

Exploring Weather Trends – Project

Udacity Data Analyst nanodegree

By

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Outline:

In this project I will show the differences between my city average temperature and global temperature.

First step I took csv file that contained data about my city 'Riyadh' average temperature.

Second step I took csv file that contained data about the global average temperature.

Third step moved all the data to excel sheet.

Fourth step there were missing data on the Riyadh average temperature I cleaned the data by calculating the average temperature of the other years and replacing the missing data with the average temperature of the other years.

Fifth step I calculated the moving average of the Riyadh average temperature by using the previous 10 years as the new average.

Sixth step same as the fifth but for the global average temperature.

Seventh step I marked the data that I will use for example 10-year MA from the year 1852 to 2013 for Riyadh because this is the only years that I have the average temperature.

Eighth step marking the years that I will use for global average temperature starting from 1852 to 2013 to be same as previous step.

Nineth step choosing the visualization that I will use I went with line chart because it is easier to compare to lines.

Tenth step drawing the line chart.

SQL Queries:

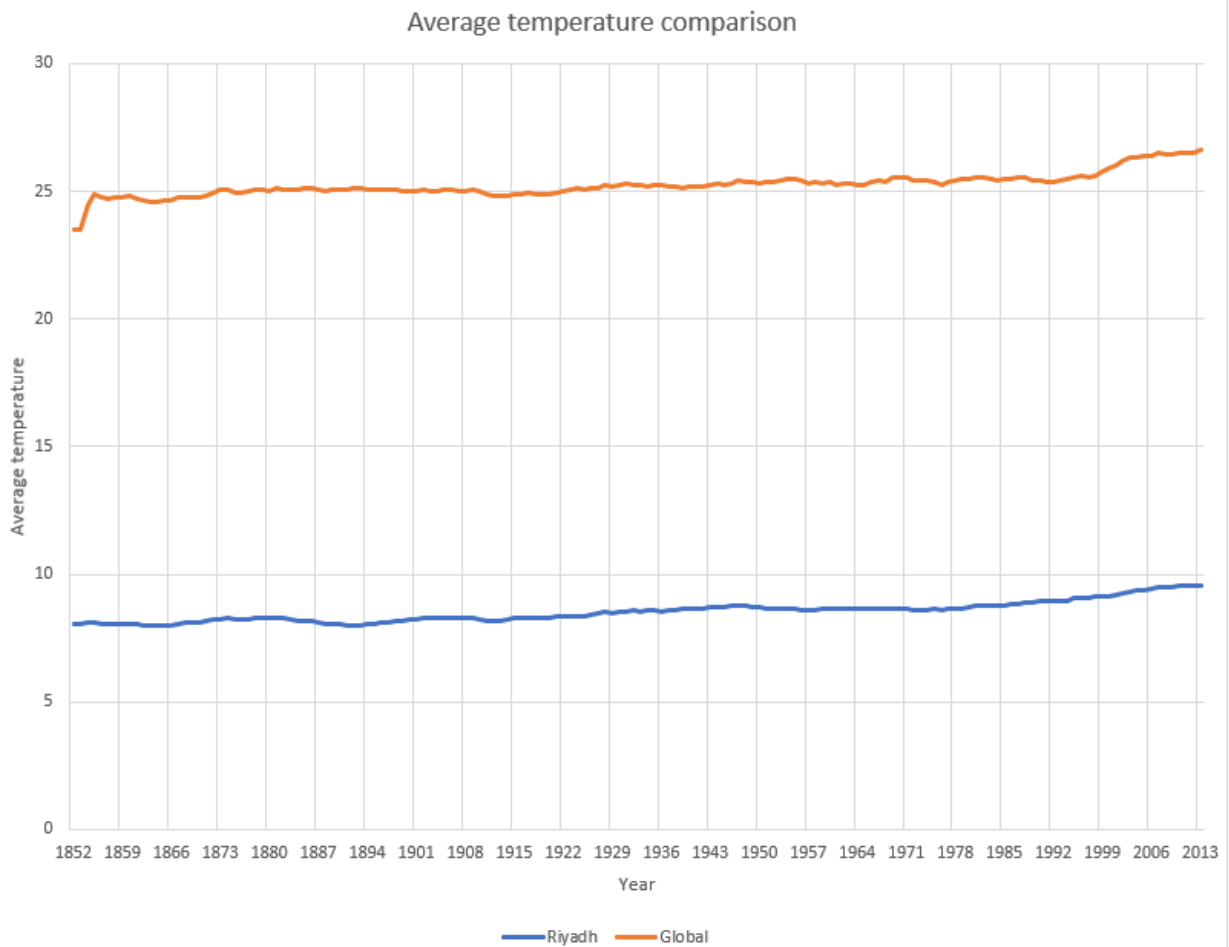
For Riyadh:

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

For Global:

```
select *  
from global_data
```

Chart:



Observations:

- 1- The average temperature in Riyadh is much higher than the global average.
- 2- In the first 5 years of Riyadh average temperature there was a big jump by about 1 degree Celsius.
- 3- From year 1997 average temperature in Riyadh was 25.5 degrees Celsius and year 2007 average temperature in Riyadh was 26.5 degrees Celsius there was 1 degree Celsius jump in 10 years.
- 4- The average temperature in Riyadh is growing faster than the global average from the start it was 23.5 degrees Celsius and at the end is 26.6 degrees Celsius jump of 3.1 degrees Celsius in 161 years.
- 5- There were no big changes in the global average temperature it starts at 8 degrees Celsius and ends at 9.5 degrees Celsius only 1.5 degrees Celsius jump in 161 years.