

A) An outline of steps taken to prepare the data

SQL is used to pull the data

```
SELECT a.year, a.city, a.country, a.avg_temp, b.avg_temp as "avg_temp_global"
```

```
FROM city_data a INNER JOIN global_data b on a.year = b.year WHERE a.city = 'Your city'
```

```
AND a.avg_temp IS NOT NULL
```

B) Calculating the moving averages

year	city	country	avg_temp	avg_temp_global	Delhi_Temperature
1796	Delhi	India	25.03	8.2	=average(D2:D13)
1797	Delhi	India	26.71	8.51	
1798	Delhi	India	24.29	8.67	
1799	Delhi	India	25.28	8.51	
1800	Delhi	India	25.21	8.48	
1801	Delhi	India	24.22	8.59	
1802	Delhi	India	25.63	8.58	
1803	Delhi	India	25.38	8.5	
1804	Delhi	India	25.68	8.84	
1805	Delhi	India	25.3	8.56	
1806	Delhi	India	25.22	8.43	
1807	Delhi	India	24.97	8.28	

sample Final Raw Data

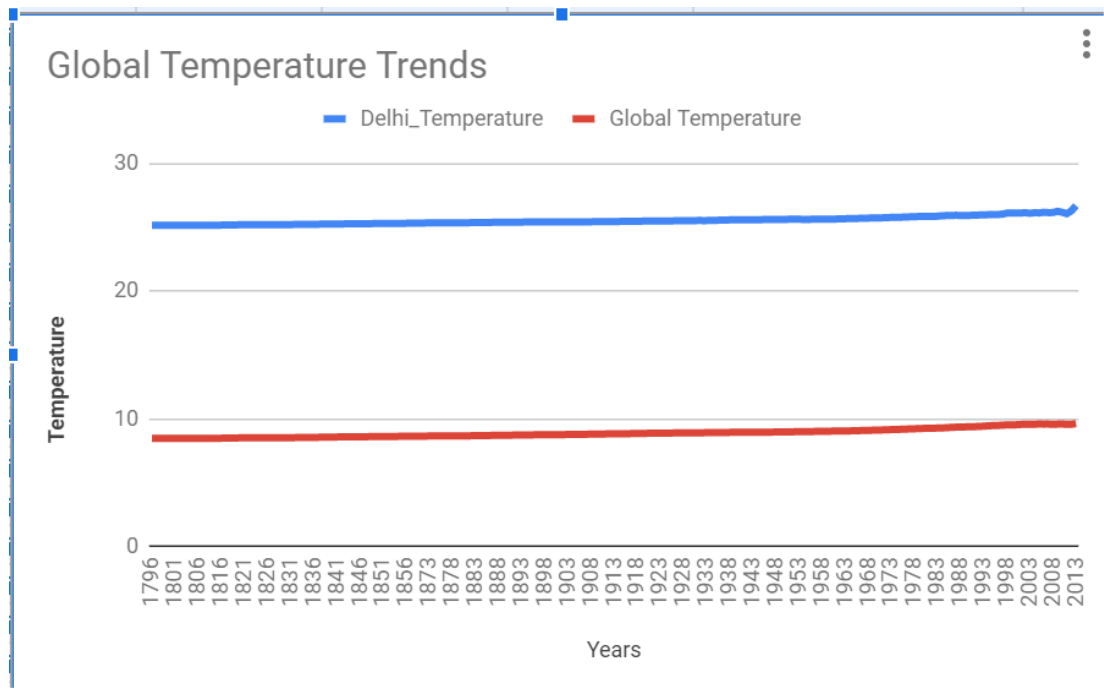
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C) Key considerations when deciding how to visualize the trends

wanted to time the align for all the 2 categories (Delhi , Global Temperature) as we have 12year moving average is taken for all the 3 categories, hence a line / trend chart is plotted

w.r.t Year and Avg temperature

Line chart with Global and local temperature



Four observations about their provided data visualization.

- a) Global temperatures are very less compared to Delhi.
- b) The Lowest temperature found for global (5.78 deg c) around 1752 where as Delhi (23.70 deg c) around 1816 .
- c) The Highest temperature found for global (9.83 deg c) around 2015 where as Delhi (26.71) around 1797.
- d) Delhi temperature increment is more as compare to the global temperature.
- e) The correlation Coefficient for (Global vs Delhi -> 0.9863316849) as we took moving average temperature.
- f) If we take Correlation Coefficient for (Global vs Delhi -> 0.7626544249) as we took avg_temperature and avg_global_temperature.