# OUTLINE OF STEPS TAKEN TO PREPARE THE DATA TO BE VISUALISED:

1. For calculating the moving average and visualising the data trend, Excel was used. SQL query used for extracting data is:

   SELECT C.city,C.year, C.avg_temp as City_temp, G.year,G.avg_temp as global_temp
   FROM city_data as C
     JOIN global_data G ON C.year = G.year
     where city='Surat';

2. For calculating the moving average of local and global temperature, firstly using the SQL query I found the local and global temperature. Then extracted the csv file and opened it in Excel. Using average formula in Excel I found the moving average for local temp first and then for global temp. I used moving average for 3 temp range i.e. using formula = AVERAGE (C1:C3), here C is the column for temperature. And then for calculating for whole column just click and drag the formula down to the next cell.

3. Key consideration while visualising the trend was the type of graph to used. Line graph is used for visualising the trend as we want to see the change of temperature with time i.e. year here and then between the global and local temperature. Also, the type of data is also consider, whether some data is missing or not. As we want to see particular trend between two type of temp, we are using line chart.

LINE CHART:
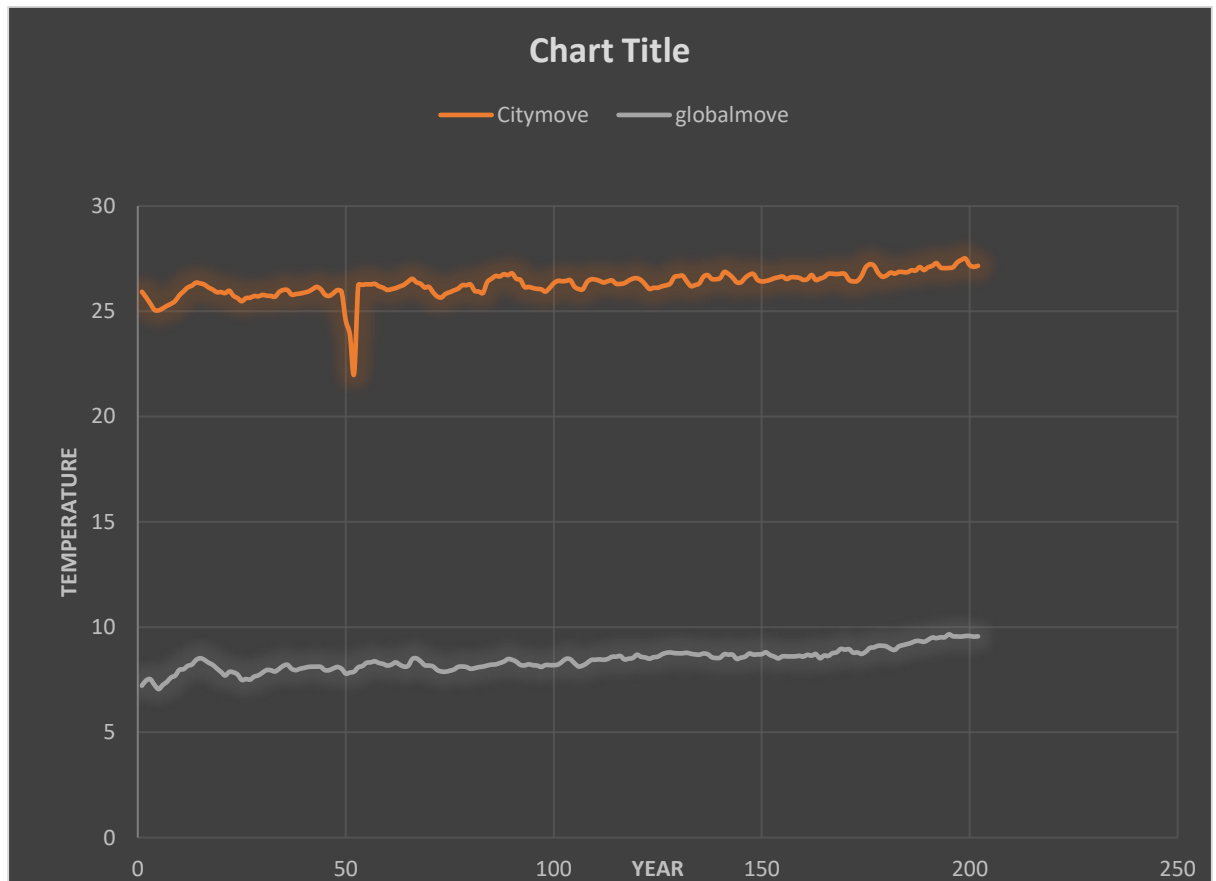
Here in the chart city trend is in orange colour and global trend is in grey colour. Here city used for visualising is Surat city.

OBSERVATIONS:
1. By observing the above chart, it is observed that city 'Surat' is hotter on average compared to global trend.
2. The temperature trend is consistent over the time period for both local and global temperature.
3. The temperature difference between the local and global temperature is consistent over the time.

4. The world average temperature is cooler than city temperature.
5. The overall trend is consistent over the complete time period.