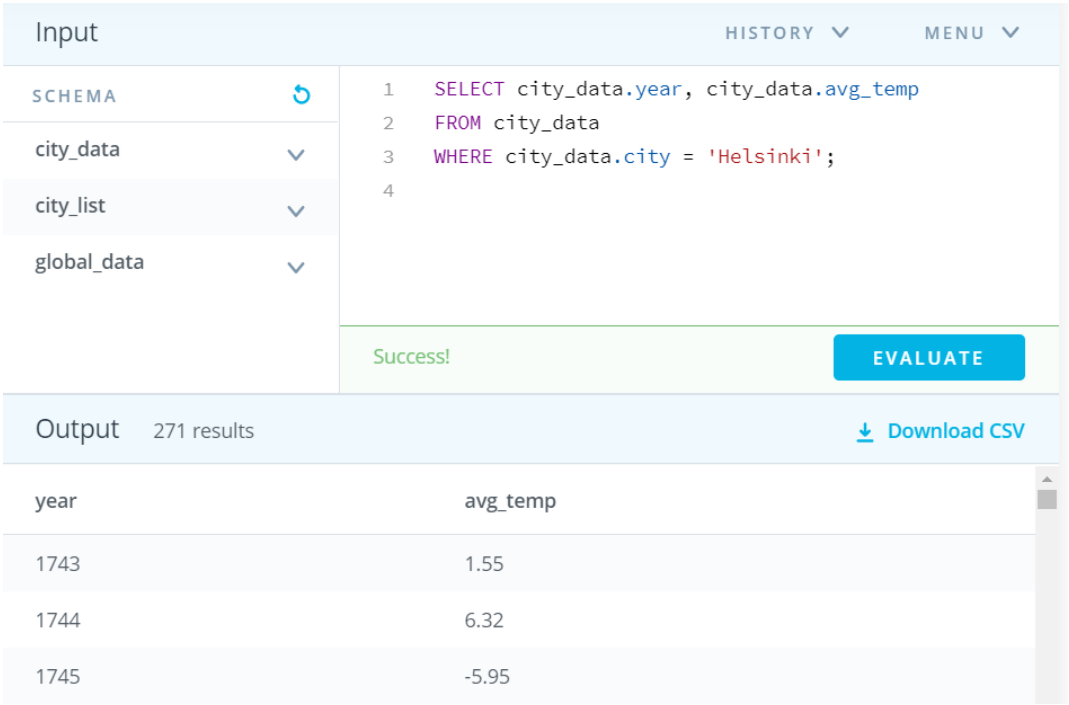
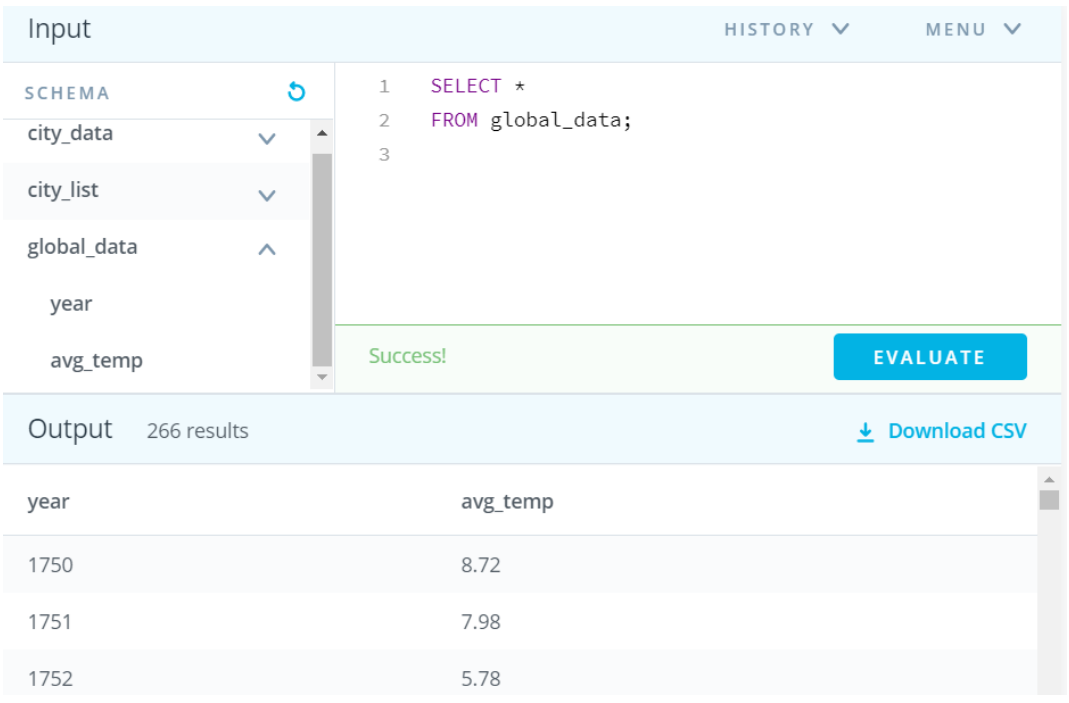
Created by Kari Peltola

