Step 1:

So, first of, the data must be extracted using SQL. As you can see in figure 1, the data was extracted using "select year, avg_temp from global_data where year >= 1861". This SQL query is used for the global temperature. A similar SQL query was used for the Mecca temperature as seen in figure 2.

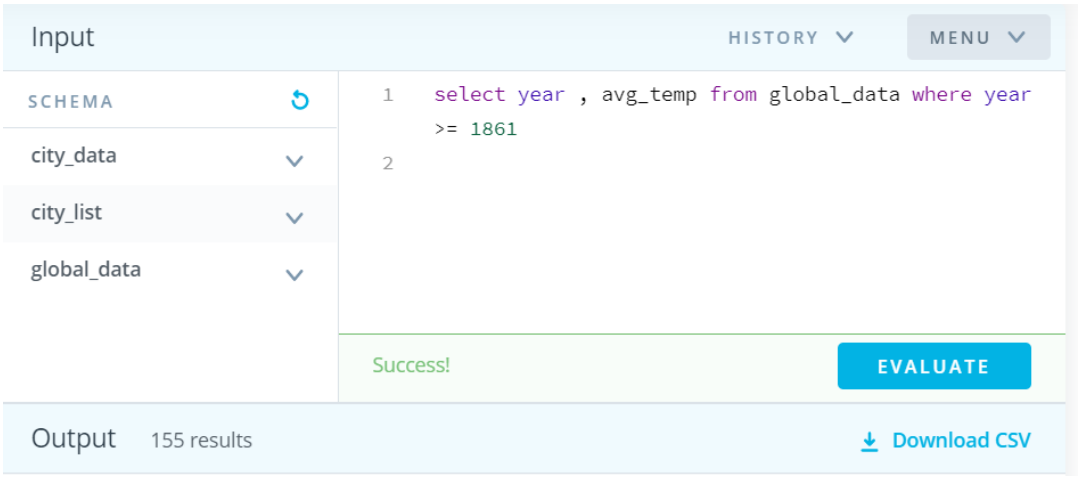
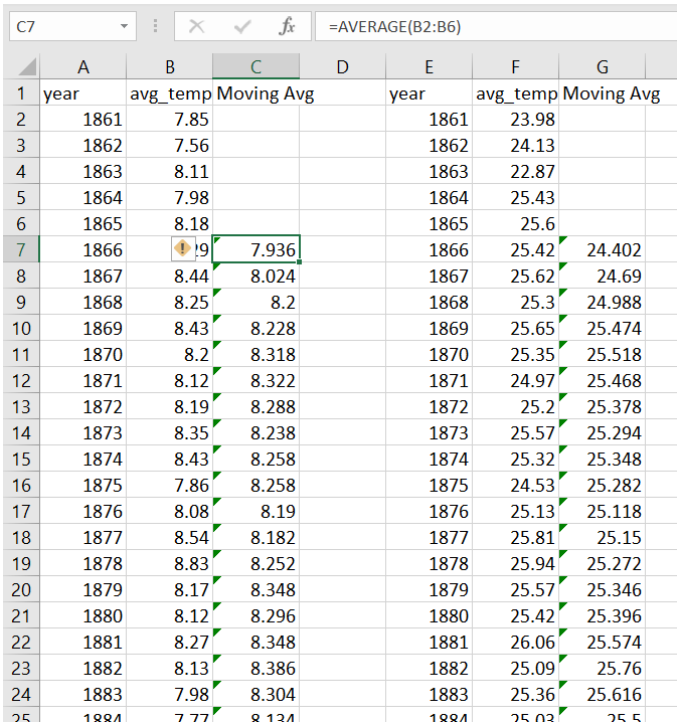


Figure 1 SQL query for global temperature

Figure 2 SQL query for Mecca temperature

Step 2:

The extracted data must be processed by a spreadsheets software, Microsoft Excel was used in calculating the moving average by the built-in average function as seen in figure 3. Then select the cell with the calculated moving average and use the series fill to calculate it for the whole data set and repeat for the Mecca data.



