



UDACITY



أكاديمية مسك
MISK ACADEMY

Project #1

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Data Analyst

Explore Weather Trends

After reviewing

*in the last page highlighted in yellow

***Excel tool was used.**

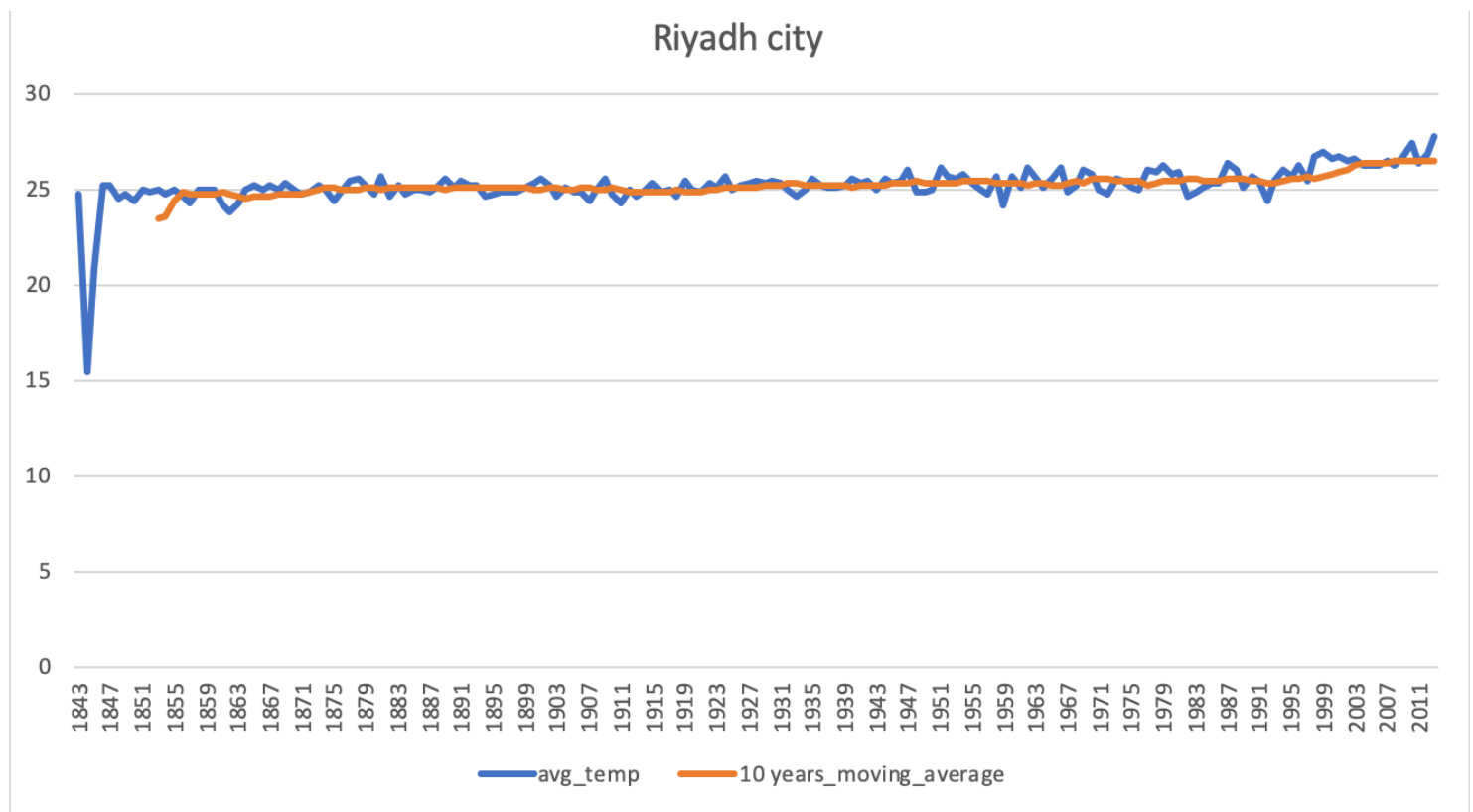
city_data

Firstly, I chose Riyadh city since it the nearest form the city_list.
I extract Riyadh city data using the following SQL query:

```
SELECT *  
FROM city_data  
WHERE city= 'Riyadh'
```

Then, I notice that there is two missing value in year 1846 and 1847
so, I handle it using average function for the rest of the data =
“25.214142”.

