Explore Weather trends

Data Analytics -Nano degree Project 1

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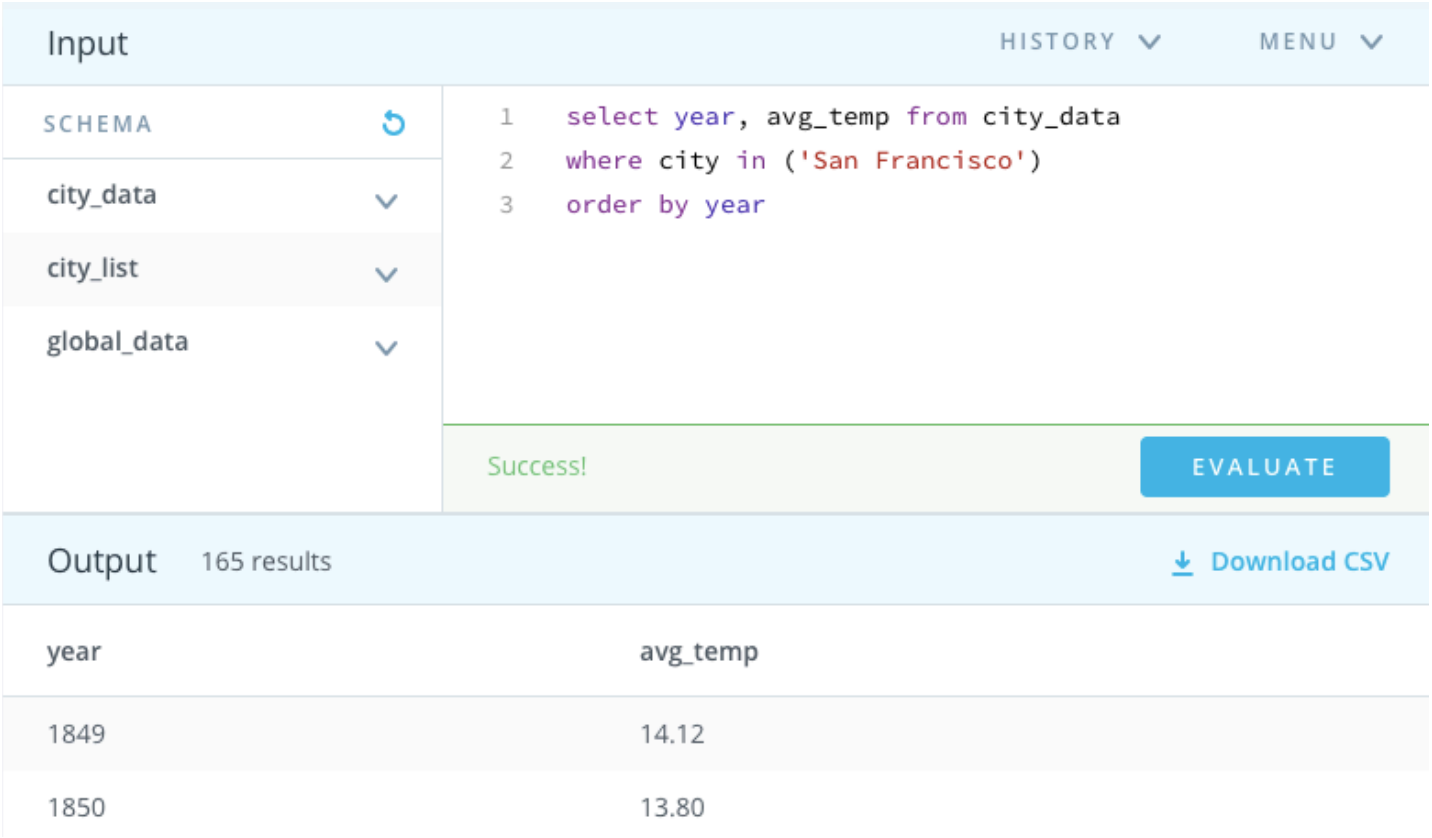
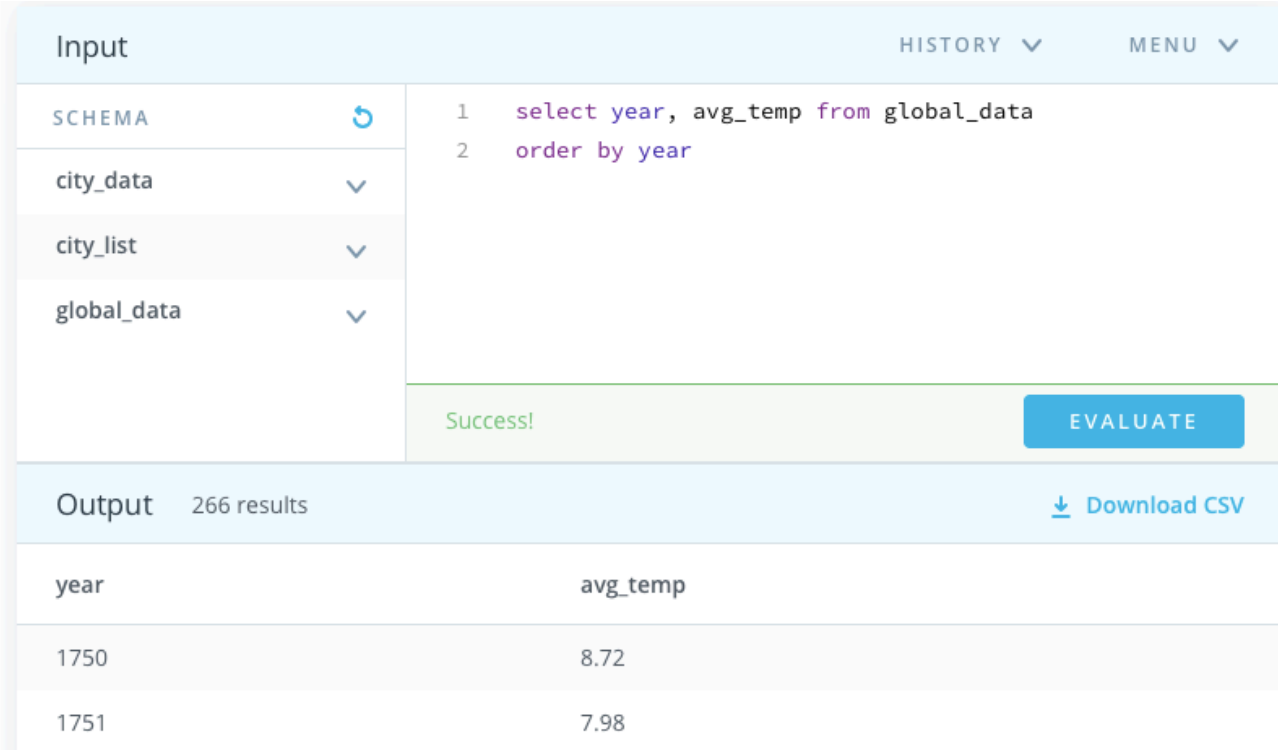
Steps taken to export the data to csv file

