

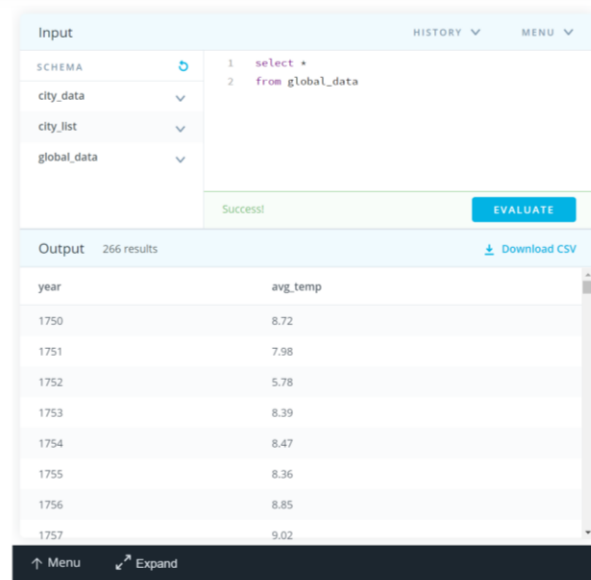


Exploring Weather Trends

PORT AU PRINCE CITY

What tools did you use for each step?

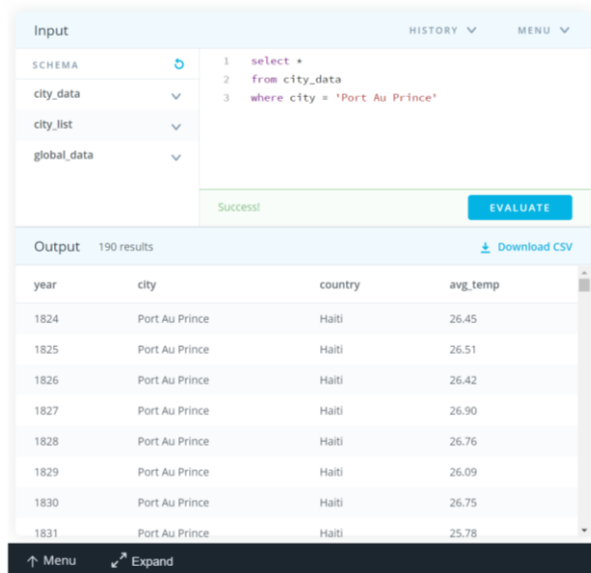
- I used SQL to extract the data.
- Excel to calculate a moving average and create a line chart.



The screenshot shows a SQL query interface. The 'Input' section on the left lists a schema and three tables: city_data, city_list, and global_data. The SQL query in the main area is: `1 select *` and `2 from global_data`. Below the query is a green 'Success!' message and an 'EVALUATE' button. The 'Output' section shows 266 results with a 'Download CSV' link. The output table has two columns: 'year' and 'avg_temp'. The visible rows are for years 1750 through 1757.

year	avg_temp
1750	8.72
1751	7.98
1752	5.78
1753	8.39
1754	8.47
1755	8.36
1756	8.85
1757	9.02

Figure 1: Extract global data



The screenshot shows a SQL query interface. The 'Input' section on the left lists a schema and three tables: city_data, city_list, and global_data. The SQL query in the main area is: `1 select *`, `2 from city_data`, and `3 where city = 'Port Au Prince'`. Below the query is a green 'Success!' message and an 'EVALUATE' button. The 'Output' section shows 190 results with a 'Download CSV' link. The output table has four columns: 'year', 'city', 'country', and 'avg_temp'. The visible rows are for years 1824 through 1831, all for 'Port Au Prince' in 'Haiti'.

year	city	country	avg_temp
1824	Port Au Prince	Haiti	26.45
1825	Port Au Prince	Haiti	26.51
1826	Port Au Prince	Haiti	26.42
1827	Port Au Prince	Haiti	26.90
1828	Port Au Prince	Haiti	26.76
1829	Port Au Prince	Haiti	26.09
1830	Port Au Prince	Haiti	26.75
1831	Port Au Prince	Haiti	25.78

Figure 2: Extract city data

How did you calculate the moving average?

I calculated it for each 14 years.

