

Explore Weather Trends

First, I used following SQL query to extract global temperature data:

```
SELECT *  
FROM global_data;
```

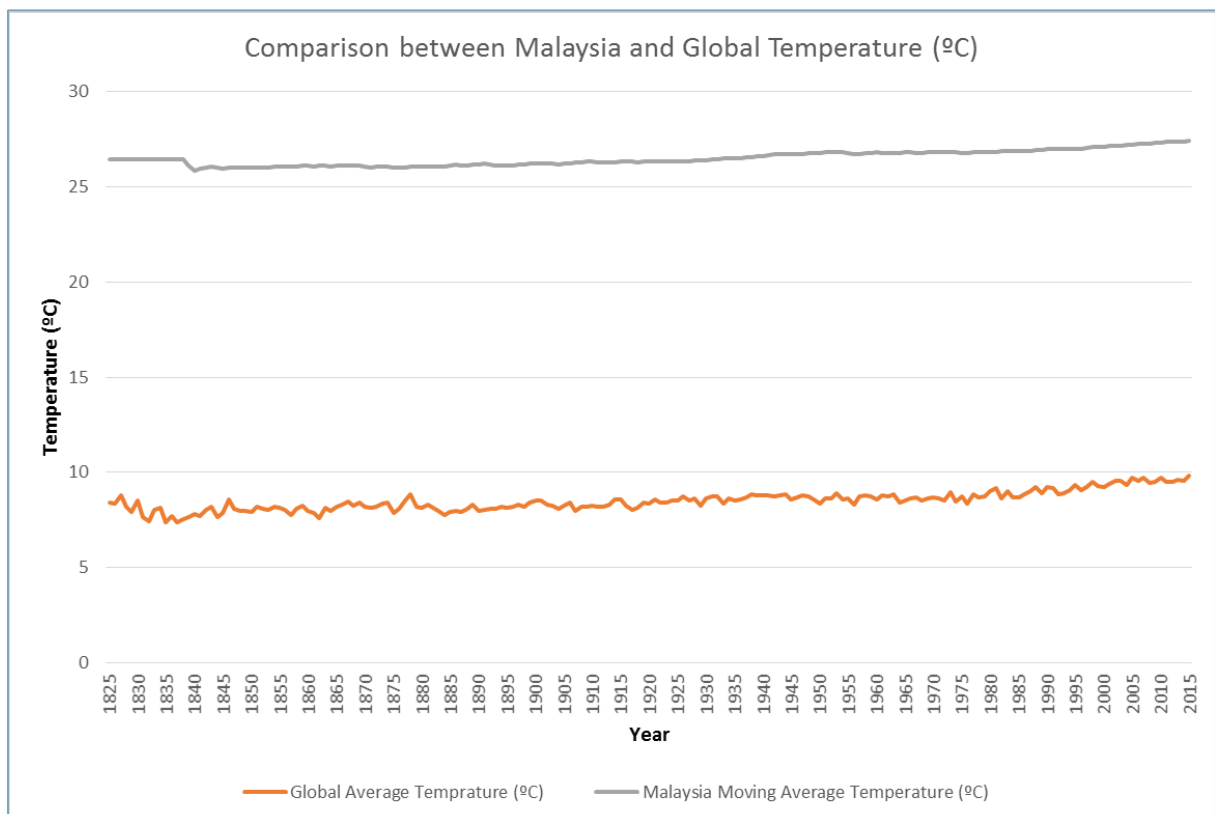
Then I used SQL query below to extract my country Malaysia temperature data:

```
SELECT *  
FROM city_data  
WHERE country = 'Malaysia'  
AND city = 'Kuala Lumpur';
```

Next, I export to csv and combined both data in csv format. I realized my country Malaysia only got data start from year 1825 so I decided to make comparison with global data start from year 1825 to 2015.

At the same time for my country Malaysia dataset consists missing data for certain year example 1826-1838, 1848, 1849 etc. I used excel average formula to calculate the moving average for 15 years in order to smooth out the line.

