Contents

Explore Weather Trends

This project is to explore weather trends for city of San Jose and compare it to global average.

SQL Query

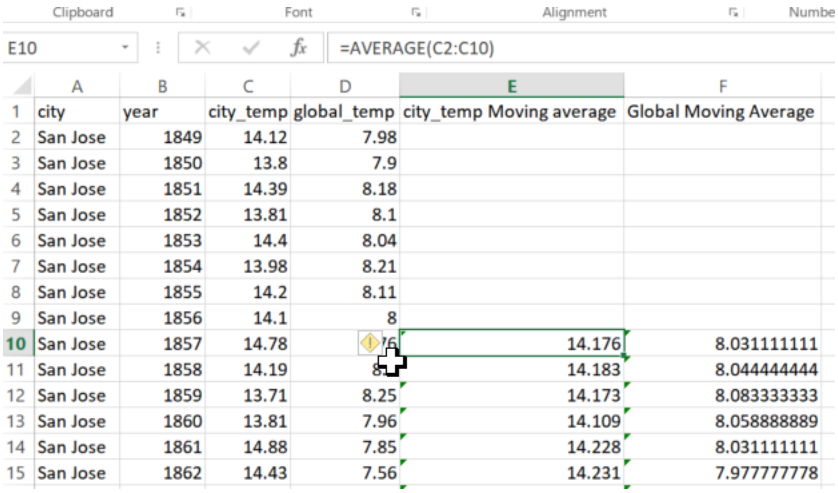
```
select
cd.city,
cd.year,
cd.avg_temp as city_temp,
gd.avg_temp as global_temp

from city_data cd
join global_data gd on cd.year= gd.year
where cd.city = 'San Jose'
```

Formula to calculate moving average

Calculated 10 year moving average for ‘city_temp’ and ‘global_temp’ using similar method.

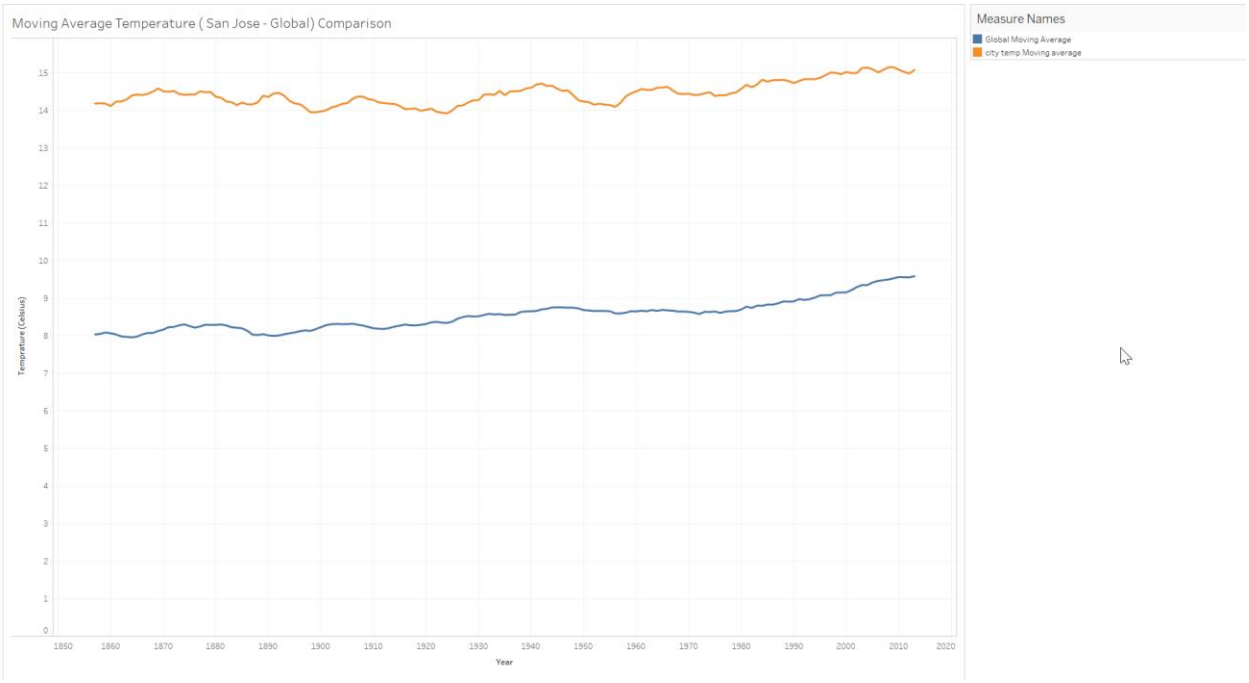
Example: For the year 1858, the formula for city_temp Moving average is AVERAGE(C3:C11)



