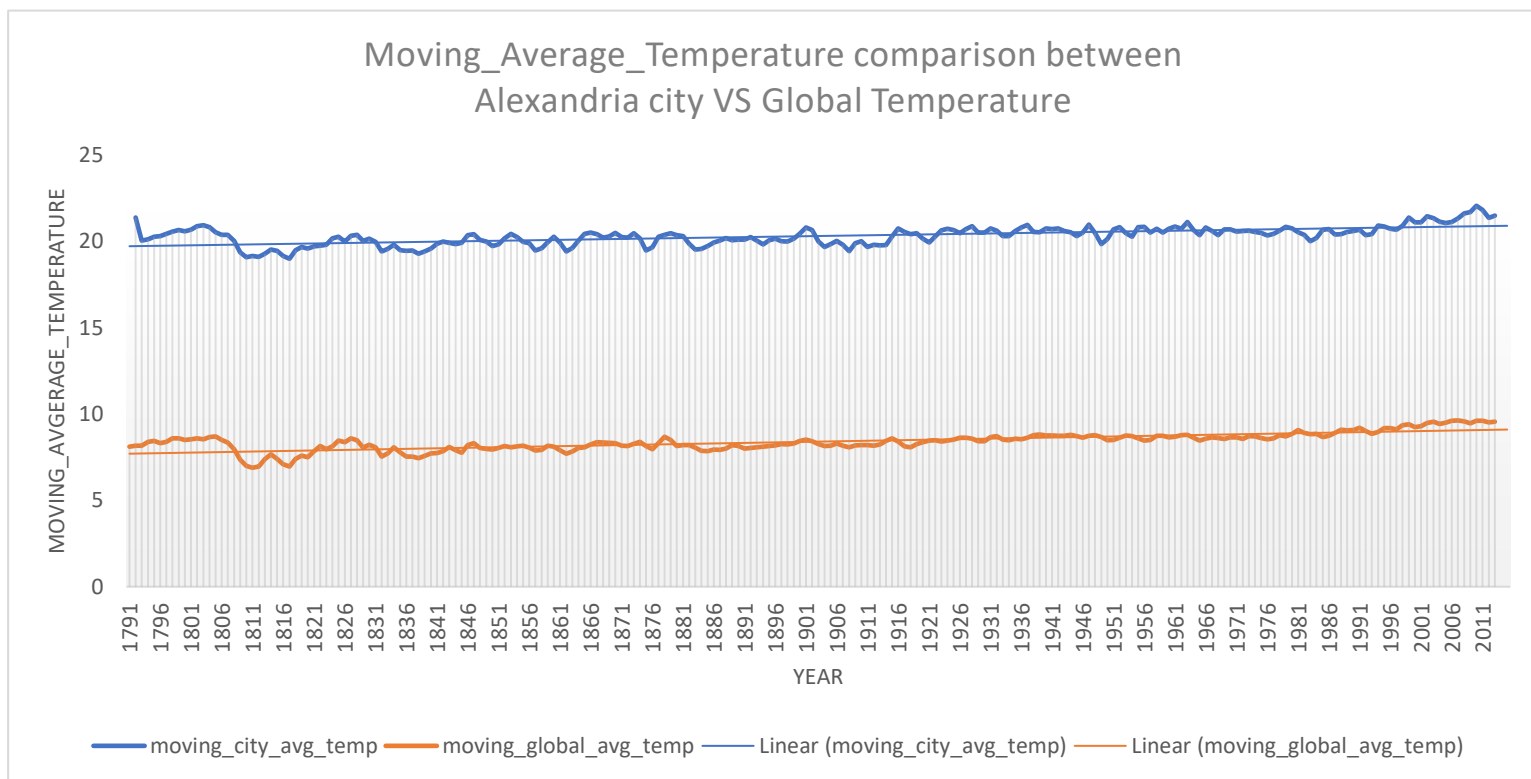


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