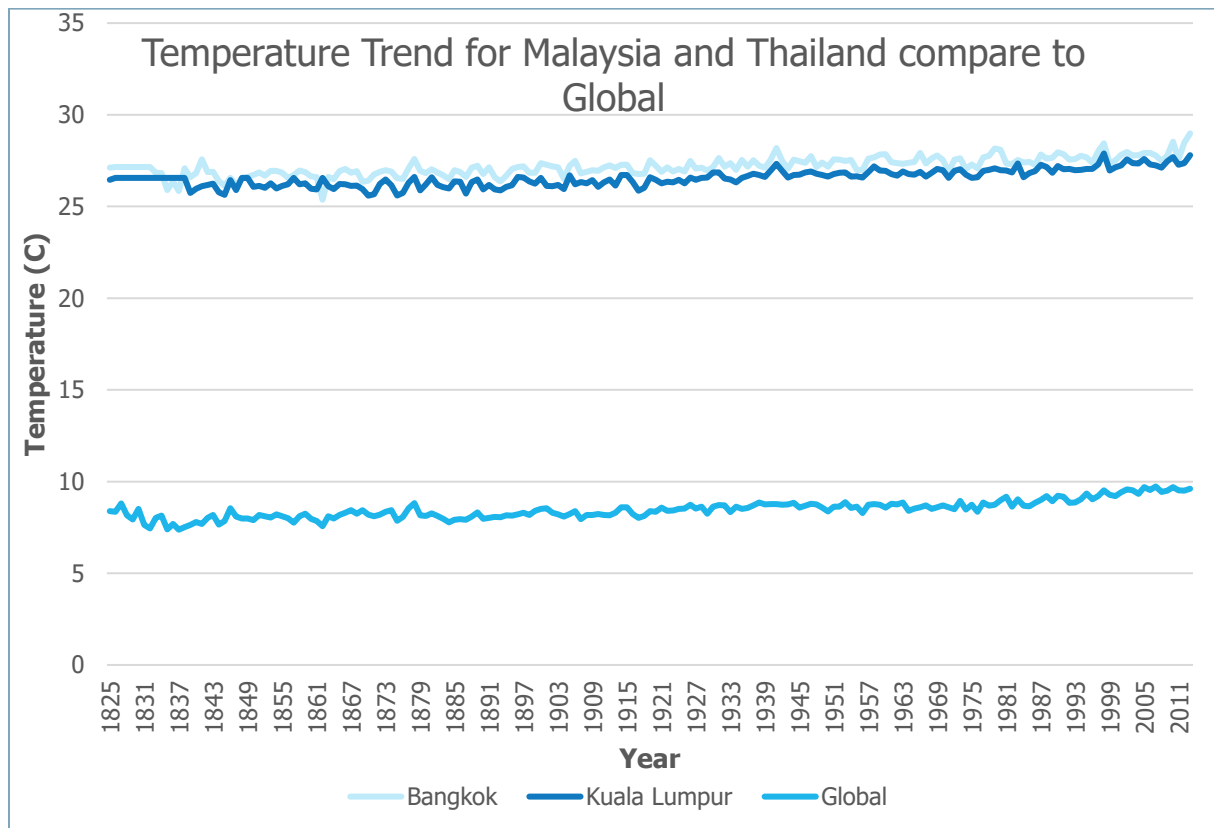
Here the line chart as a result:



Then I add in one more column which is Thailand because I want compare Malaysia and Thailand to global temperature then I go back to SQL query with following command:

```
SELECT *  
FROM city_data  
WHERE country IN ('Malaysia', 'Thailand');
```

Here the second line chart as a result:



Observation:

1. Malaysia and Thailand are tropical country, so the temperature is hotter compare to average global temperature.
2. The temperature different between global and Malaysia is around 17 degree and the differences is quite consistent over the year. The temperature in Thailand is slightly higher than Malaysia.
3. The change of temperature in Malaysia is gradually increasing where the change of temperature in global fluctuated in certain period.
4. Overall the trend line for the global temperature is increasing so the world is getting warmer. However certain period we can see the global temperature do decreasing and this show the fluctuation of the trend in that period.