	A	B	C	D	E	F
1	city	year	city_temp	global_temp	city_temp Moving average	Global Moving Average
2	San Jose	1849	14.12	7.98		
3	San Jose	1850	13.8	7.9		
4	San Jose	1851	14.39	8.18		
5	San Jose	1852	13.81	8.1		
6	San Jose	1853	14.4	8.04		
7	San Jose	1854	13.98	8.21		
8	San Jose	1855	14.2	8.11		
9	San Jose	1856	14.1	8		
10	San Jose	1857	14.78	7[illegible]	14.176	8.031111111
11	San Jose	1858	14.19	8[illegible]	14.183	8.044444444
12	San Jose	1859	13.71	8.25	14.173	8.083333333
13	San Jose	1860	13.81	7.96	14.109	8.058888889
14	San Jose	1861	14.88	7.85	14.228	8.031111111
15	San Jose	1862	14.43	7.56	14.231	7.977777778

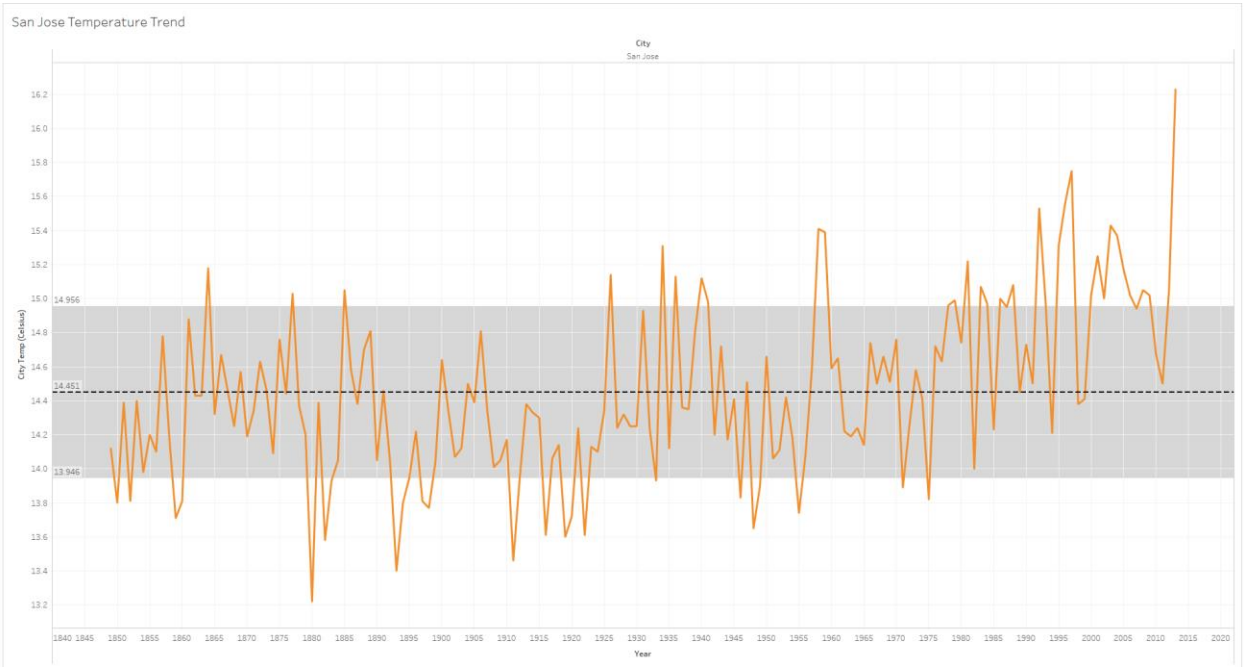
Data Visualization

The data is visualized using Tableau.