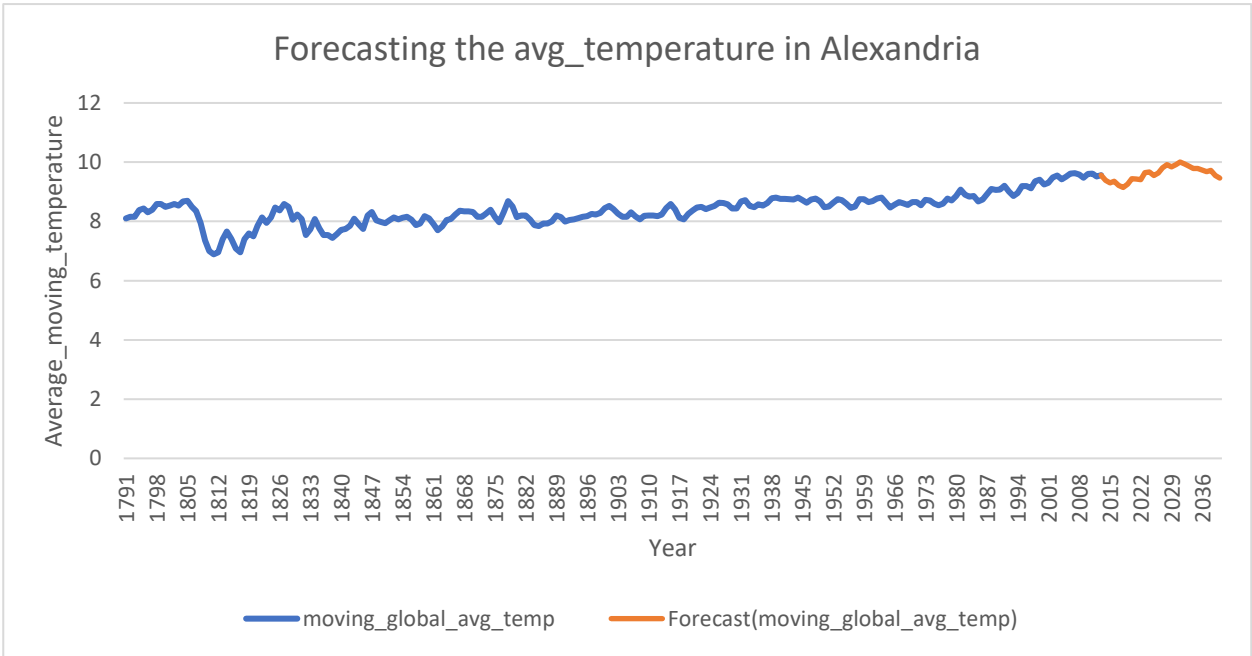
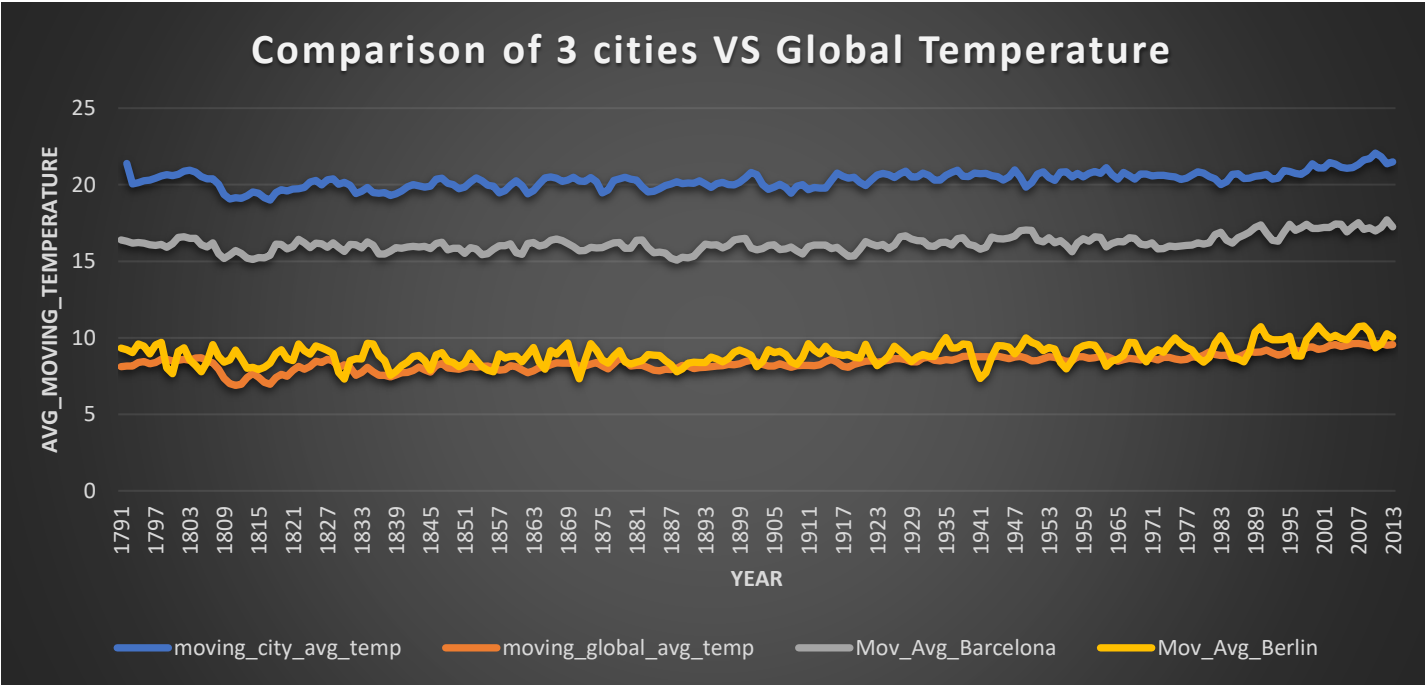
Outline:

