Data Analyst Nanodegree

Project 1: Explore Weather Trends

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STEP1:-To extract CSV file: SQL codes:-

CITY	SQL COMMAND
To select city in India	SELECT *FROM city_list WHERE country='India' ;
For city data	SELECT *FROM city_data WHERE country='India' AND city='Kanpur' ;
For global data	SELECT *FROM global_data ;

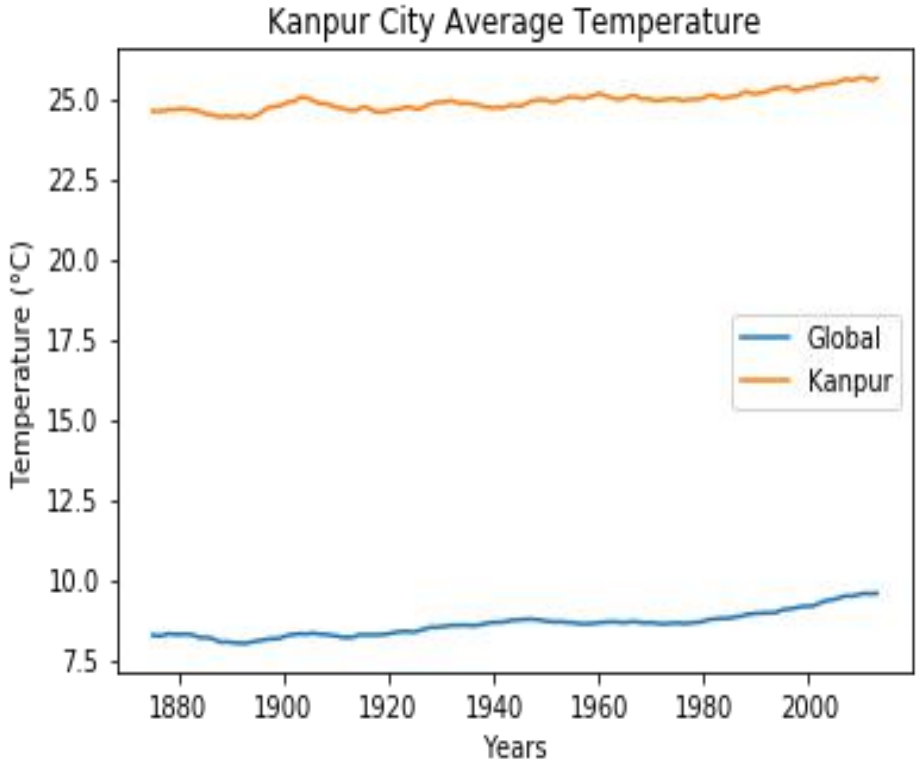
STEP 2 :-To calculate MOVING AVERAGE

- To get a more accurate mean I calculated the moving average of the temperature of the given data
- I calculated 10 years moving average in order to get a smooth line chart

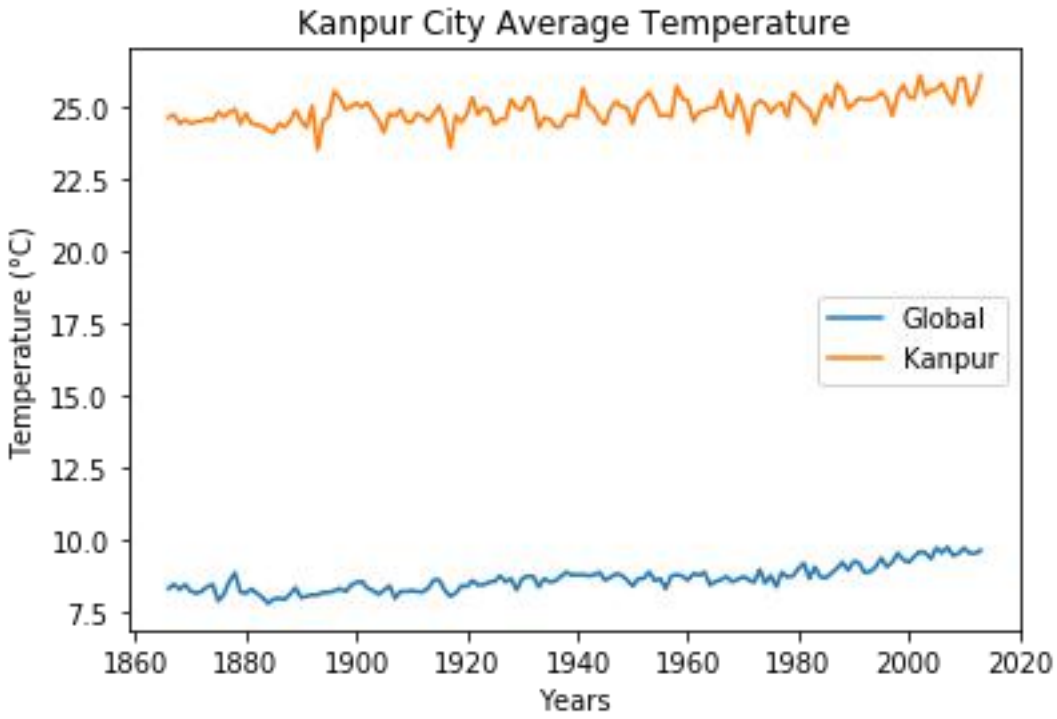
MOVING AVERAGE	EXCEL COMMAND
10 years moving average	=AVERAGE(starting row:ending row)

STEP 3 :- To plot line chart for the city and global to compare their trends.

FOR MOVING AVERAGE LINECHART:



LINECHART:-



OBSERVATION:-

- GLOBAL average temperature is varies between 8.0 to 9.55 Degree Celsius but Kanpur city average temperature varies from 24.39 to 25.64 Degree Celsius.
- If comparing the Global average temperature and Kanpur average temperature then the Kanpur city is hotter then Global average temperature.
- According to the graph and above table the difference between Global average temperature and Kanpur average temperature is been consistent over time.
- Kanpur and Global average temperature have similar kind of trends. During early years, both trends seems

to have ups and downs then approx. around 1992 the moving average temperature starts to increase at a steady rate.

- According to the graph the world is getting hotter because from 1804 to 2013 temperature is increasing.

From the line chart we can see that eventually the graph is moving upwards which means the global temperature is rising which is directly proportional to increase in temperatures of the city.

Global Temperature ∝ Kanpur Temperature

Final Conclusion:
The World is Getting warmer year by year.