P0- Exploring Weather trends

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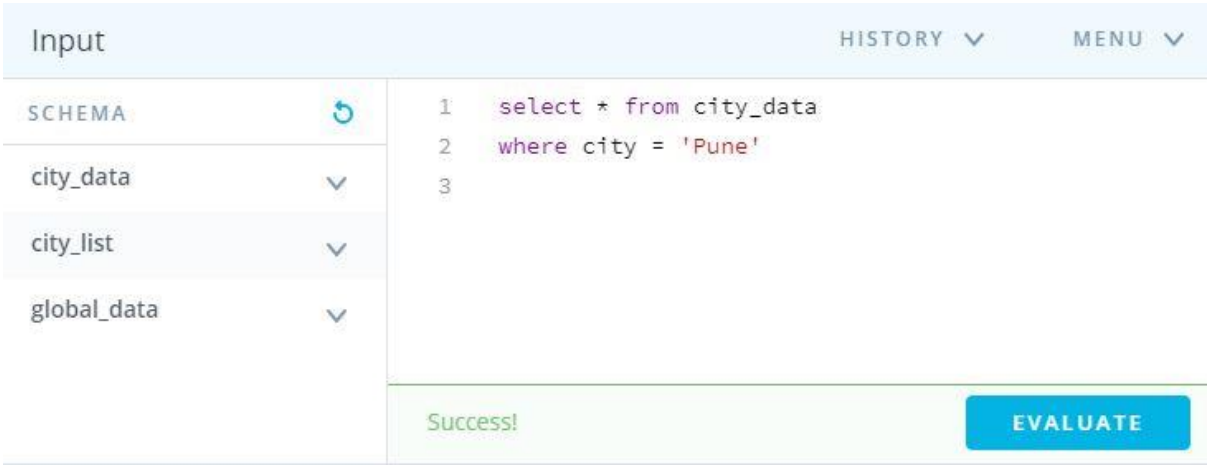
Steps followed:

1. Extract the data from the database using SQL Queries:

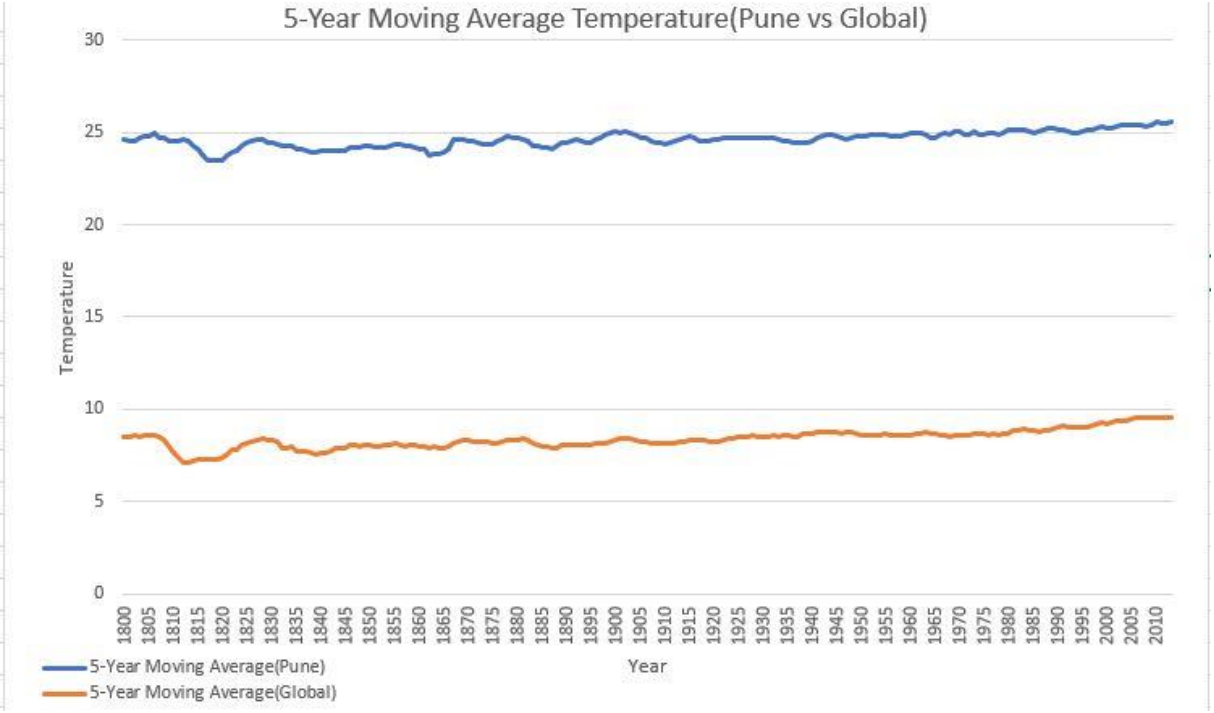


2.Download the data as csv(Using Microsoft Excel):

a). Replacing the missing places by the respective mean values.

b). Calculating the 5-Year Moving Average for global average temperature and Pune's average temperature.

c).Plotting the corresponding line charts:



Based on the above line chart, the following are my observations:

1. Pune has consistently been a hotter city as compared to the global average temperatures over the considered period.
2. Pune is consistent with the global trend of change in average temperature.
3. Over the last century(1910-2010), the average temperature in Pune has increased by 1.5-degree Celsius, whereas globally it has increased by 0.77-degree Celsius.
4. In the two decades of the 20th century(1980-1999), the average temperature in Pune has generally fluctuated around 25-degree Celsius with no constant trend.
5. However, in the 21st century, there has been a sharp increase in the temperature pf Pune by 0.35 degree temperature rise in Pune as compared to the last decade of the 20th century.
6. On a global scale, the average temperature has consistently been increasing over the last few centuries.
7. The average global temperature has increased from 8.62-degree Celsius to 9.48-degree Celsius so far in the 21st century. This means, that the global average temperature has increased by 0.86-degree Celsius in just 13 years which proves that the Earth is heating up at a quicker rate.

Assumptions: We have considered the global data from 1796-2013 as the data from Pune is available for that period.