



**First Project**  
**“Explore Weather Trends”**

**Course: Data analysis.**

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## 1- Extracting Data.

In this project I used two **SQL** queries to extracting data from database:

- Select city, year, avg\_temp from city\_data where city = 'Riyadh';

I choose (Riyadh) because it's the capital city in KSA, then I want to find the moving average temperature starting from 1854 until 2013 between capital city and global.

HISTORY ▾

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```
1  select city, year, avg_temp from city_data where
    city = 'Riyadh' ;
```

Success!

EVALUATE

- Select year, avg\_temp from global\_data;

HISTORY ▾

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```
1  Select year, avg_temp from global_data;
```

Success!

EVALUATE

## 2- Calculating Moving Average.

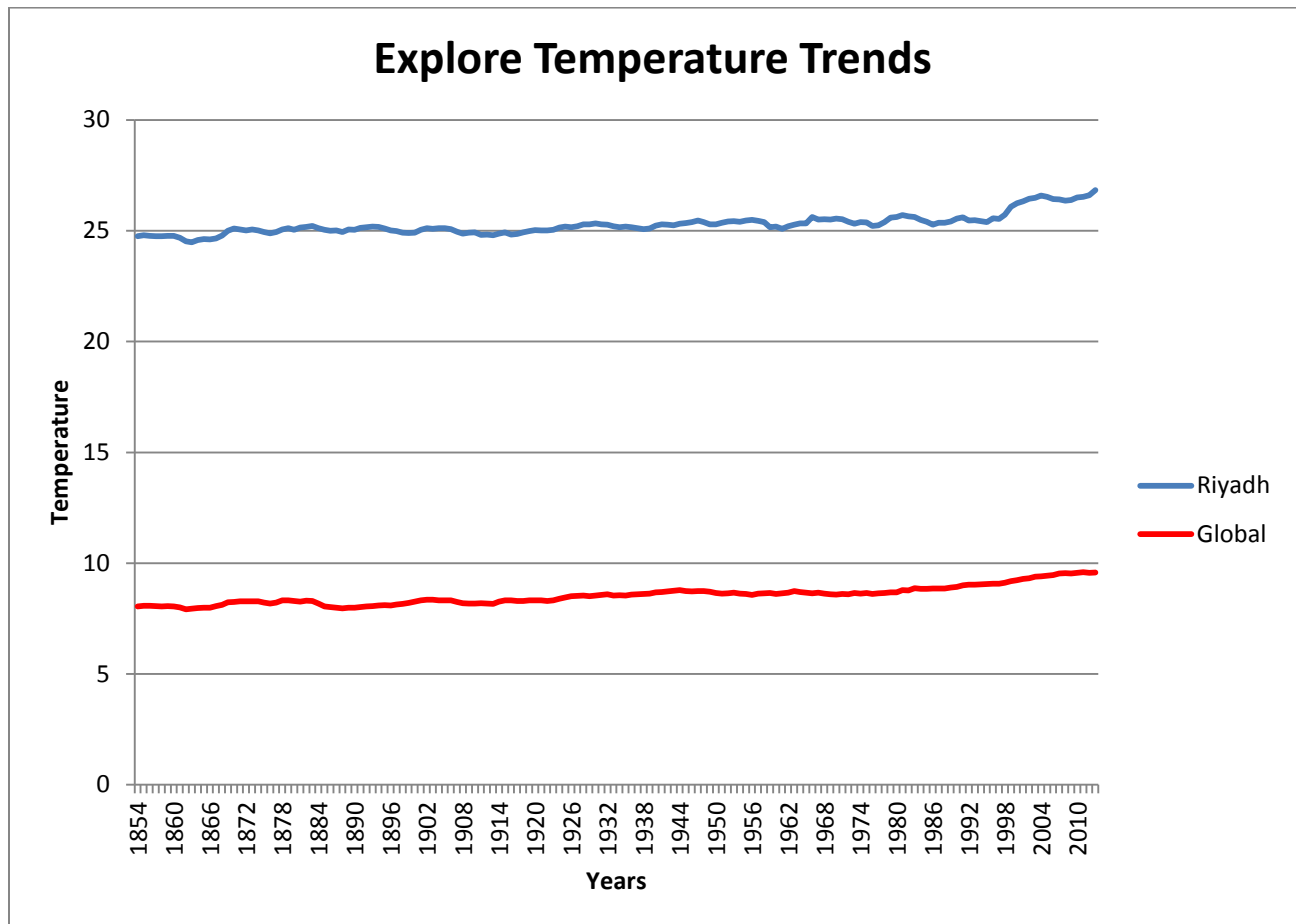
Before I start to find moving average I have to clean up some empty cells in Riyadh data..

I decided to find the moving average for every three week, by using average function in **Excel** starting with 1854 and so on.

Example of what I did;

=AVERAGEA(H7:H13)					
city	year	avg_temp	moving avg	J	K
Riyadh	1847				
Riyadh	1848	24.56			
Riyadh	1849	24.8			
Riyadh	1850	24.34			
Riyadh	1851	25.03			
Riyadh	1852	24.85			
Riyadh	1853	24.93			
Riyadh	1854	24.72	=AVERAGEA(H7:H13)		
Riyadh	1855	24.92	AVERAGEA(value1, [value2], ...)		
Riyadh	1856	24.57	24.76571429		
Riyadh	1857	24.26	24.75428571		
Riyadh	1858	25.01	24.75142857		
Riyadh	1859	24.95	24.76571429		
Riyadh	1860	24.94	24.76714286		
Riyadh	1861	24.13	24.68285714		
Riyadh	1862	23.77	24.51857143		
Riyadh	1863	24.28	24.47714286		
Riyadh	1864	25.03	24.58714286		
Riyadh	1865	25.23	24.61857143		
Riyadh	1866	24.92	24.61428571		

### 3- Data Visualization.



**Blue line:** Riyadh moving average from 1854 to 2013

**Red line:** Global moving average for Riyadh from 1854 to 2013

### 4- Observations.

- I found that Riyadh's average temperature was bigger (hotter) than global average temperature over the years.
- I found also that Riyadh temperature is quit constant until 1998.
- Also the last few years both Riyadh's and global temperatures become higher we can see from 1998 to 2013.
- Global temperature line is getting hotter (to the up) over the years in almost constant changes.