

PROJEC 1- EXPLORE WEATHER TRENDS

Outline of the analysis

Step1: Extracted necessary information from database tables (city_data, global_data, city_list) with using the SQL query below:

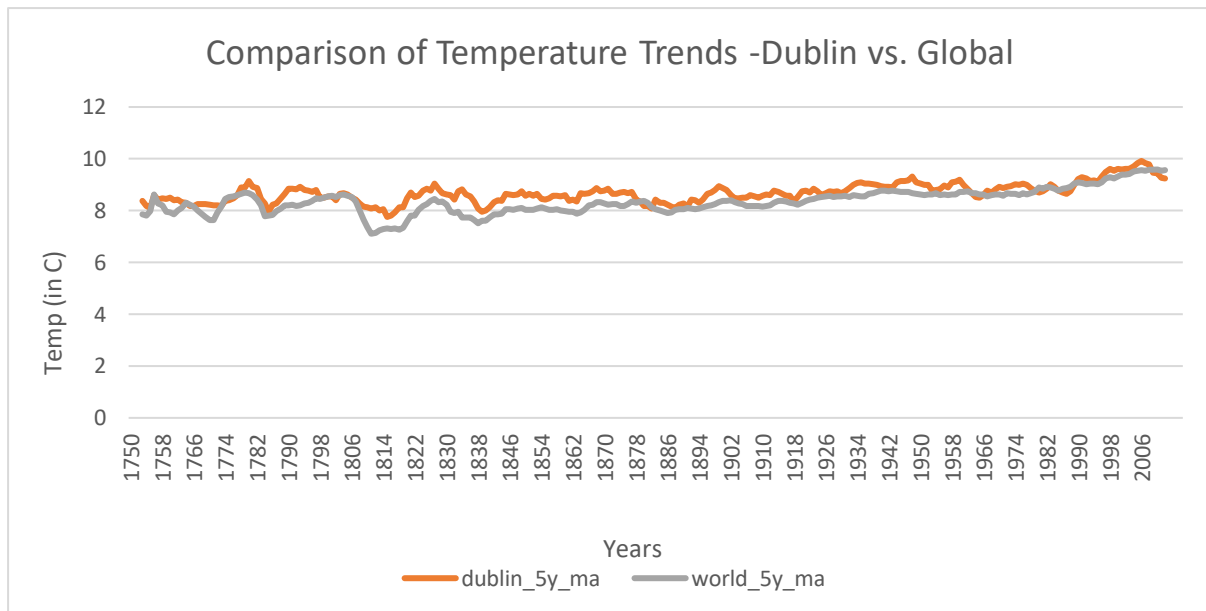
```
SELECT
    gd.year,
    cd.city,
    cd.avg_temp my_city,
    gd.avg_temp world
FROM city_data cd
    JOIN global_data gd ON gd.year = cd.year
WHERE cd.city = 'Dublin'
ORDER BY gd.year
```

Step2 : Exported the query result to CSV file then converted it into Excel.

Step3: Calculated 5 year moving averages with Avg() function in excel for city and global data. Find the moving average formula for 5 years =AVERAGE (C2:C6) and I drag the formula down.

=AVERAGE(C2:C6)				
	C	D	E	F
	my_city_dublin	global	dublin_5y_moving_avg	global_5y_moving_avg
	9.32	8.72		
	9.12	7.98		
	6.28	5.78		
	8.63	8.39		
	8.59	8.47	8.388	7.868
	8.29	8.36	8.182	7.796
	8.75	8.85	8.108	7.97
	8.72	9.02	8.596	8.618
	7.83	6.74	8.436	8.288
	8.82	7.99	8.482	8.192
	8.14	7.19	8.452	7.958
	8.95	8.77	8.492	7.942
	8.32	8.61	8.412	7.86
	7.95	7.5	8.436	8.012
	8.26	8.4	8.324	8.094
	8.08	8.25	8.312	8.306
	8.24	8.41	8.17	8.234
	8.38	8.22	8.182	8.156

Step4: Created line chart with data at hand in Excel.



Observations:

- Temperature in general in the city of Dublin is higher than the global average.
- There is not a big difference between Dublin's temperature to that of the global temperature throughout time frame.
- In 1816, Dublin recorded its lowest temperature of 7.75c.
- Global temperature decreased from 1805 to 1812. Its lowest temp was 7.13c.
- In 2016, Dublin recorded its highest average temp of 9.91c.
- In 2016, Global avg temp was 9.57c. This is the highest avg temp recorded in the world.
- The avg temp of Global and Dublin has been increasing over the years.