

An outline of the steps to prepare the data

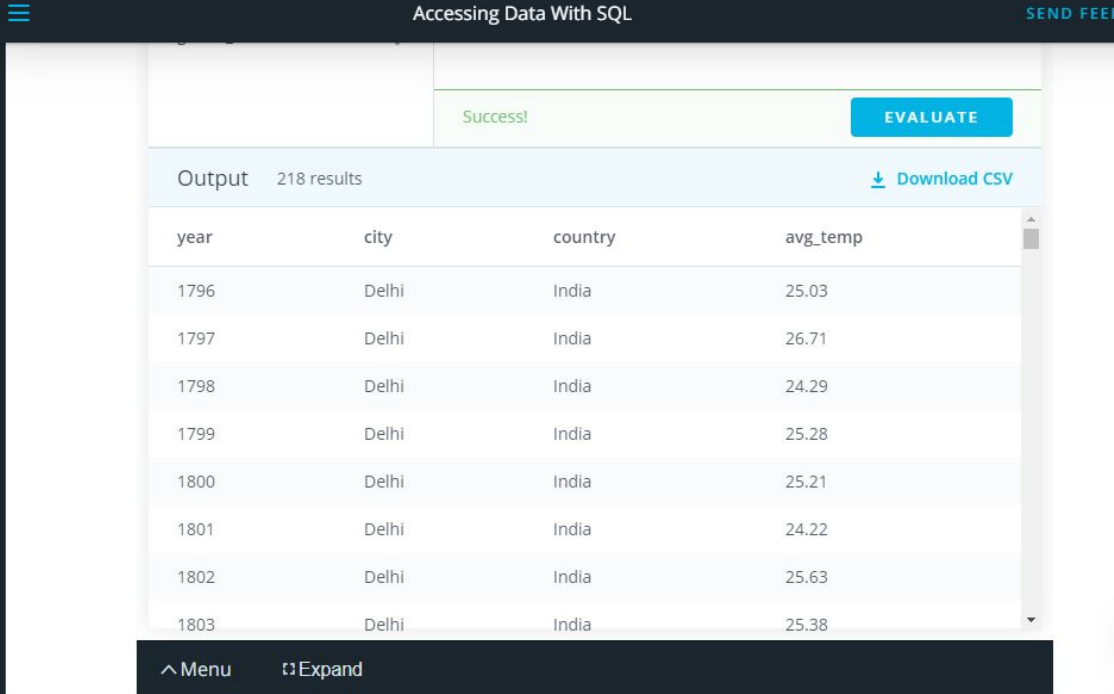
Used the following commands to first check for the cities whose data is available and then to get the data of the required city. (SQL queries)

```
select city from city_data where country ='India';
```

```
select * from city_data where city='Bhopal';
```

```
select * from city_data where city='Delhi';
```

```
select * from global_data;
```



Accessing Data With SQL

Success!

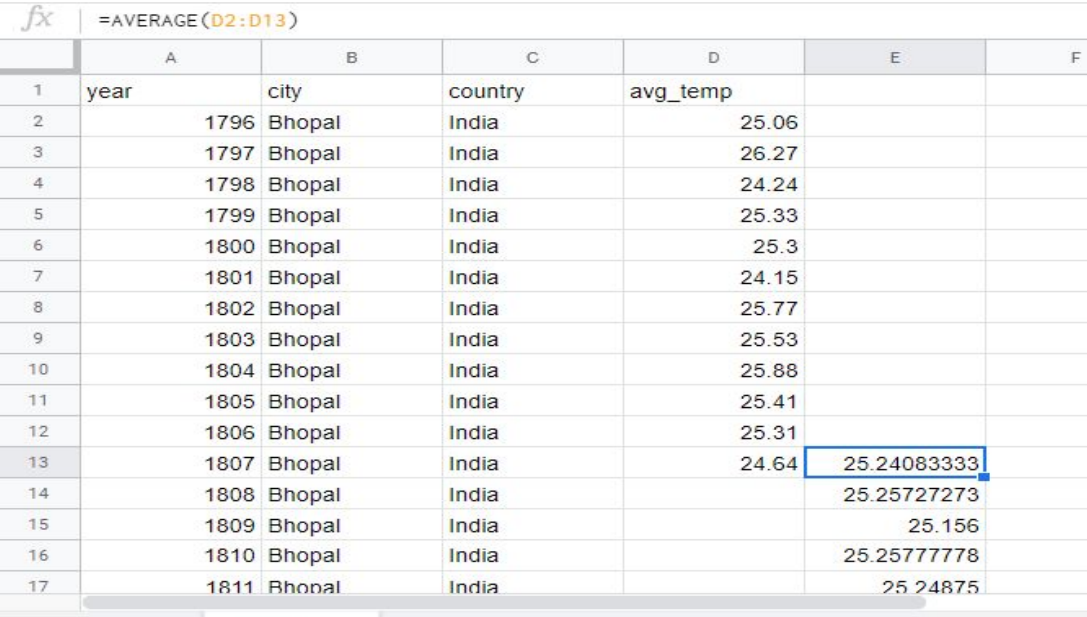
EVALUATE

Output 218 results [Download CSV](#)

year	city	country	avg_temp
1796	Delhi	India	25.03
1797	Delhi	India	26.71
1798	Delhi	India	24.29
1799	Delhi	India	25.28
1800	Delhi	India	25.21
1801	Delhi	India	24.22
1802	Delhi	India	25.63
1803	Delhi	India	25.38