Steps & Tools of project were as follow:

- 1) Look at my city in city_table by using SQL query, Then I chose "Alexandria, Egypt". after that I pull the data from the other 2 tables. **Tool Used: [SQL Query]**
- 2) I combined the 2 tables into one excel workbook, Then I "VLOOKUP" the average_global_temp from global_temp table to compare it to my city. **Tool Used: [Excel]**
- 3) I calculated the moving average as the average of 2 years [selected year and the last year from selected year], Then I scrolled down to get all years moving average for both my city temperature and global temperature. **Tool Used: [Excel]**
- 4) My key considerations represent in:
 - VLOOKUP the year data to compare between them.
 - Creating linear forecasting trend line to understand the trend over year and predict the future temperature for the upcoming years.
 - Chose less colors in chart to reach to the observations faster.
 - Look at the correlation coefficient of temperatures to understand the relation between them as correlation coefficient = 0.87 which is mean a strong positive relation between Alexandria city and global temperature. **Tool Used: [Excel]**



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Observations of similarities and/or differences:

- 1) Alexandria city is hotter on average compared to the global average.
- 2) Overall Difference trend is consistent overall years.
- 3) The changes are highly related as correlation coefficient has a strong positive relation between Alexandria and Global temperature, this mean When avg_global increases, Alexandria avg_temperature will increase also vice versa as to correlation coefficient = 0.87.
- 4) Looking into the overall trends, it shows that the global temperature is increasing through the years and the world getting hotter as it started from 8.105 degree reaching to 9.56 degree.
- 5) Forecasting the linear trends & the sheet trend shows that temperature will increase through the upcoming years according to linear forecast sheet.
- 6) The temperature has a trend also of changing to up and down from year to the next year but changes to huge.
- 7) Berlin has a close temperature to the global temperature against Barcelona which is colder than Alexandria but hotter than global temperature.

Query used to extract data:

To look for my city:

```
SELECT * FROM city_list WHERE city LIKE '%Alexandria%';
```

To extract my_city_data:

```
SELECT * FROM city_data WHERE city = 'Alexandria' AND country = 'Egypt';
```

To extract global data:

```
SELECT * FROM global_data;
```

To extract other cities data:

```
SELECT * FROM city_data WHERE city = 'Berlin' AND country = 'Germany';
```

```
SELECT * FROM city_data WHERE city = 'Barcelona' AND country = 'Spain';
```