1. Downloaded city data and global data using sql query from work space in csv format.

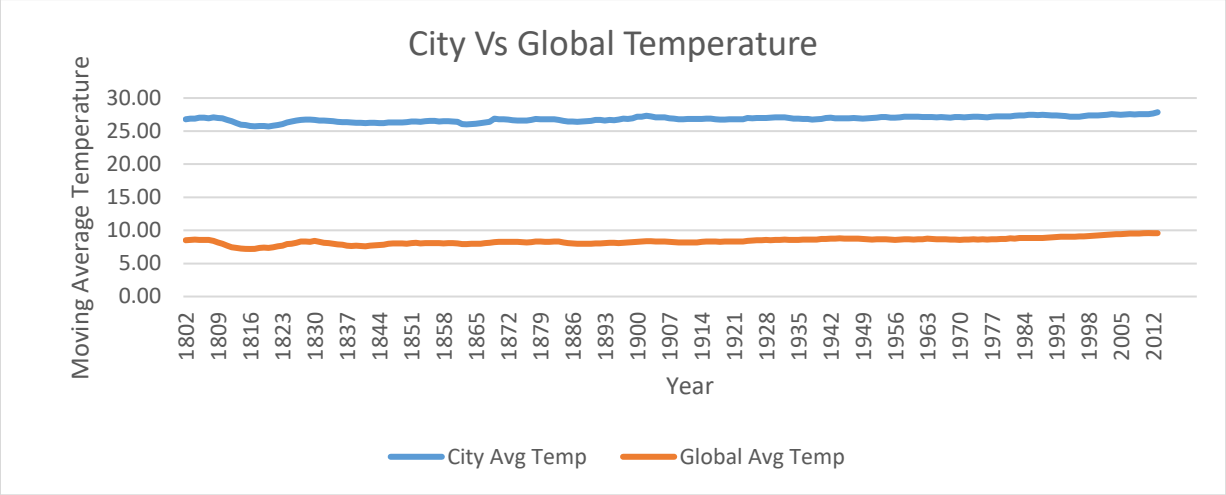
   Select year, avg_temp from city_data where city = 'Hyderabad' and country = 'India';

   Select year, avg_temp from global_data

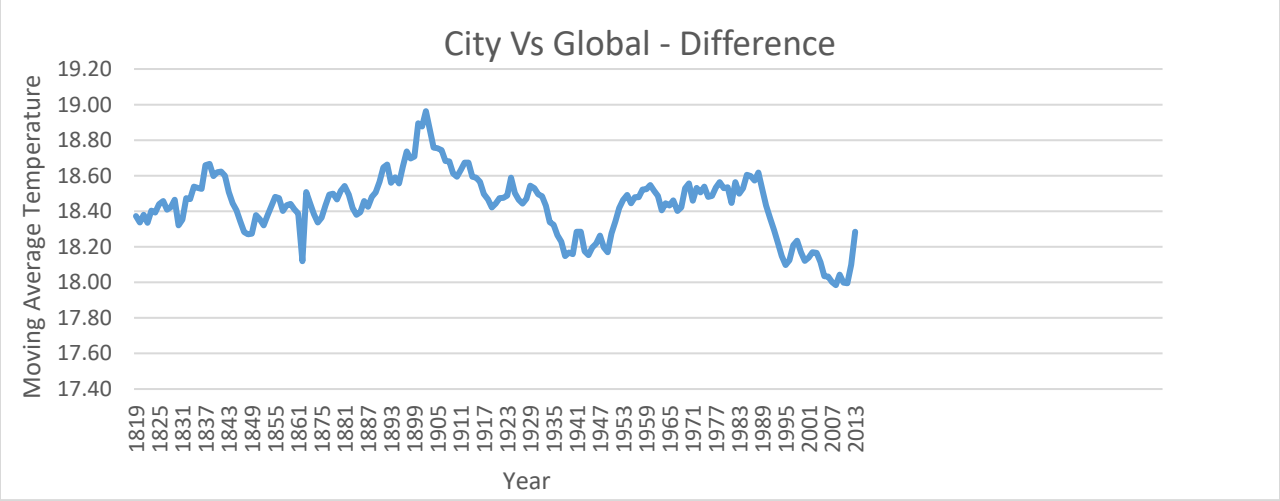
2. Combined the Data into a single worksheet based on years
3. Calculated 7-day moving average for all the years and plotted line graph for the same
4. While deciding on visualization, I gave years on x-axis and temperatures on Y-axis. The line graph gave more clear understanding of the trend.

