Exploring Weather Trends Project
Riyadh, Saudi Arabia

Introduction

The First thing, I have been provided the temperature database from the Udacity from where I have extracted the data related to global temperature and Riyadh city temperature. I analyzed the temperature around the global with the capital city I live by extracting the data.

Steps:

I had to use a basic SQL query to extract the data.
Following queries has been used to calculate the average temperature database:

- Write a SQL query to extract the city level data. Export to CSV.

  Query to extract city level data:

  SELECT * FROM **city_list** where country='Saudi Arabia' AND city='Riyadh';

  Query To select data from the City database

  SELECT year,city,country,avg_temp from city_data where city='Riyadh';

  Then I downloaded CSV file

- Write a SQL query to extract the global data. Export to CSV.

  Quert to Data about global temperature such as (year, Average)

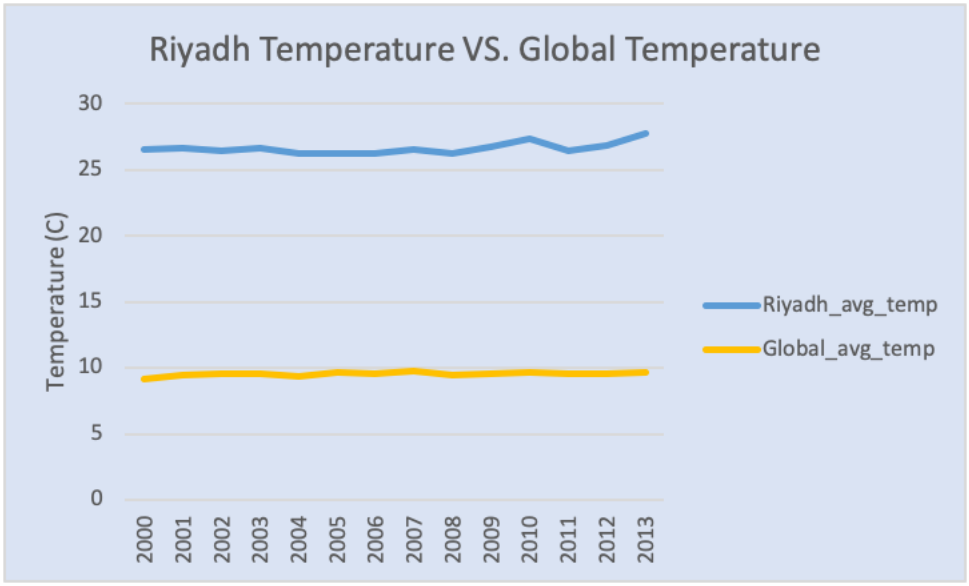
  SELECT * FROM global_data;

  Then I downloaded CSV file

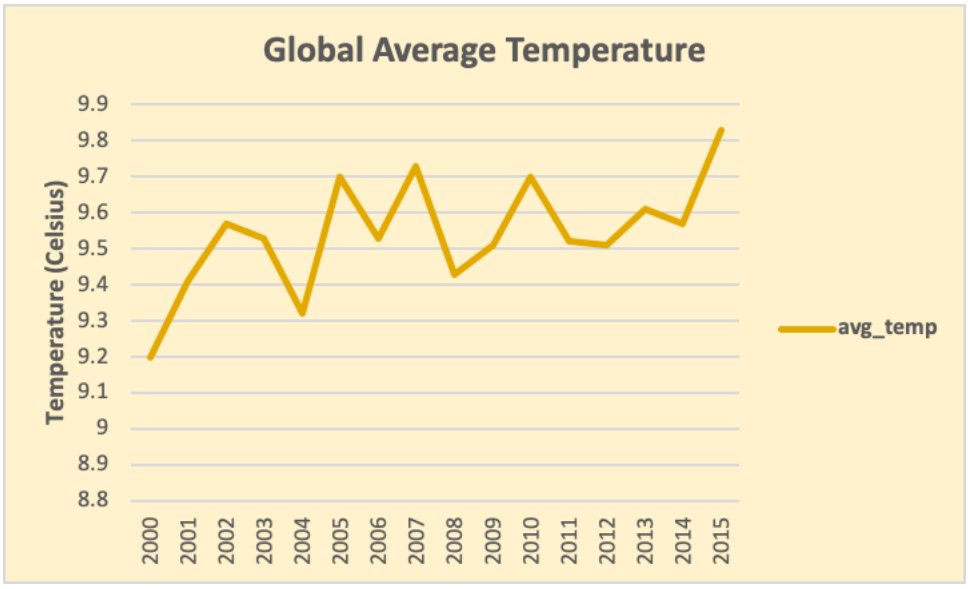
13 Years Moving Average Comparison:

I have done 13 year Moving Average to get the smooth line chart.

I used a command =AVERAGE in Excel to see the Moving Average Value



I had plotted Line chart for global data separately to observe difference between



Observations

1. Riyadh has logged an extreme outlier average temperature of 27.37°C and 27.78°C on 2010 and 2013.
2. Riyadh city is getting hotter over time.
3. The Chart of Riyadh Vs Global Temperature has very big difference in the temperatures.
4. The core conclusion of this project is Riyadh is hotter than global temperature and temperature is increasing day by day due to changes in the climate.

Tools

1. SQL: To extract the data from the database
2. Microsoft Excel:
    - To calculate Moving Averages of global and city temperatures
    - To plot Line Chart

***Note**: the resource of picture in the cover from:
https://climatekids.nasa.gov/menu/weather-and-climate/