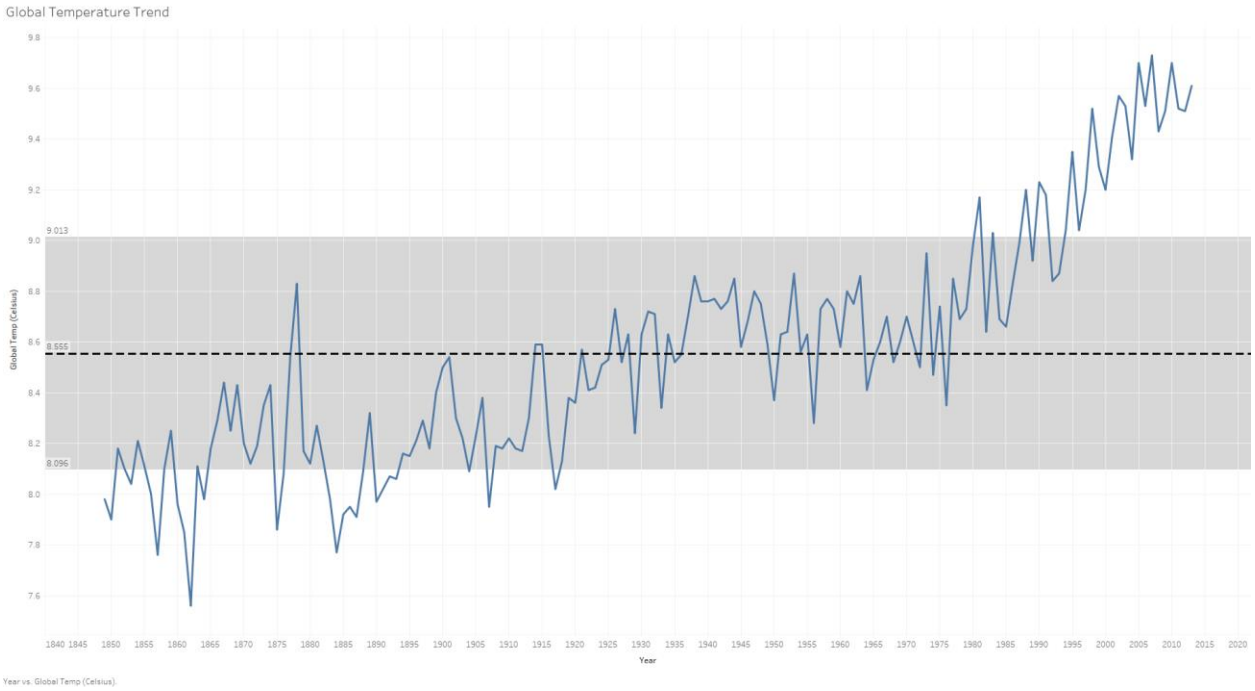


Observations

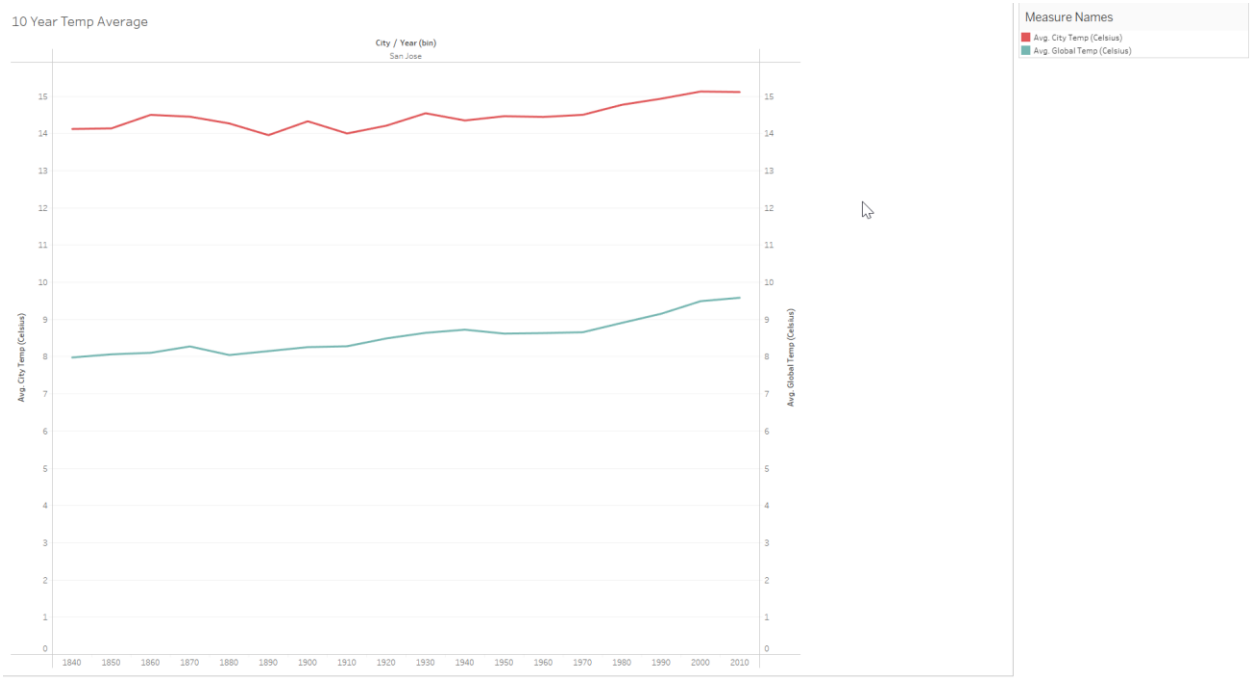
1. San Jose city temperature is increasing in the recent years, but there is not a significant increase. The standard deviation is low.



2. The global temperature is increasing rapidly over the years.



3. The 10 year average shows that the average temperature for both San Jose and global are increasing and there is a steep increase 1990 onwards.



4. The temperature difference between San Jose and global temperature is reducing.