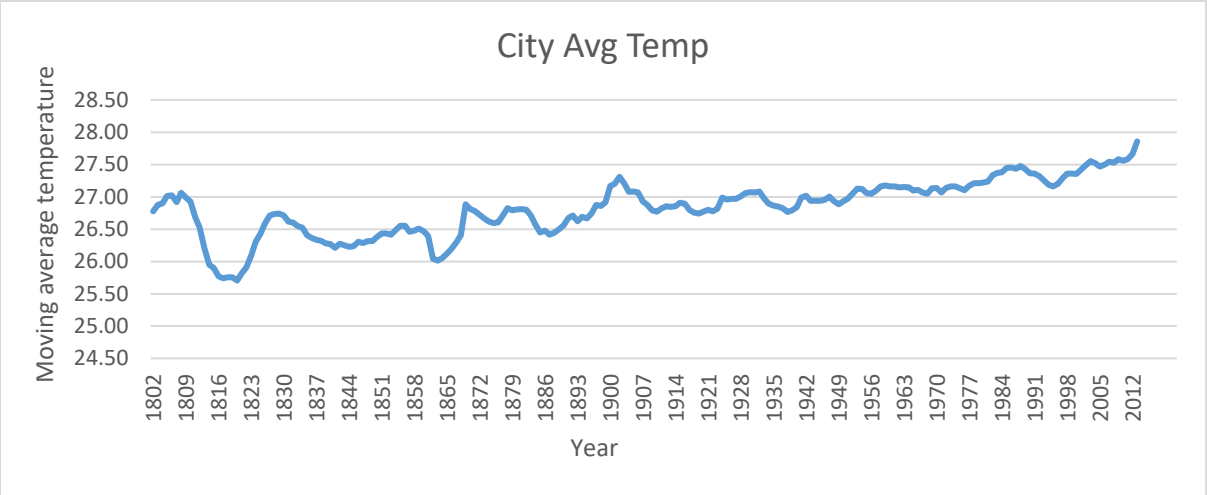
Observations:

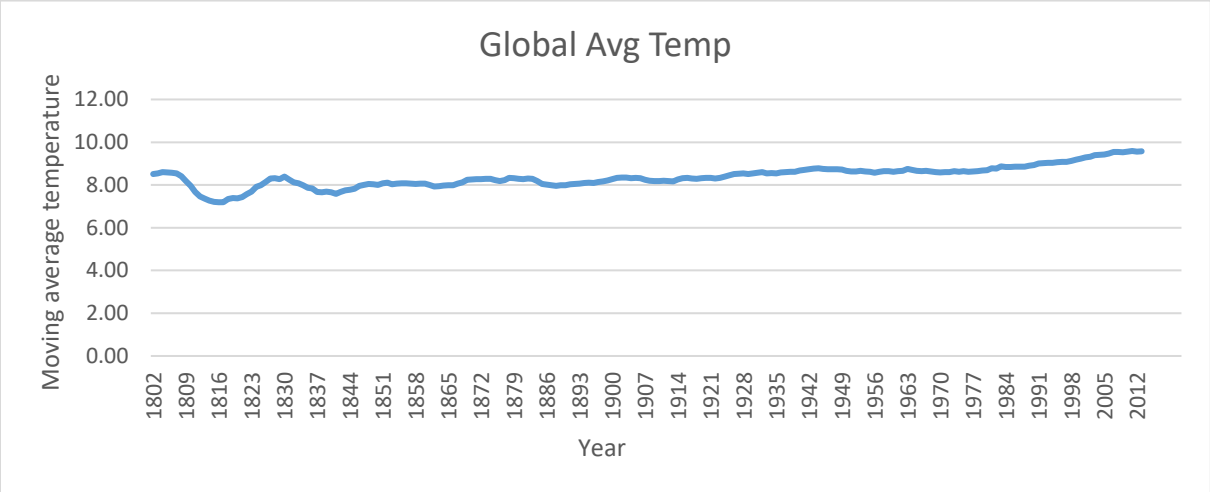
1. The City I live in i.e Hyderabad is much hotter that the global temperature as we can easily see sight the difference in the chart.



