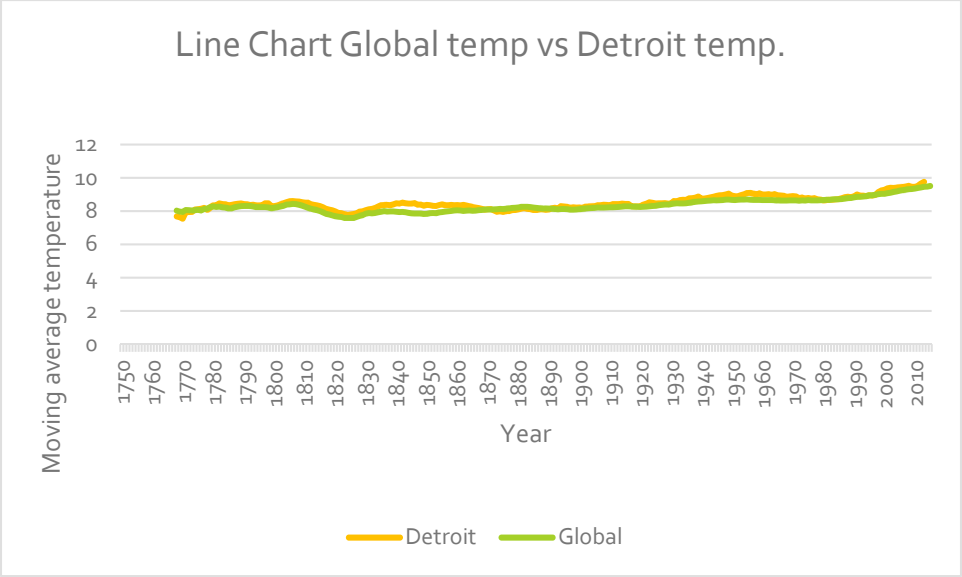
EXPLORE WEATHER TRENDS PROJECT REPORT

STEPS PERFORMED:

- Extracted data from database.
    1. SQL query to look for the city nearest to me:
       ```
       SELECT *
       FROM city_list
       WHERE country='USA';
       ```
    2. SQL query to extract average temperatures for Detroit:
       ```
       SELECT *
       FROM city_data
       WHERE city='Detroit';
       ```
    3. SQL query to extract average global temperatures:
       ```
       SELECT *
       FROM global_data;
       ```

- Exported the data to CSV and opened in Excel and calculated the moving averages for both my city and global temperatures as in the below path.
  Data tab<< Data Analysis<<Moving average<<type Input range, interval & output range.
  I chose 19 as the interval for moving average as there were 266 temperature values in total for each table and obtained 14 moving average values for each table which helps with uniform data distribution & plotting over the line chart.

LINE CHART WITH LOCAL & GLOBAL TEMPERATURE TRENDS:



OBSERVATIONS:

- For the years 1867 to 1933, there is hardly any difference in moving average temp. global vs Detroit. The lines coincide there.
- Temperatures have steadily increased at for both global & Detroit starting from the year 1980 until 2015.
- Beginning from the year 1835 until 1860, moving average temperatures of Detroit are higher than that of global temp.
- Overall, the trend seems to be the same for both the lines for most of the time duration mentioned here, but Detroit temps have gotten slightly higher for two time intervals.