1. I used the workspace to extract the data needed to compare the city and global temperatures.
2. SQL query to extract 'San Francisco' city data



Then I downloaded the csv file.

3. SQL query to extract 'Global' data



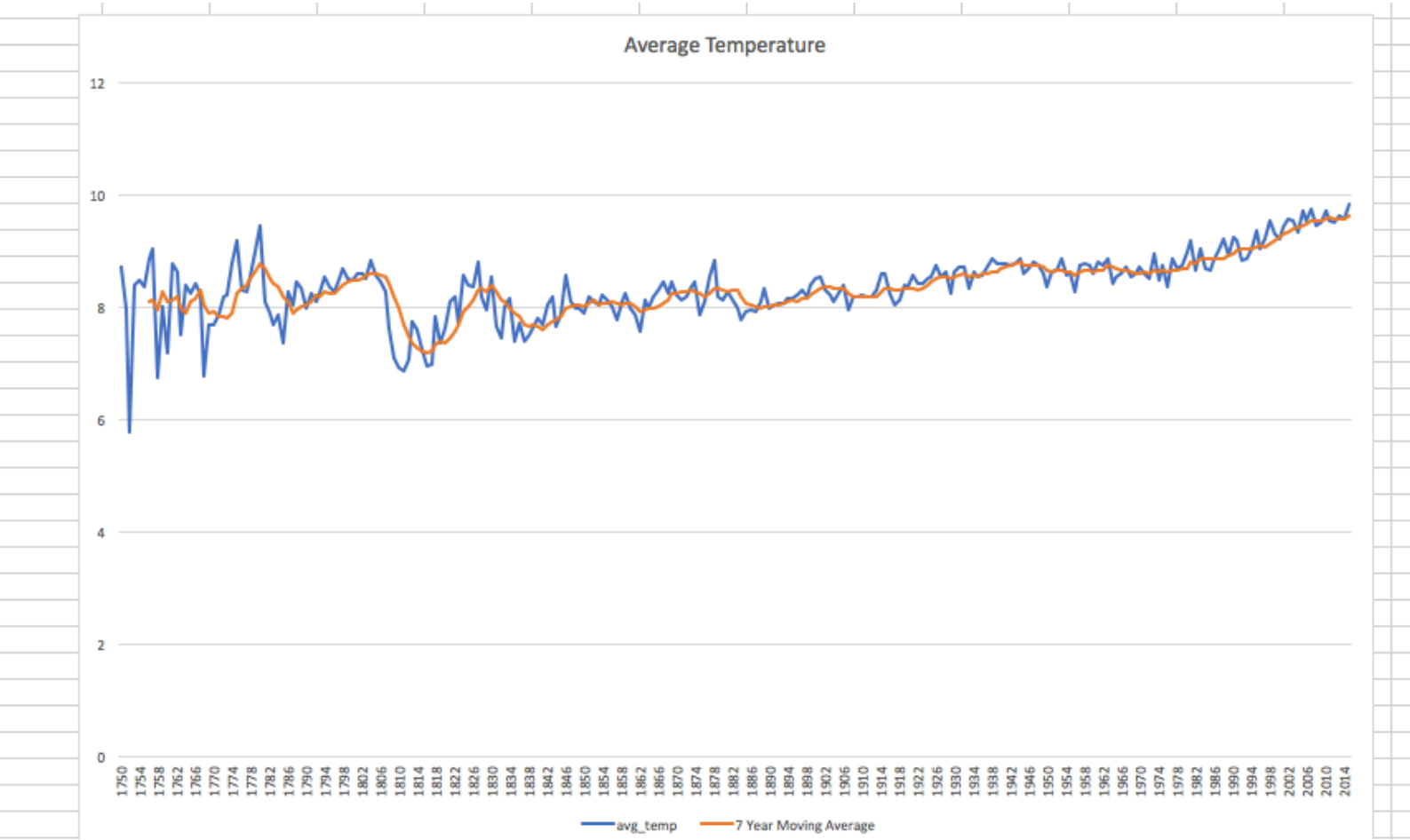
I downloaded the csv file.

I opened these csv files in Excel spreadsheet and Calculated the 7 year moving average for both the city and global average temperature.

