Udacity- Weather Trend Project

SQL Queries

#1 to find nearest city

SELECT city_list.city
FROM city_list
Where city = 'New York'

#2 For city and global temperature

SELECT year, avg_temp as NewYork_avg_temp
FROM city_data
Where city = 'New York'

For Global
SELECT year, avg_temp as global_data.avg_temp
FROM global_data

How I calculated moving averages
First, I had to decide how many years will allow me to better smooth out my data for the purpose of making it easier to observe long-term trends. Based on the lesson on moving trend I learned that a short span of time, such as a daily observation, will produce more jagged lines and make it hard to obtain useful data. I chose 10 years to make my data visualization easy to understand then clicked on the next column. The row I picked was after the first 10 year period. In this case it was row 12, column C (C12). I used the equal sign and the AVG function, which allowed me to highlight the 10 year period on column B (=AVERAGE(B2:B12)). After completing this for the first cell I copied and pasted the function for the entire row. To make it quicker, I clicked on the bottom right corner of the cell and dragged down to the end of the row.

Four observations

1. An obvious first observation is New York's hotter temperature compared to the global temperature.

2. New York's temperature also appears to have may sporadic years where the temperature would change. While the global temperature tends to stay the same.

3. It appears that from 1785 – 1788, the global temperate was greater than New York.

4. Correlation coefficient shows a large association, with a rough score of .701. This explains why there is an upward trend for both New York and global temperature.

New York and Global Weather Trend