# Explore Weather Trend

1ˢᵗ Outline of Step:

- Tools been used for each Step:
  - SQL to Extract Data from Database by using Select, From, and Where for it.
  - The Queries were for :
    - Global Cities : Select * From global_data
    - Local City : Select * From city_data Where city = 'Riyadh'.

  - Excel been used for Manipulate and Visualize Data from CSV files.
- The calculating moving average:
  - Been done after cleaning and matching the years between local and global Average Temp.
  - The matching years starts from 1843 to 2013 for the accuracy of the data.
  - For missing data been filled within the average of 10 Years which were only two missing years 1846 & 1847, and the average is 23.1 Degree.

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2nd line Chart:
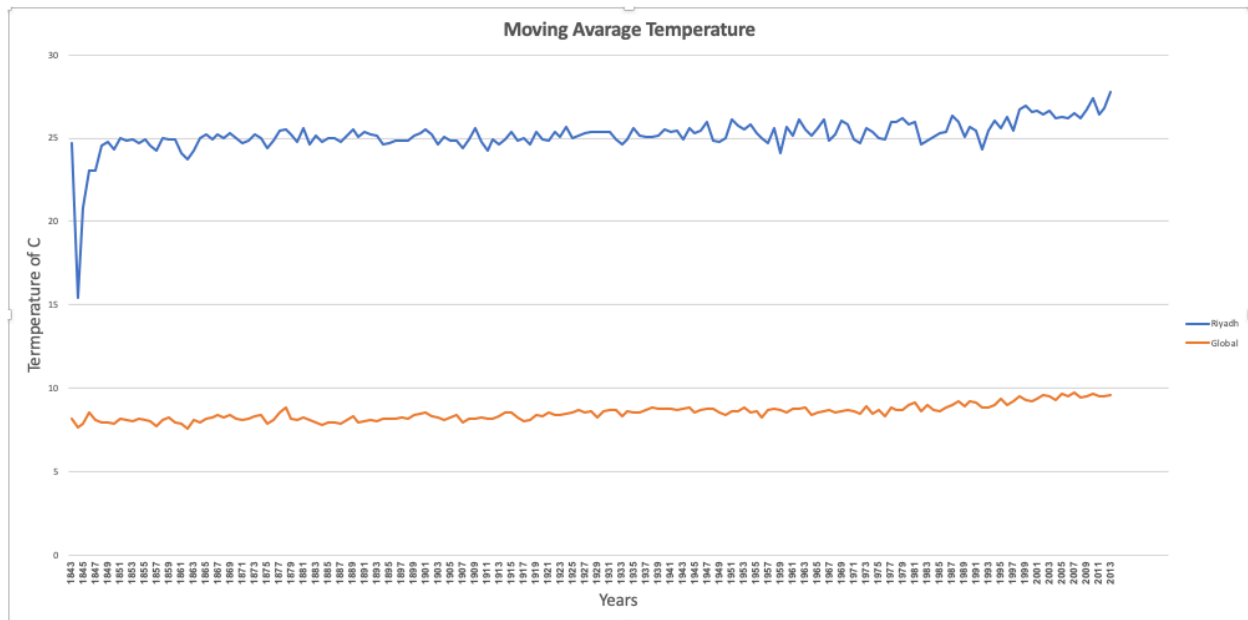
- The selected columns for the chart are Years, Local Avg Temp, and Global Avg Temp Columns then choosing Line Chart which is shown above.

3rd The Observations:

- In 1844, the Average Temperature of Riyadh, Saudi Arabia seems there are missing data or it was unique year than the others of the year as it shows average of 15 degree which is the minimum degree.
- The Average Temperature between Riyadh and Global showed there is a huge gap and Riyadh is higher than global as Riyadh average is 25.2 Degree and Global average is 8.5 Degree.
- Since 1993 until 2013, the line chart showed the temperature is increasing to higher average in both locally and globally.
- In Global Average temperature, from 1890 until 2013 the average went below 8 Degree only 2 times which were on 1890 and 1907.
- Regarding the data since 1843 to 2013:
  - Riyadh maximum degree is 27.8 and Minimum is 14.5
  - Global maximum degree is 9.7 and Minimum is 7.6