C7 =AVERAGE(B2:B6)

	A	B	C	D	E	F	G
1	year	avg_temp	Moving Avg		year	avg_temp	Moving Avg
2	1861	7.85			1861	23.98	
3	1862	7.56			1862	24.13	
4	1863	8.11			1863	22.87	
5	1864	7.98			1864	25.43	
6	1865	8.18			1865	25.6	
7	1866	9	7.936		1866	25.42	24.402
8	1867	8.44	8.024		1867	25.62	24.69
9	1868	8.25	8.2		1868	25.3	24.988
10	1869	8.43	8.228		1869	25.65	25.474
11	1870	8.2	8.318		1870	25.35	25.518
12	1871	8.12	8.322		1871	24.97	25.468
13	1872	8.19	8.288		1872	25.2	25.378
14	1873	8.35	8.238		1873	25.57	25.294
15	1874	8.43	8.258		1874	25.32	25.348
16	1875	7.86	8.258		1875	24.53	25.282
17	1876	8.08	8.19		1876	25.13	25.118
18	1877	8.54	8.182		1877	25.81	25.15
19	1878	8.83	8.252		1878	25.94	25.272
20	1879	8.17	8.348		1879	25.57	25.346
21	1880	8.12	8.296		1880	25.42	25.396
22	1881	8.27	8.348		1881	26.06	25.574
23	1882	8.13	8.386		1882	25.09	25.76
24	1883	7.98	8.304		1883	25.36	25.616
25	1884	7.77	8.134		1884	25.03	25.5

Figure 3 Calculating Moving Average

Step 3

In the last step you have to make the chart showcasing the Mecca Vs Global Temperature. First you should select the columns to use in the graph, then you should go to insert-insert line chart and edit the chart with the required data.

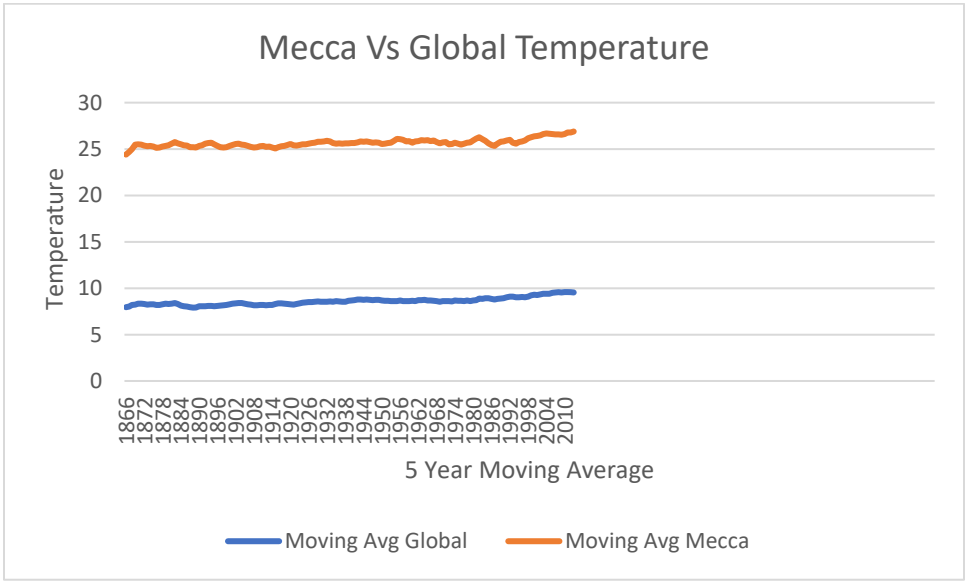


Figure 4 Mecca Vs Global Temperature

Observations

1. The average temperature in Mecca is higher than the global average.
2. The average temperature in Mecca has increased significantly in the last 10 years.
3. The global average temperature is growing steadily.
4. Since the 1990 the global average temperature has increased slightly.