Udacity Weather Trends Project
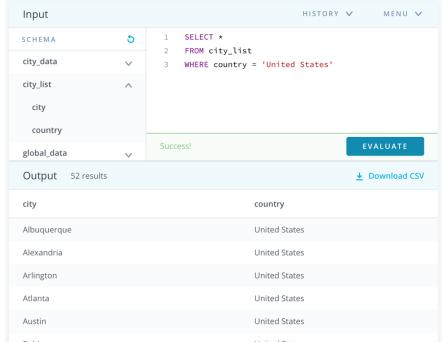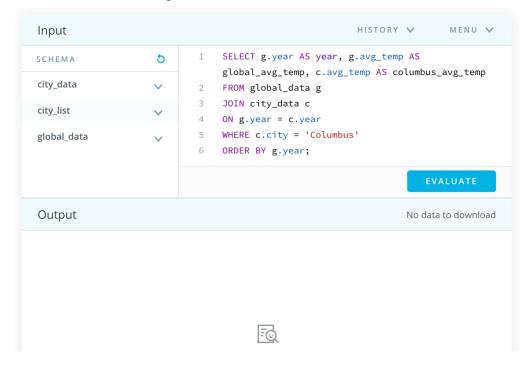
1. Extract the Data
   a. First, I needed to find the city closed to where I live, so I narrowed down my search by country to see which cities were list.

   After looking through the list of cities listed in the United States, I live closest to Columbus, Ohio.
   b. Next, I needed to extract the relevant data for Columbus and JOIN it to the global data. I used the following SQL commands and downloaded the CSV file to Excel.
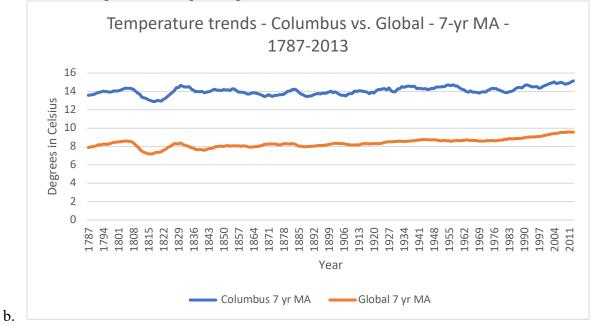
2. Open Up the CSV files
   a. I choose to use Excel to work with my files.
   b. Upon opening the files, I noticed a few blank entries for Columbus, so I will start my comparison in 1781.
   c. The global data averages continue through 2015, but the Columbus data stops at 2013, so I will finish my comparisons in the year 2013.
   d. I created a new column for moving averages. This was done because of the fluctuation of the data from year to year. This moving average was done on the same excel sheet over a 7 year period.

3. Line Chart
    a. The line chart below compares the moving average temperature of Columbus, Ohio to the global moving average.

Temperature trends - Columbus vs. Global - 7-yr MA - 1787-2013

    b.

4. Observations
    a. Columbus has a much higher average temperature consistently over the given time period, normally 4-6 degrees higher. This is more than likely because of the location of Columbus. I would expect this to remain.
    b. Both Columbus and the global average have a massive decline in temperature from 1804-1817.
    c. Both averages have increased over this time period. Columbus has increased by 1.57 degrees and the global moving average has increased by about 1.68 degrees. Columbus has increased slightly less, but both have increased.
    d. The increase in temperature has escalated more quickly over the past few decades, after there had been a steady increase for many years.