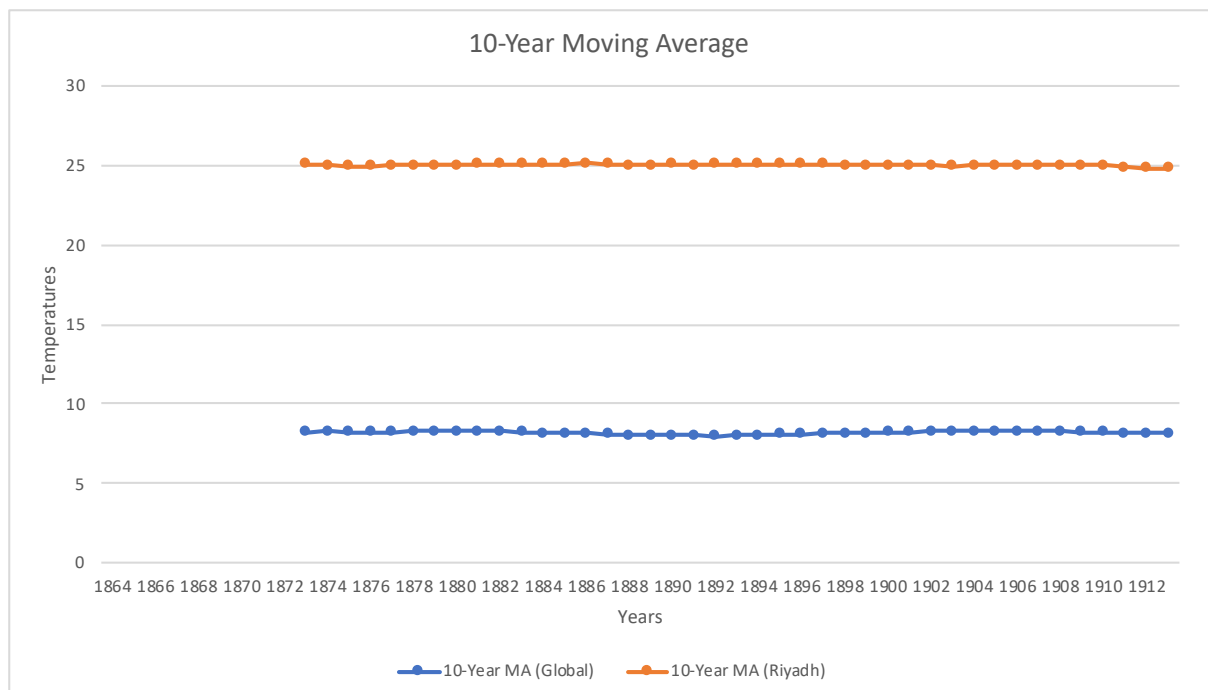


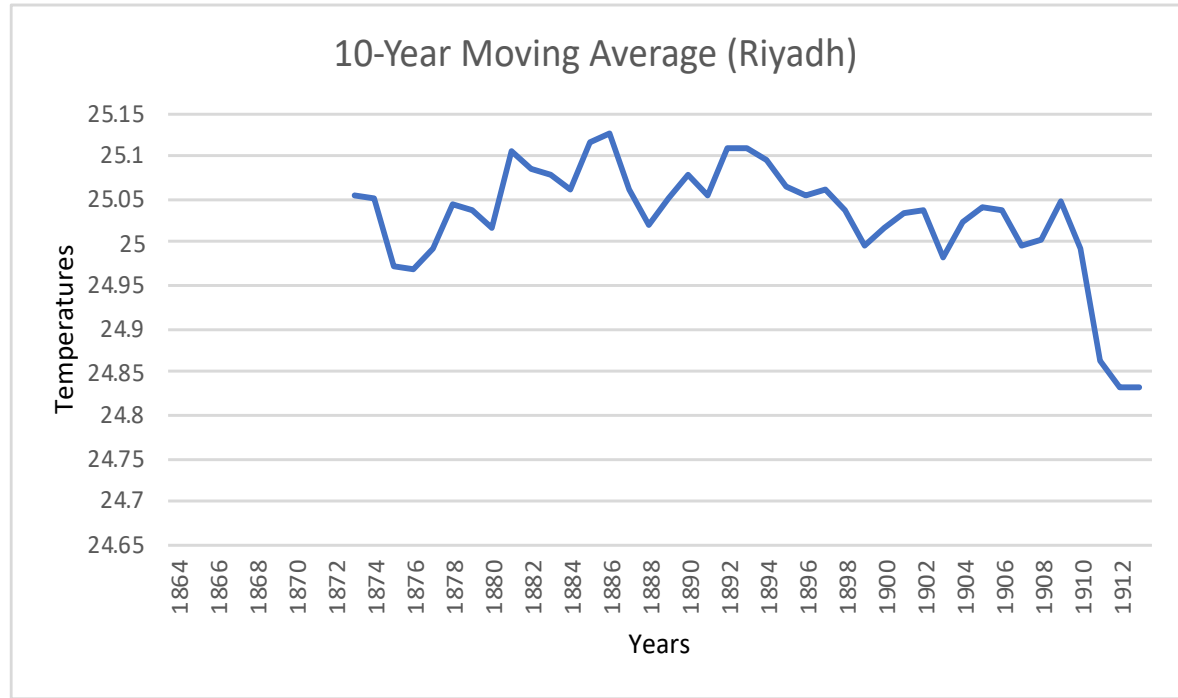
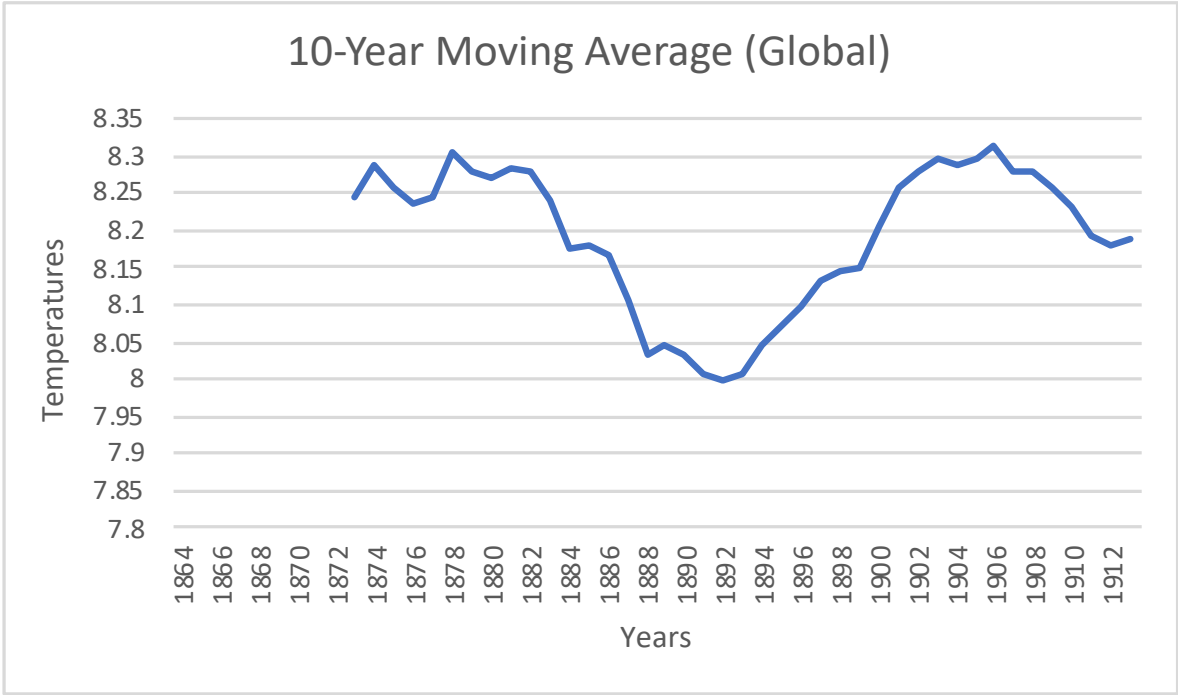
P0: Explore Weather Trends

Steps to prepare the data to be visualized in the chart

1. Used the SQL query to extract global data and Riyadh data.
Some of the queries used:
`SELECT * FROM city_list WHERE country = 'Saudi Arabia' ;`
`SELECT year, avg_temp FROM city_data WHERE city = 'Riyadh' ;`
`SELECT * FROM global_data ;`
2. Chose the time period from 1864-1913 to calculate the global average and Riyadh average by using Excel.
3. Calculated the 10-year moving average for Riyadh, by using function Average to calculate the average temperatures for the first ten years, then move to the second year to the eleventh year to calculate the next average and so on, use the same way for the global average.
4. Created the line chart with a fifteenth value of average for more accurate and easier for comparison, also the same time period for both variables.

10-Year Moving Average





Observation

- There is a huge difference between the temperatures of the two variables because of the Riyadh average temperature is hotter than the global average temperature.
- The global average is oscillating with approximate values (ex. 8.3, 8.1) compared to Riyadh average (ex. 24.9, 25.1).

The similarities for global average and Riyadh average:

- The more years passed, the more decrease in temperature will be.
- The overall moving average is consistent.

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