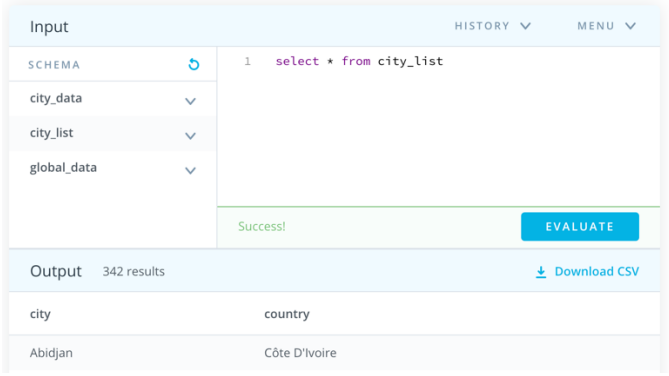
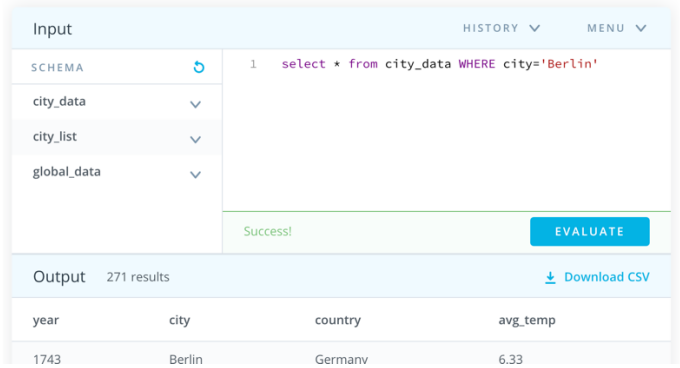
Explore Weather Trends

Steps' Outline:

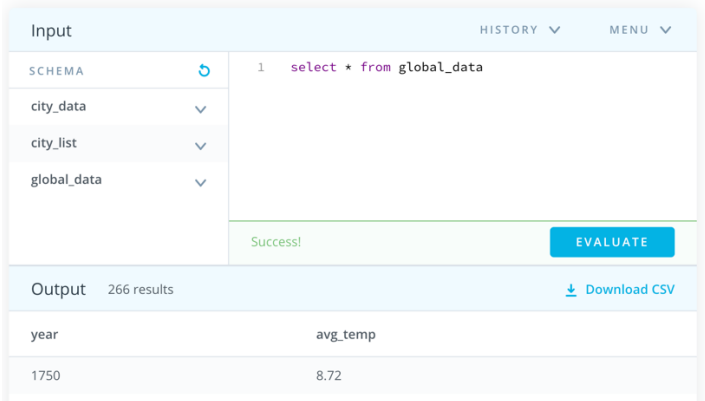
- Run SQL query to identify available cities to define which will be use for the assessment (either home city or closest one, in this case, Berlin)



- Run SQL query to obtain the average temperature data of Berlin



- Download .csv
- Run SQL query (SELECT) to obtain the world average temperature

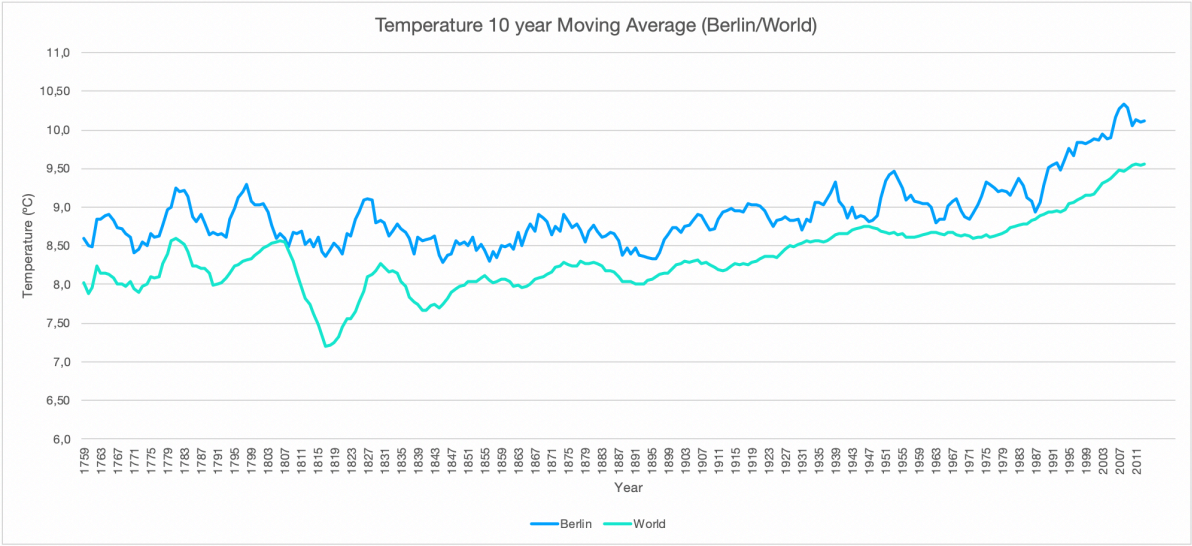


- Download .csv
- Convert both .csv in .xlsx

Moving average calculation: The moving average calculation was done using with the Moving Average Analysis tool of Excel. We considered a 10 year moving average considering the large time frame of the data set.

Key consideration for visualization: Both data set were not entirely covering the same period and the calculation for the moving average did not allow to take in account the nine of each set. For consistency, the analysis was therefore restrained to available years for both sets (as a result of the issues mentioned previously), so from 1759 to 2013.

Temperature Moving Average Line Chart



Observations: Berlin temperatures were in average higher than the world's ones from 1759 to 2013. But the city's temperature experience more important fluctuation over time compare to the world average. One of the most important one being during the second world one which was the longest period in which Berlin's temperature was low compare to the World average one. Both averages have been on a mostly consistent upward trend over time but the recent trends show an important increase in temperature from the end of the 20th century. A significant decline in the world temperature average can be observed in the beginning of the 19th century which was recovered around 1830.