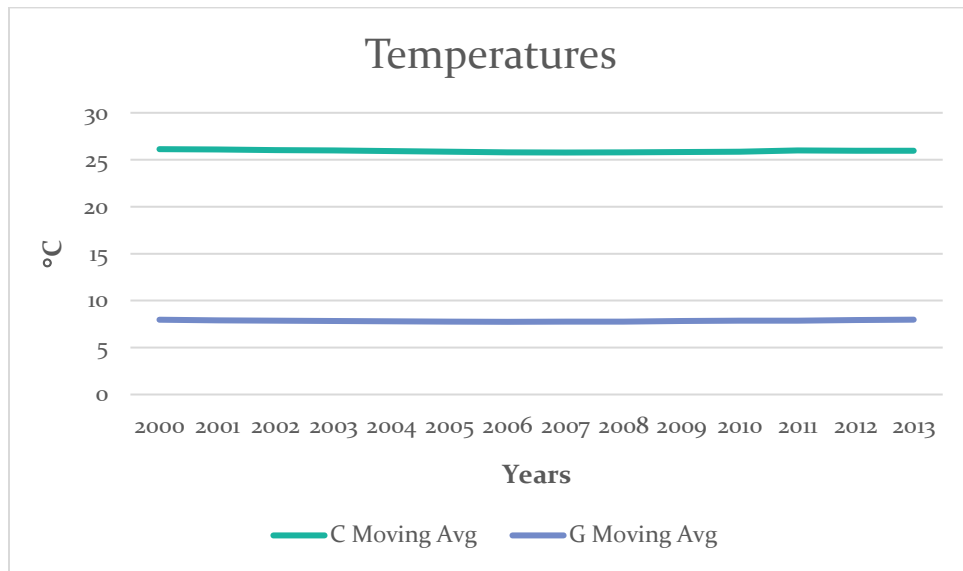
The screenshot shows an Excel spreadsheet with the following data:

year	city	C avg_temp	C Moving Avg	G avg_temp	G Moving Avg
2013	Port Au Prince	27.2	27.25785714	8.55	=AVERAGE(E2:E15)
2012	Port Au Prince	27.2	27.24428571	8.39	AVERAGE(number1, [number2], ...)
2011	Port Au Prince	27.1	27.27071429	8.36	7.856428571
2010	Port Au Prince	27.19	27.31642857	8.81	7.832142857
2009	Port Au Prince	27.35	27.29214286	8.17	7.786428571
2008	Port Au Prince	27.08	27.28857143	7.94	7.749285714
2007	Port Au Prince	27.47	27.30285714	8.52	7.742857143
2006	Port Au Prince	27.41	27.25357143	7.64	7.745
2005	Port Au Prince	27.35	27.21071429	7.45	7.777142857
2004	Port Au Prince	27.37	27.18642857	7.39	7.815
2003	Port Au Prince	27.5	27.16785714	7.7	7.857142857
2002	Port Au Prince	27.42	27.12071429	7.38	7.871428571
2001	Port Au Prince	27.21	27.09571429	7.51	7.928571429
2000	Port Au Prince	26.76	27.08785714	7.63	7.970714286
1999	Port Au Prince	27.01	27.09214286	7.8	8
1998	Port Au Prince	27.57	27.06928571	7.69	8.029285714
1997	Port Au Prince	27.74	27.00571429	8.02	8.059285714
1996	Port Au Prince	26.85	26.97142857	8.17	8.057857143
1995	Port Au Prince	27.3	26.97428571	7.65	8.028571429
1994	Port Au Prince	27.28	26.94928571	7.85	8.060714286
1993	Port Au Prince	26.78	26.94357143	8.55	8.089285714

What were your key considerations when deciding how to visualize the trends?

Moving average values of global temperature and Port Au Prince city.

Line chart with local and global temperature trends At least four observations about the similarities and/or differences in the trends:



– **What do the temperatures look like in a Port Au Prince city?**

Based on temperature data from 1824 to 2013, we note that from the year 2000 the temperature began to rise and the rise continued for 14 years until 2013.

– **Temperature of Port Au Prince city compared to global temperatures?**

Port Au Prince city temperatures are considered low compared to global temperatures in the 14 years from 2000 to 2013.

– **What do world temperatures look like?**

It is noticeable that temperatures are constantly rising, and it can be said that the world becomes hotter with the progression of years, and this increases the humidity levels, the rate of water evaporation and affects the rate of air-conditioning devices consumption of electricity.

– **Similarities and differences between global temperatures and a Port Au Prince city?**

The increase and decrease in temperature over the past 14 years approximately a small change in temperature about degree or less.