After that, I calculated 10 years_moving_avarge for all of the data and
finally, I created the chart shown below.

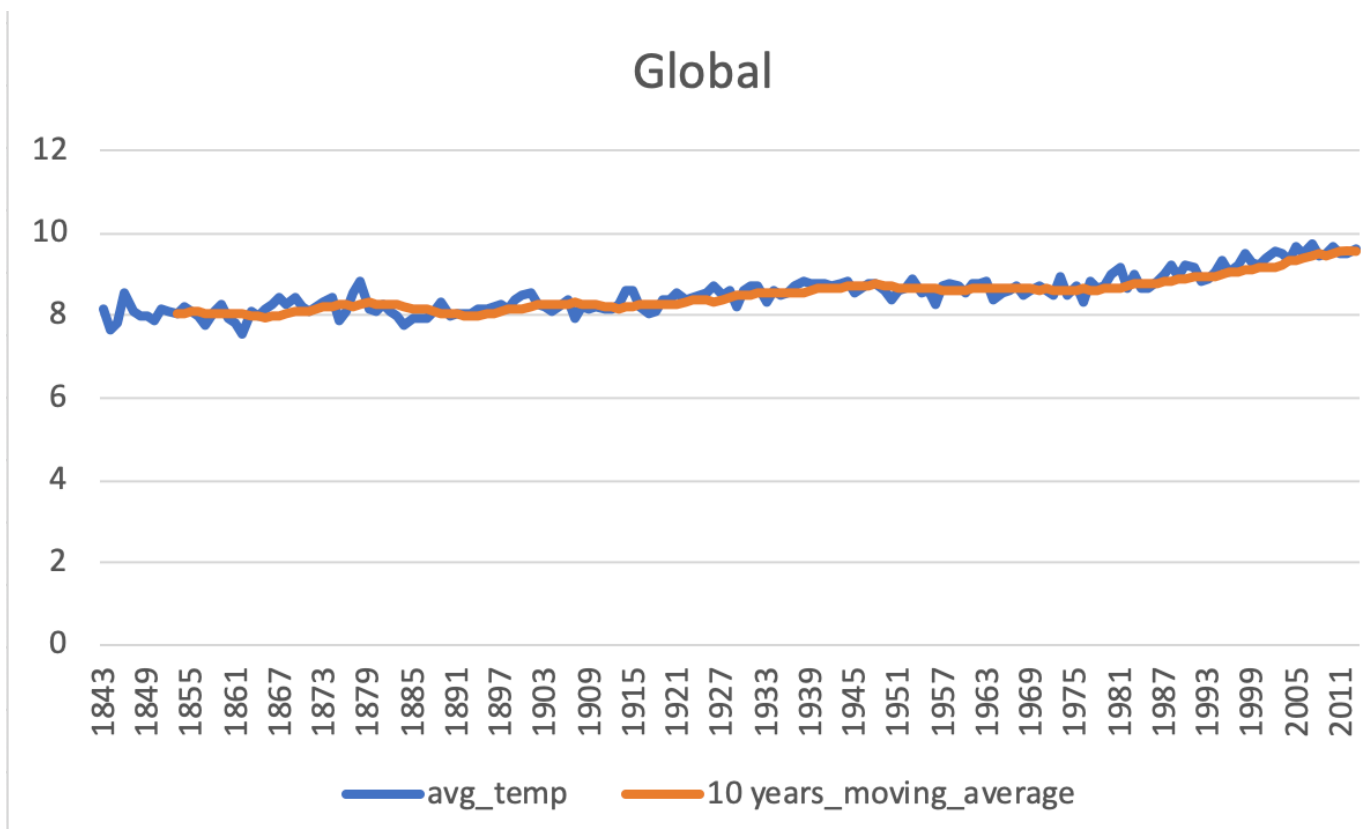


global_data

For the global data, I extract the data using the following SQL query:

```
SELECT *  
FROM global_data
```