1. Extract the data

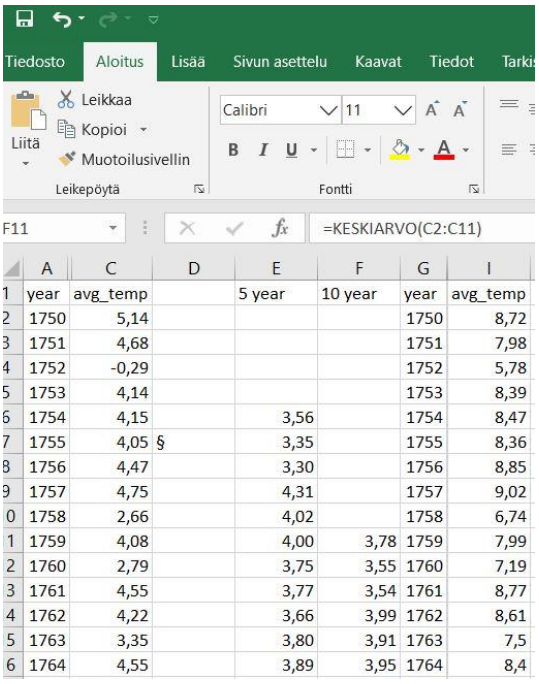
The following SQL commands were used to get needed data from Udacity's database:





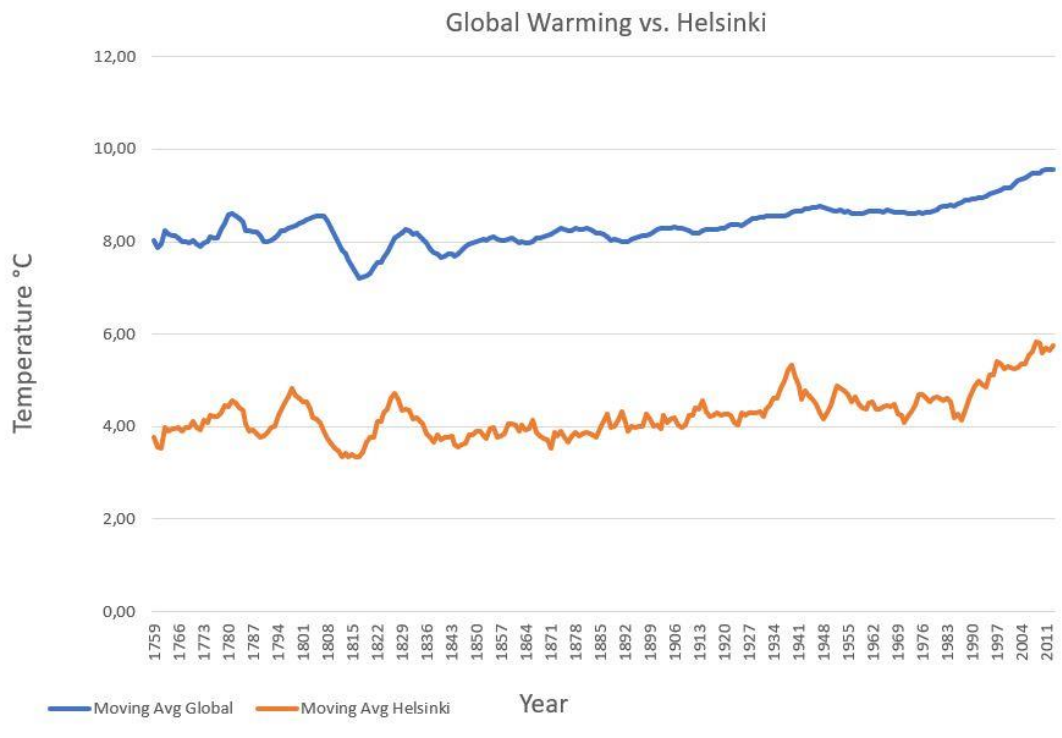
2. Create a line chart

MS-Excel was used to import CSV-files from the SQL query to generate a line chart for the moving average temperature in Helsinki and globally. I created a 10-year moving average by using the AVERAGE function to C2 to C11 cells (KESKIARVO(C2:C11)), and the dragged the formula down (result is starting from cell F11). Please note that I used a Finnish language version and KESKIARVO = AVERAGE



	A	C	D	E	F	G	I
1	year	avg_temp		5 year	10 year	year	avg_temp
2	1750	5,14				1750	8,72
3	1751	4,68				1751	7,98
4	1752	-0,29				1752	5,78
5	1753	4,14				1753	8,39
6	1754	4,15		3,56		1754	8,47
7	1755	4,05	§	3,35		1755	8,36
8	1756	4,47		3,30		1756	8,85
9	1757	4,75		4,31		1757	9,02
0	1758	2,66		4,02		1758	6,74
1	1759	4,08		4,00	3,78	1759	7,99
2	1760	2,79		3,75	3,55	1760	7,19
3	1761	4,55		3,77	3,54	1761	8,77
4	1762	4,22		3,66	3,99	1762	8,61
5	1763	3,35		3,80	3,91	1763	7,5
6	1764	4,55		3,89	3,95	1764	8,4

I did the same for both global and local temperature and then I created a line chart.



3. Observations

- Temperature in Helsinki is lower than global temperature during the whole period. This is very obvious because Helsinki is quite close to Artic Circle.
- Both temperatures show an upwards trend.
- Global warming seems to be increasing since the 80's
- There is approximately 2 °C rise in global and local temperature in both Helsinki and globally.
- Yearly changes are much higher in Helsinki than globally. For example, in some years winter could be very smooth but in other years there could be a real winter e.g. a lot of show and up to – 30 °C temperature. This line chart confirms my personal experiences.