Project: Exploring Weather Trends

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1. What tools did you use for each step? (Python, SQL, Excel, etc)

a. For fetching the data in the form of ‘csv’, I used SQL.

1) The code for fetching the global temp data :

```
SELECT *
FROM global_data;
```

2) The city which i chose is Pune in country India.
The code is:

```
SELECT *
FROM city_data
WHERE city='Pune' AND country='India'
```

b. I downloaded the data and exported it to MS Excel for the further operations.

2. How did you calculate the moving average?

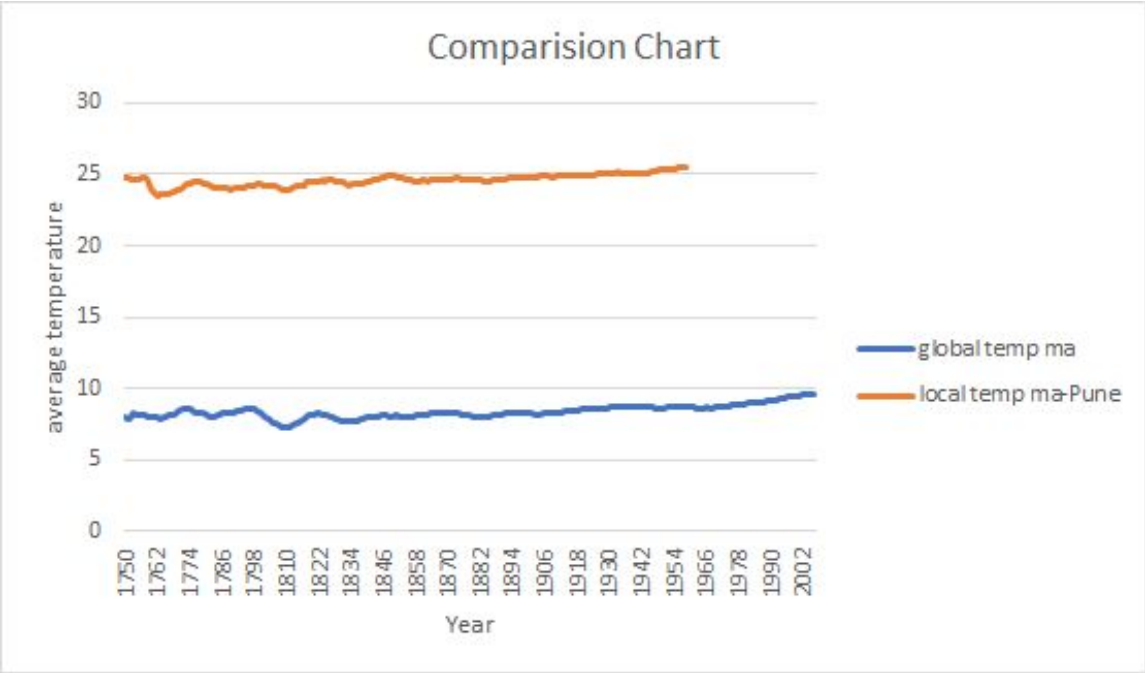
	A	B	C	D	E	F
1	year	city	country	avg_temp		
2	1796	Pune	India	24.39		
3	1797	Pune	India	25.17		
4	1798	Pune	India	24.05		
5	1799	Pune	India	24.68		
6	1800	Pune	India	24.67		
7	1801	Pune	India	23.94		
8	1802	Pune	India	25.18	=AVERAGE(D2:D8)	

For calculating moving average,

I used the Average() function to calculate the average of each global as well as local temperature.

	A	B	C
1	year	avg_temp	global avg ter
2	1750	8.72	
3	1751	7.98	
4	1752	5.78	
5	1753	8.39	
6	1754	8.47	
7	1755	8.36	
8	1756	8.85	
9	1757	9.02	
10	1758	6.74	
11	1759	7.99	8.03
12	1760	7.19	7.877
13	1761	8.77	7.956
14	1762	8.61	8.239
15	1763	7.5	8.15
16	1764	8.4	8.143
17	1765	8.25	8.132
18	1766	8.41	8.088
19	1767	8.22	8.008

Step 3



I combined the moving averages of global and local temperature into a single excel sheet and made a comparison line graph.

Orange line depicts MA for Pune while Blue line depicts global MA of temperature.

Observations:

1) The average temperature of Pune is constantly high as compared to global average temperature.
2) My city is hotter as compared to the global average.
3) As years are passing, the world is getting hotter and hotter and so is the city Pune.
4) In past few years, there is a parallel increase in temperatures locally as well as globally.