Menu Expand

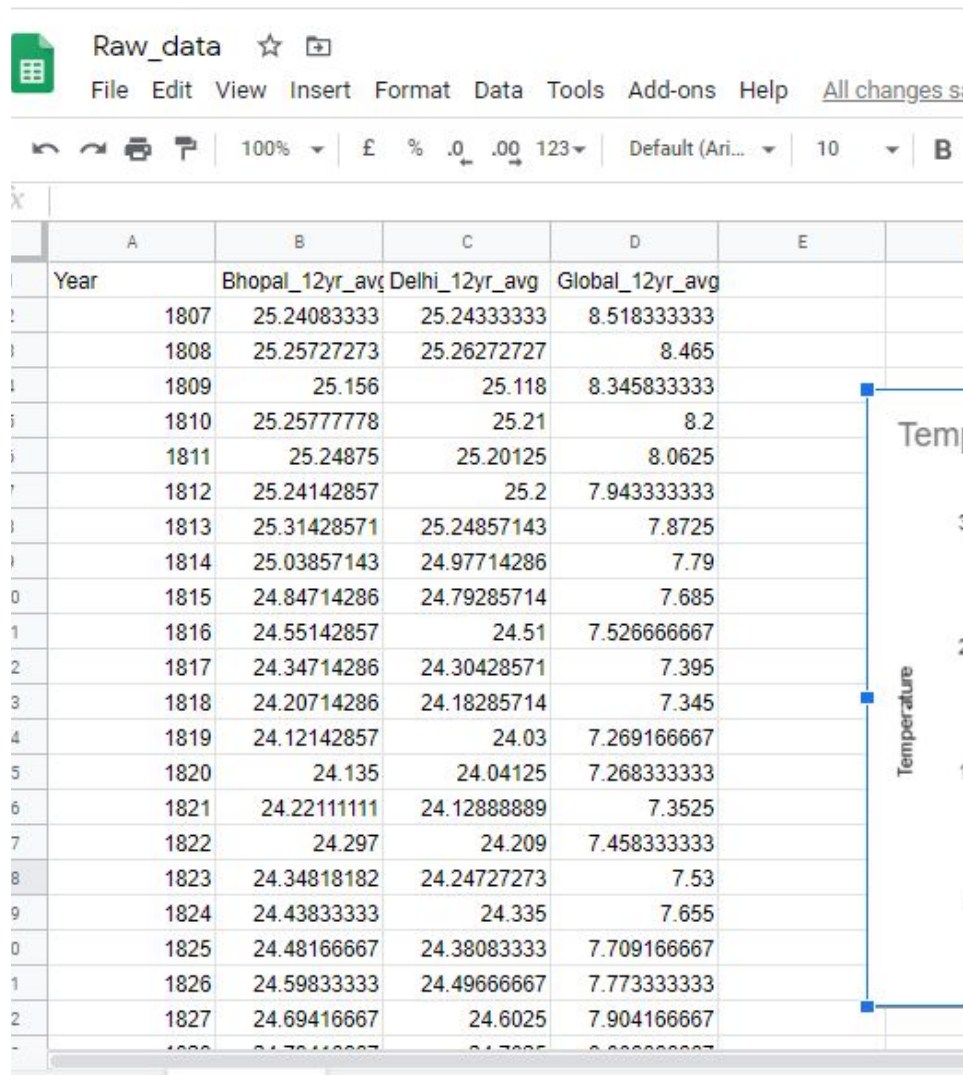
Used the average function to calculate the moving average->
=AVERAGE(D2:D13)



fx =AVERAGE(D2:D13)

	A	B	C	D	E	F
1	year	city	country	avg_temp		
2	1796	Bhopal	India	25.06		
3	1797	Bhopal	India	26.27		
4	1798	Bhopal	India	24.24		
5	1799	Bhopal	India	25.33		
6	1800	Bhopal	India	25.3		
7	1801	Bhopal	India	24.15		
8	1802	Bhopal	India	25.77		
9	1803	Bhopal	India	25.53		
10	1804	Bhopal	India	25.88		
11	1805	Bhopal	India	25.41		
12	1806	Bhopal	India	25.31		
13	1807	Bhopal	India	24.64	25.24083333	
14	1808	Bhopal	India		25.25727273	
15	1809	Bhopal	India		25.156	
16	1810	Bhopal	India		25.25777778	
17	1811	Bhopal	India		25.24875	

Used a Raw data sheet for making the graph with the data from three different sheets.



Calculation of the moving average

Moving average is calculated for 10 years.

Key considerations when deciding how to visualize the trends

As 12 year moving average is taken for the 3 categories, hence a line chart is populated w.r.t Year and Avg temperature

Observations about the similarities and/or differences in the trends

- a) Global temperatures are very less compared to Bhopal and Delhi
- b) The temperatures for all the 3 categories have increased marginally in the last 200 years of data
- c) Temperature of Delhi and Bhopal have been almost the same.
- d) It can be observed that temperatures have changed by an increase or decrease of 0.3
- e) Exactly 50 years from the year 1807, we observe that Global, Bhopal and Delhi have their temperatures dipped.
- f) The difference in 12 year MA temperatures when comparison done w.r.t 1807 vs 2013: global - 0.89 and Delhi - 1.04
- g) The correlation coefficient for Global vs Delhi is 0.937