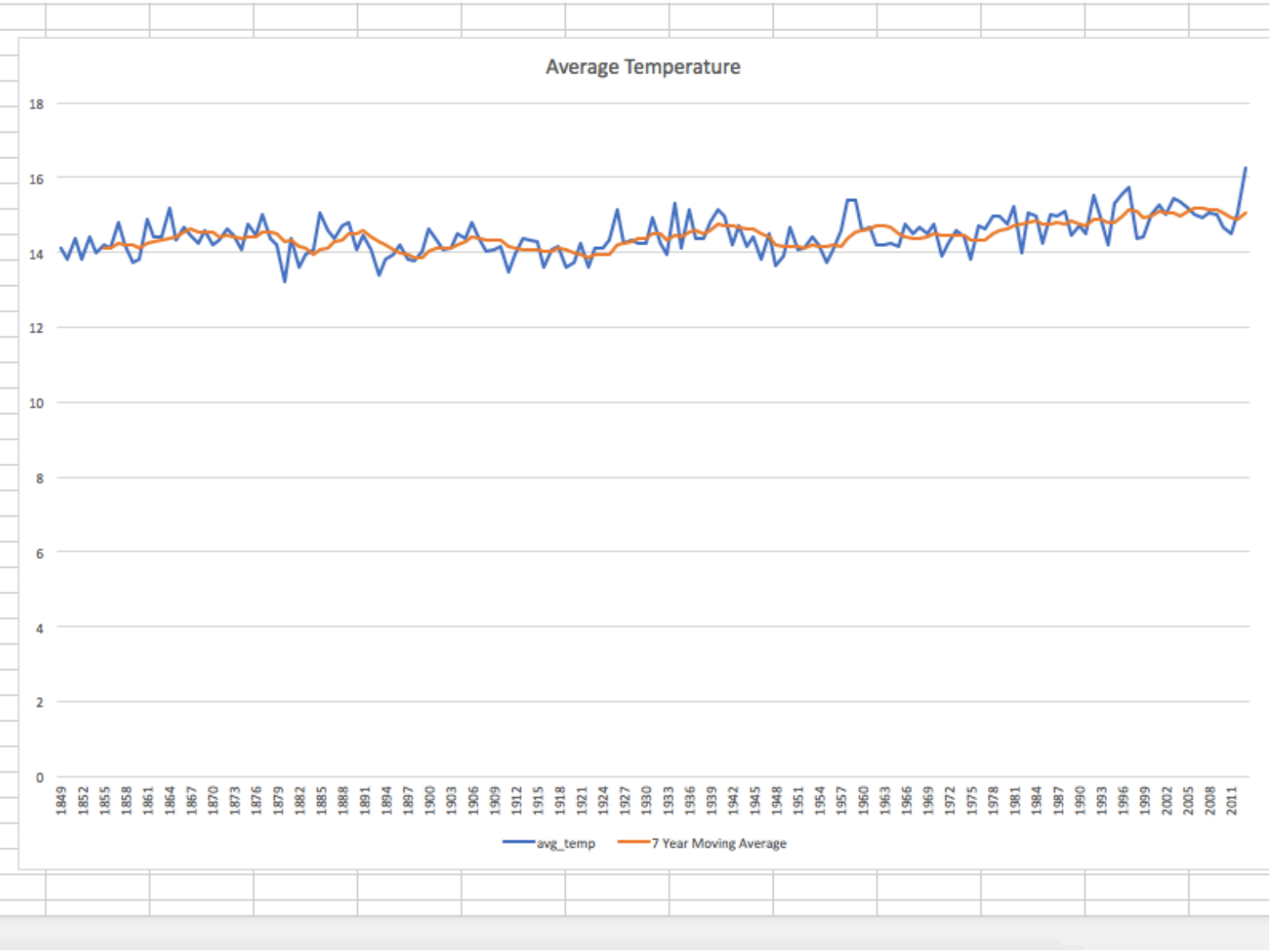
I calculated the moving average by using average function in excel. Average of last 7 years (avg_temp)

	avg_temp	7 Year Moving Average
1849	14.12	
1850	13.8	
1851	14.39	
1852	13.81	
1853	14.4	
1854	13.98	
1855	14.2	14.1
1856	14.1	14.09714286
1857	14.78	14.23714286
1858	14.19	14.20857143
1859	13.71	14.19428571
1860	13.81	14.11
1861	14.88	14.23857143
1862	14.43	14.27142857
1863	14.43	14.31857143
1864	15.18	14.37571429
1865	14.32	14.39428571
1866	14.67	14.53142857
1867	14.46	14.62428571
1868	14.25	14.53428571
1869	14.57	14.55428571
1870	14.19	14.52

Global Average Temperature Line chart



San Francisco Average Temperature Line Chart



I used the line chart to analyse the trends in both city temperature data and global average temperature.

My observations are:

1. San Francisco city average temperature is hotter then Global average temperature.
2. San Francisco city average temperature is more consistent then Global average temperature.
3. Average temperature globally was highest in year 2015 i.e 9.83 and was lowest in year 1752 i.e 5.78.
4. Average temperature in San Francisco was highest in year 2013 i.e 16.23.