Exploring Weather Trends Project

Outline:

I live in Saudi Arabia, Eastern Region and the first step was to find out what are the data available in my country. Riyadh is the nearest city to my region which the trends and analysis will be about in this project.

- Microsoft Excel was used to prepare the charts and analysis and performing the calculations.
- The trending was based on 10 years moving average
- Key considerations: Minimum and Maximum temperature values.

Queries

1. Find out what cities are available in the country

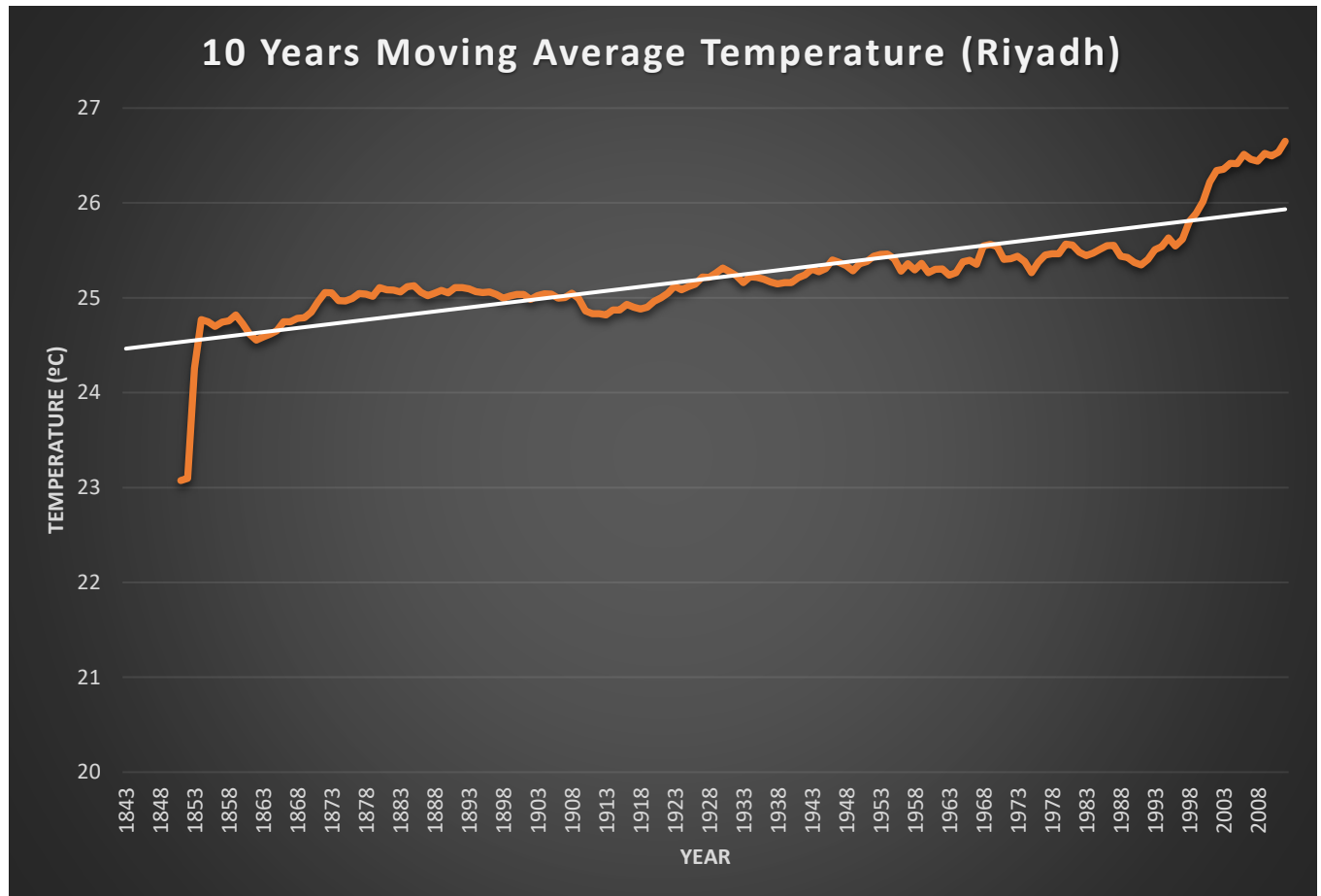select city, country from city_list where country = 'Saudi Arabia';

2. Obtaining the city temperature data

select * from city_data where city = 'Riyadh';

