Exploring weather Trends

Project 1

Overview:

In this project, I have analyzed local temperature of nearest big city Riyadh in Saudi Arabia, and compare it with global temperature.

Goals:

- Extract the data from the database using SQL.
- Open up the CSV using Excel
- Create a line chart that compares Riyadh temperatures with the global temperatures
- Make observations about the similarities and differences between the world averages and your Riyadh averages.

1. Extract the data from the database using SQL.
    - First I need to know if my city is in the city_list table using the following SQL query:

      SELECT * FROM city_list

      I found meca and Riyadh from Saudi Arabia I choose Riyadh.
    - To extract Riyadh data from city_ data table, used the following SQL query:

      SELECT * FROM city_data

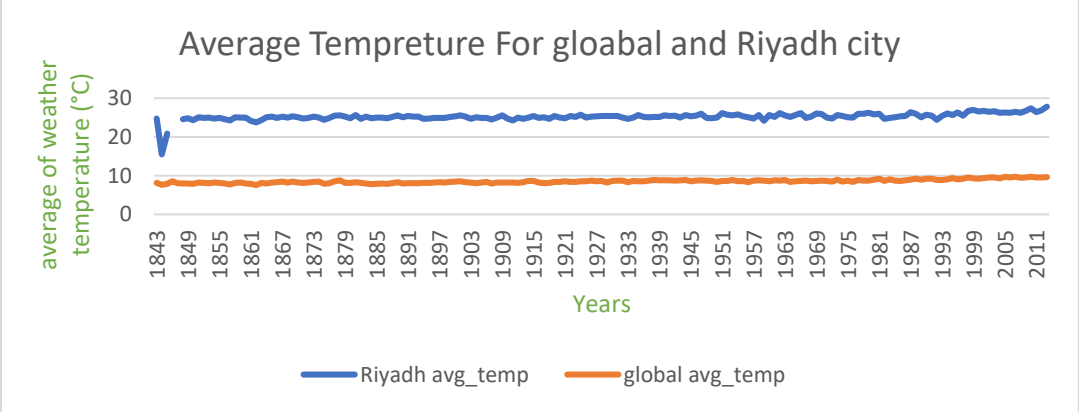
      WHERE city='Riyadh';

      Then download CSV file
    - To extract data from global_data table, used the following SQL query:

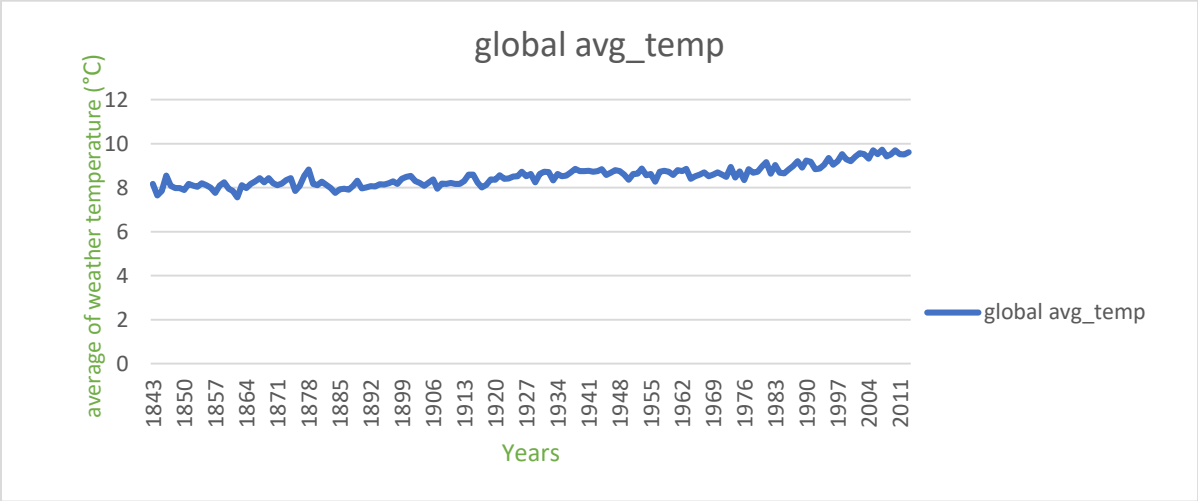
      SELECT * FROM global_table

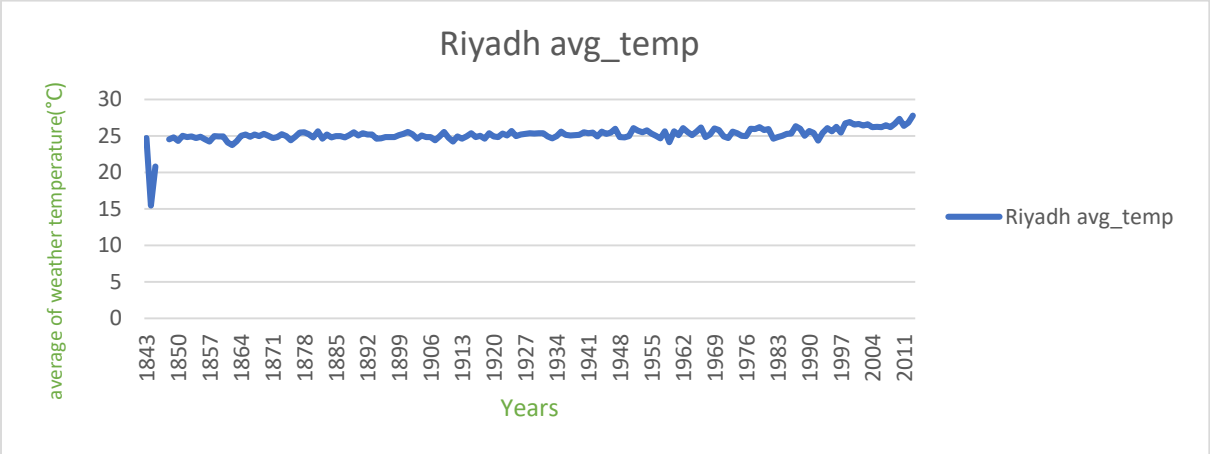
      Then download CSV file, delete any data before 1843 or after 2013

2. Line char for the data
    - To create a line chart that contains both Riyadh data and global data where the y-axis represent average of weather temperature while x-axis represent the years between 1843 and 2013



- Other charts for global temperature and Riyadh city temperature separately





3. Moving Average

To observe the trends in temperature I calculated moving average, I used 11 years moving average

- Excel command for 11 years moving average:

  =Average(B2:B12)

4. observations

- Global average temperature is about 8.3 Degree Celsius but in Riyadh city average temperature is about 25.2 Degree Celsius.
- Both line in global and Riyadh city display a slow increase trend .
- Riyadh city temperature is hotter than global average temperature.
- The different of average temperature between Riyadh and global has been consistent over time
- The world temperature is getting hotter.