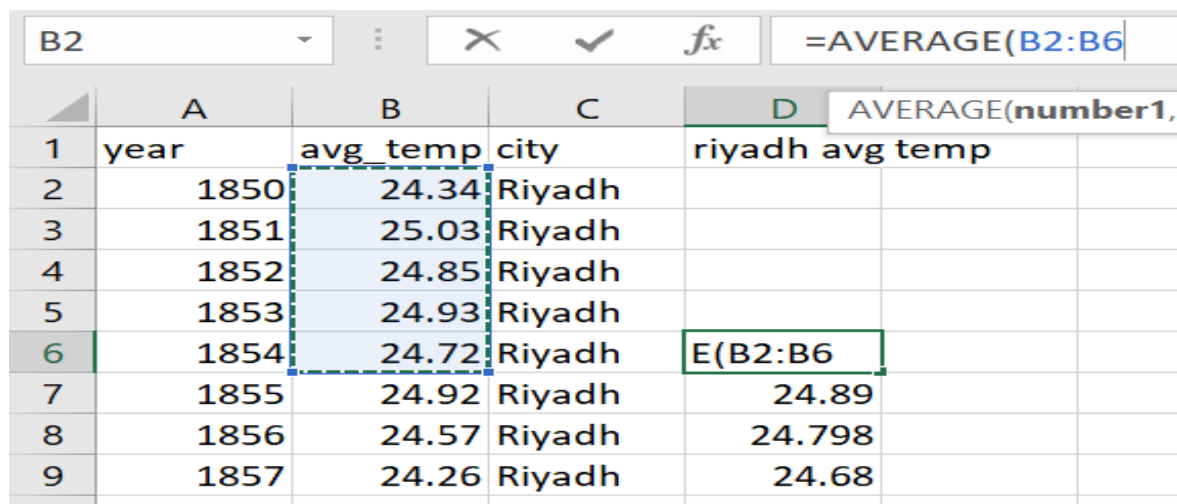
Figure 2: SQL query for extracting the global data.

The two images above display the first steps, which is the data extraction.

I preferred to start from 1850 since there is a two data missing in 1846 and 1847 and it might influence the accuracy of the results.

- Moving average:

Moving averages have calculated within 5 years in the interval from 1850 to 2013, which is appropriate period in our case.



B2

X

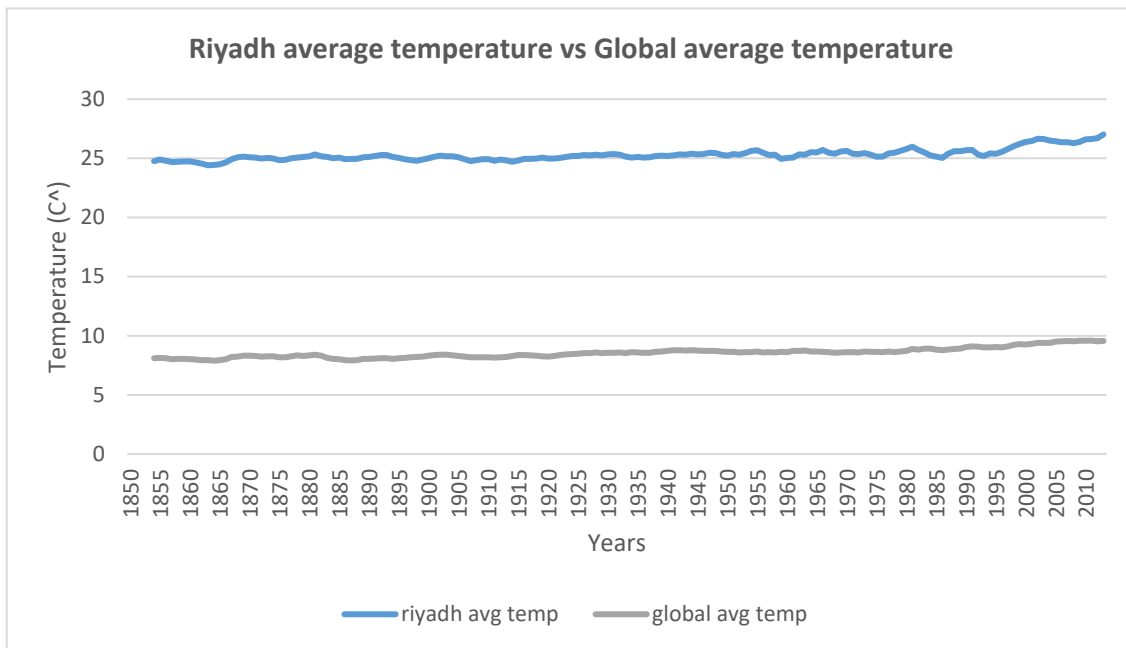
✓

fx

=AVERAGE(B2:B6

	A	B	C	D
1	year	avg_temp	city	riyadh avg temp
2	1850	24.34	Riyadh	
3	1851	25.03	Riyadh	
4	1852	24.85	Riyadh	
5	1853	24.93	Riyadh	
6	1854	24.72	Riyadh	E(B2:B6
7	1855	24.92	Riyadh	24.89
8	1856	24.57	Riyadh	24.798
9	1857	24.26	Riyadh	24.68

Figure 3: Formula that we used to calculate the moving average within 5 years.



- Observations:

1. From the chart above, we can conclude that Riyadh city has higher Temperature in comparison with the global temperature.
2. The temperature of last 20 years in Riyadh city and globally tend to be hotter than usual. (Global warming effect).
3. The temperature trend line of Riyadh and globally indicate that the world getting hotter.
4. The temperature of the world (including Riyadh city) tend to be consistent in the interval from 1850 to 1980. After that, the fluctuations started to occur in Riyadh city and the global temperature increased gradually.