3. Obtaining the global temperature data
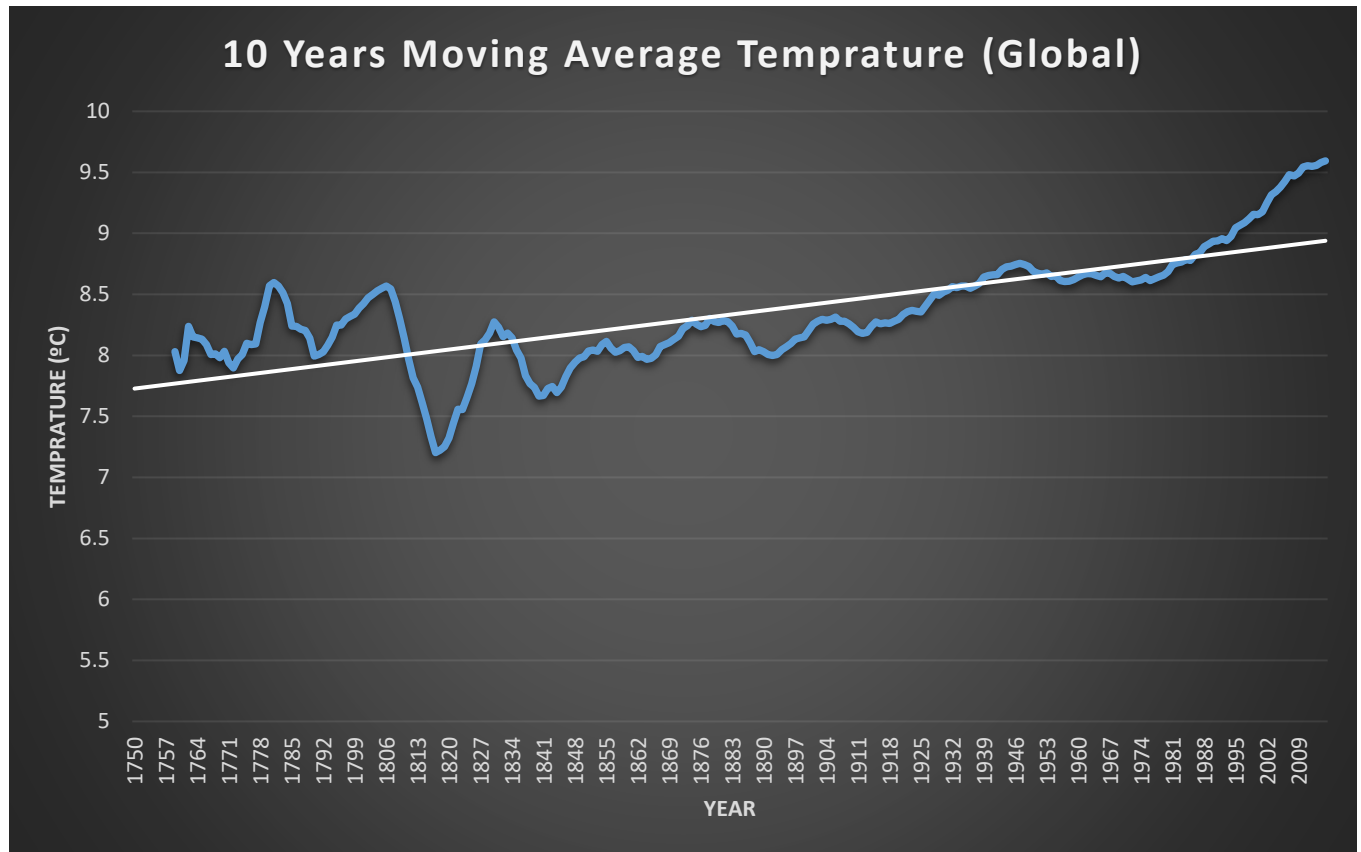
select * from global_data;

Riyadh Moving Average Temperature

Observations

1. The trend line shows that Riyadh average temperature is increasing over the years. (Hotter weather)

2. The minimum temperature of Riyadh was 15.45 (ºC) which was encountered in 1844

3. The maximum temperature of Riyadh was 27.78 (ºC) which was encountered in 2013

4. For the period (1852-1855) there was the biggest increasing trend of temperature from 23.07 ºC - 24.78 ºC

Global Moving Average Temperature

10 Years Moving Average Temprature (Global)

(Chart: Y-axis labeled "TEMPRATURE (ºC)" ranging from 5 to 10; X-axis labeled "YEAR" ranging from 1750 to 2009. A blue line shows the 10-year moving average temperature with a white linear trend line increasing over time.)

Observations

1. The trend line shows that Global average temperature is increasing over the years. (Hotter weather)

2. The minimum temperature was 5.78 (ºC) which was encountered in 1752

3. The maximum temperature was 9.83 (ºC) which was encountered in 2015

4. For the period (1807-1817) there was a decrease of global temperature but the trend started to increase again afterward

Looking at both line charts for Global and Riyadh 10 years moving average temperature, the trend of temperature is increasing and the weather is getting hotter over the years.