Also, I calculated 10 years_moving_average from year 1843 to 2013 to be compatible with Riyadh data and I created the chart shown below.



observations

I notice that my city hotter on average than global. Over time, the difference was constant. The changes in my city approximately from 1843 to 1847 there was a decrease on the other hand, globally there was a little bit decrease between 1843 to 1849. The trend looks for the world is getting hotter more and more.

key consideration

My key considerations for moving average was 10 I chose it because it in middle to illustrate, small number will give me noisy data (outlier) and large number lack of details which is will not help.

* Since we have numeric attributes, I calculated the correlation coefficient as follows:

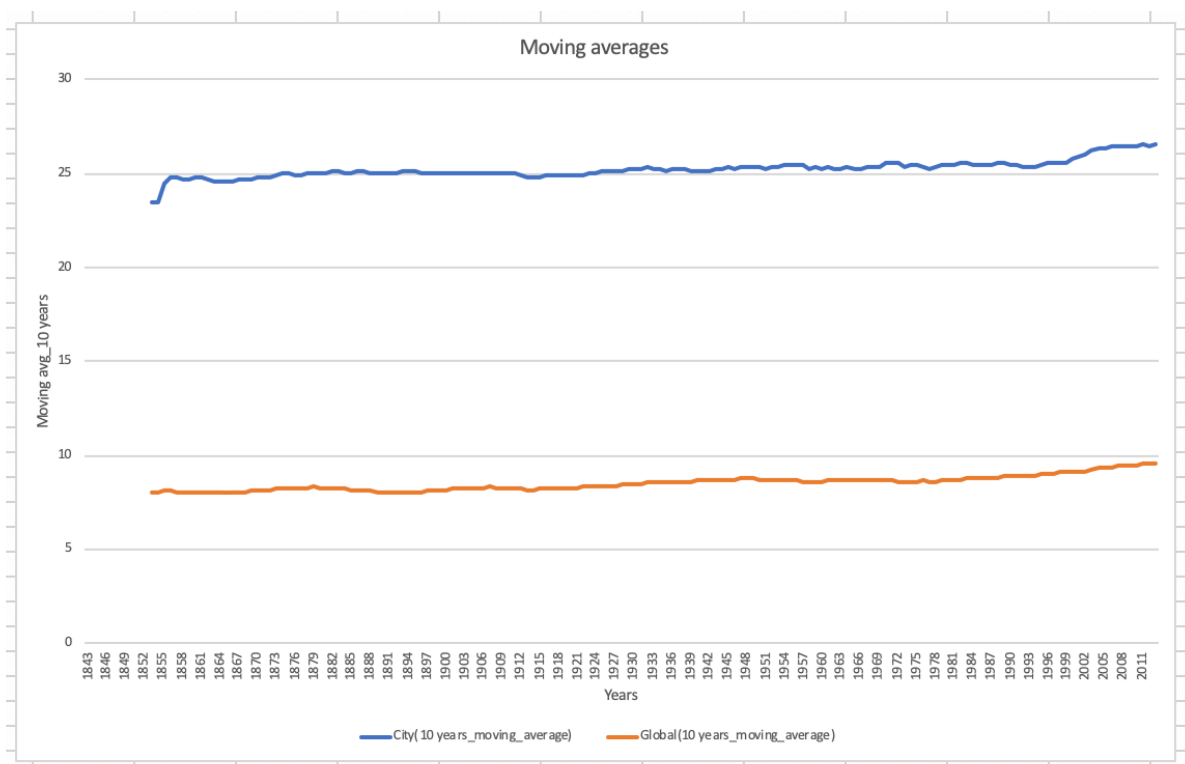
- $\sum(A * B) = 36857.6023$
- *Number of records* = 171
- Standard division
 - city=1.0408
 - global=0.464
- Mean
 - city=25.214
 - global=8.537

Final answer=0.5997 > 0 that means it's positively correlated

*The higher value the stronger correlation

*After reviewing

The chart shown below is about the moving average for both city and global.



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