Project: Exploring Weather Trends

By- Tanmay Gangurde

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) I have selected Pune, India’s data. The code is:

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

b. I then downloaded the data and moved it to Microsoft Excel for further

operation.

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)	

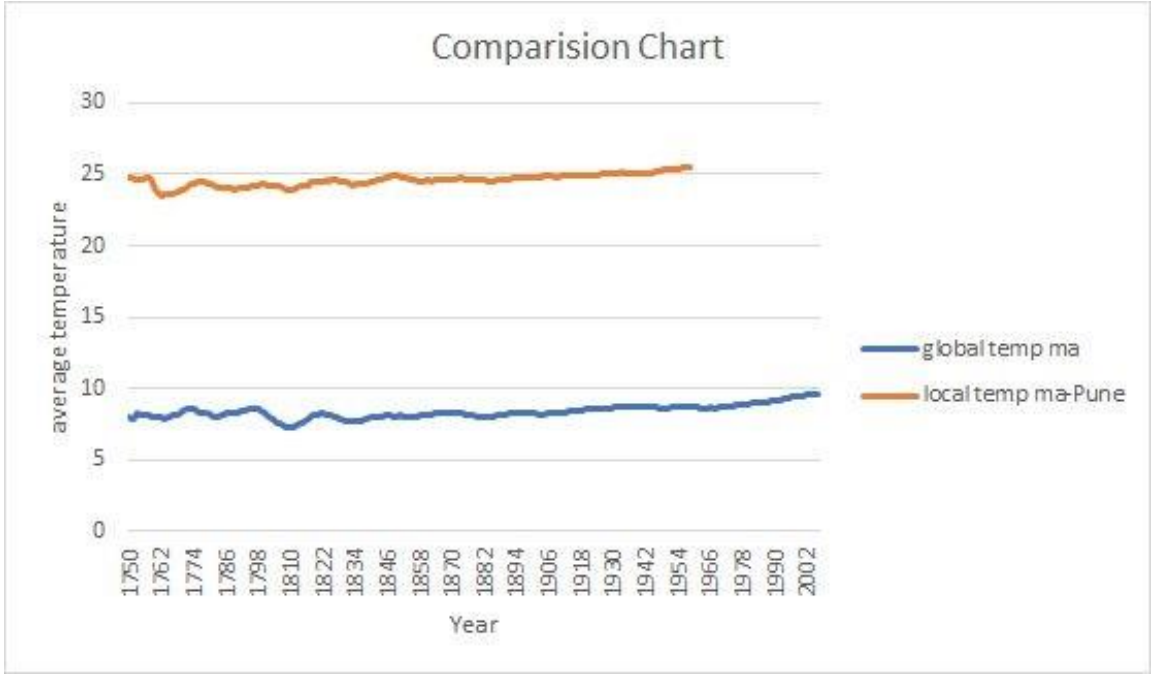
For calculating moving average, I used average()

Function, which calculated the avg of local as well

	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

As global temperatures.

Step 3



After combining the moving averages of global and local temperature into a single excel sheet, I made a comparison line graph between them.

Orange line depicts MA for Pune while Blue line

depicts global MA of temperature.

Observations:

1) The average temperature of Pune is quite high as compared to global average temperature.
2) Pune is hotter as compared to global average
3) There is change in climate as new year comes. This is observed by gradual increase in temperature of Pune as well as other places as time passes.
4) According to data there is parallel increase in temperatures locally as well as globally.