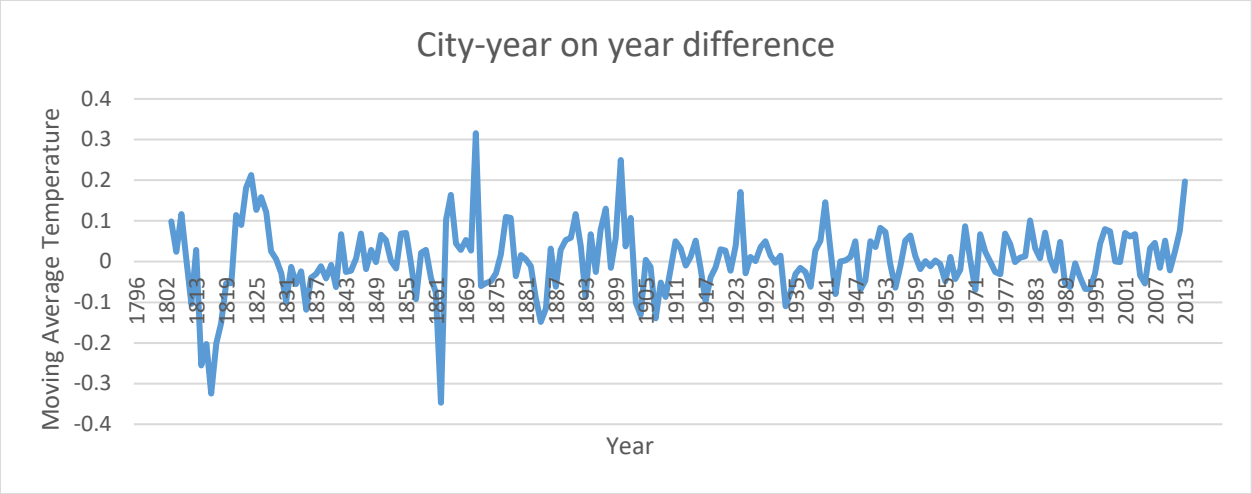
2. This difference plotted is moving average of (city avg_temp – global avg_temp). Over the time the difference in temperature between Hyderabad and global avg_temp is in declining trend.
3. There can be two implications from this observation. Either the City's avg_temp is decreasing or Global avg_temp is increasing. However, from graph 3 and 4 where the trend of city and global avg_temp are plotted separately we can observe that both city and global temperatures are increasing hence the difference in city and global is decreasing because the global temperature is increasing at higher rate.

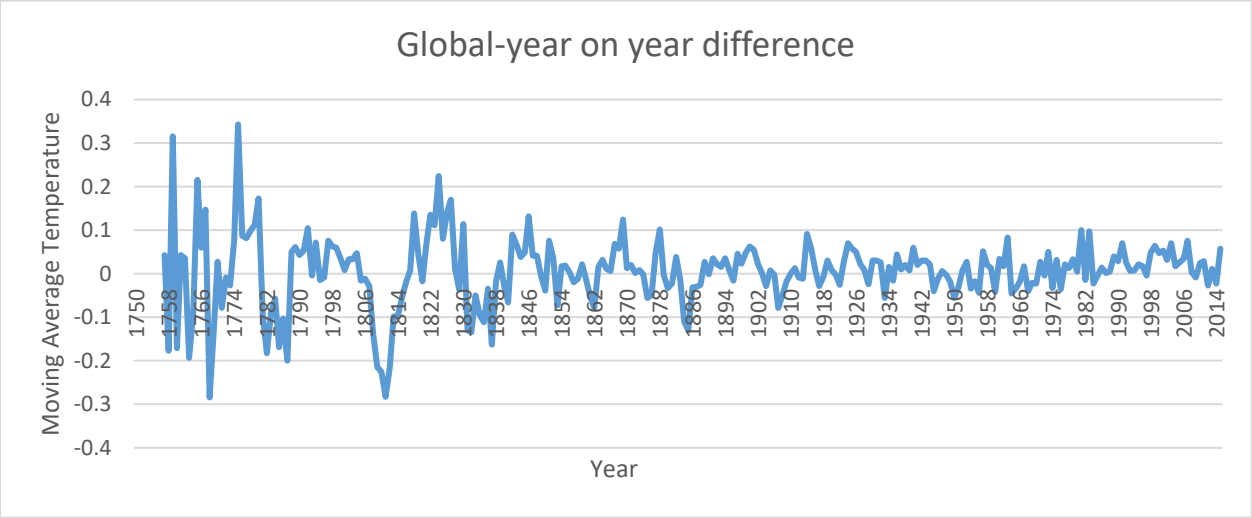






4. The year on year difference is calculated by calculating the difference of current year from the previous year and taking moving averages of all.
   We can observe that over the years the variation in the city temperature is declining and at the same time observe that the difference is moving upward.
   Similar pattern is observed in Global temperature where the variation in the avg_temp is decreasing and the trend is moving upward indicating that it is getting hotter.





Hence, I observe that there is an increase in temperature both in city and globally. It is in an alarming state and measures should be taken to curb it.