

### SQL Query used to Extract Data

1)Retrieve Local data	SELECT *
	FROM city_data
	WHERE city IN ('Islamabad')
2)Retrieve global data	SELECT *
	FROM global_data

### Outline of steps taken to prepare the data to be visualized in the chart

1. I used SQL to extract desired data
2. I used Excel for further data preparation and Creating a Line Chart
3. Moving Average was calculated in Excel by "=AVERAGE(required data of 7 years)"
4. Moving Average option is also given in Charts options under the heading of series.  
I chose Trendline, As i have already calculated Moving Average manually.  
Moving Average can be calculated by using the option of moving average Under heading of Series
5. A Line Chart was created by selecting option of Line chart under the heading of Insert --> Chart--> Line Chart
6. Then I defined Title of chart and selected vertical and horizontal Axis.
7. Plot Years on X axis and local and global trends on Y- axis
8. I customised the chart by defining fine grid lines, changing background color and changing Fonts for better visualization.
9. My local temperature was available since 1816 so i take global temperature since 1816 as well for better comparison

### Observations

First of all I noticed that My local temperature average is greater than Global average(I feel alarmed and disturbed)  
Then the next observation is that this difference is maintained throughout ; till date.  
Then I found out that there is 2 degree rise in temperature, Locally and Globally from start till end.  
There is smooth line chart and there is continuous and gradual rise in temperature with the passage of the time, Unfortunately!  
This means that world is getting warmer over the Time.

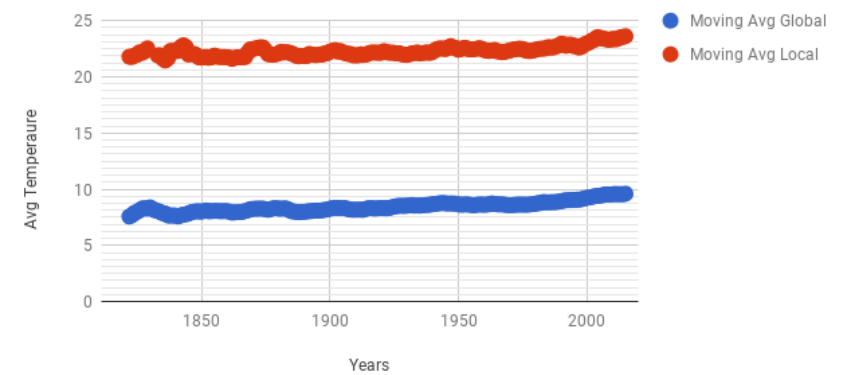
### Comparison with few different cities

I then compared the global temperature with another big city of Pakistan , i-e Faisalabad  
I spent few years in oslo, i compared temperature trend from Oslo(Norway) as well.  
I also included Capital of pakistan i-e Islamabad  
There were Four Trend lines in my line Chart now.  
I calculated moving average of all of them one by one and then plotted the line chart.  
Gave the title and subtitle, customized the colors , grid lines and background color for better visualization.

I observed that Oslo( capital of norway is much colder than remaining tren lines.  
But still the Temperature rise of 2 degrees in Oslo is same as that of other trend lines under consideration.  
The World is really getting Hotter year by year, Grievously!

### Temperature Trends

till year 2015



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Till year 2015

