

# Udacity Temperature Trends Project

- ➔ Steps taken to prepare the data to be visualized and extracting insights from it:
  - First, downloaded the data which I need from the data base using the needed sql queries:
  - For the global data I used this query:  

```
SELECT *  
FROM global_data;
```
  - For the city nearest from me in the data base I searched with that query:  

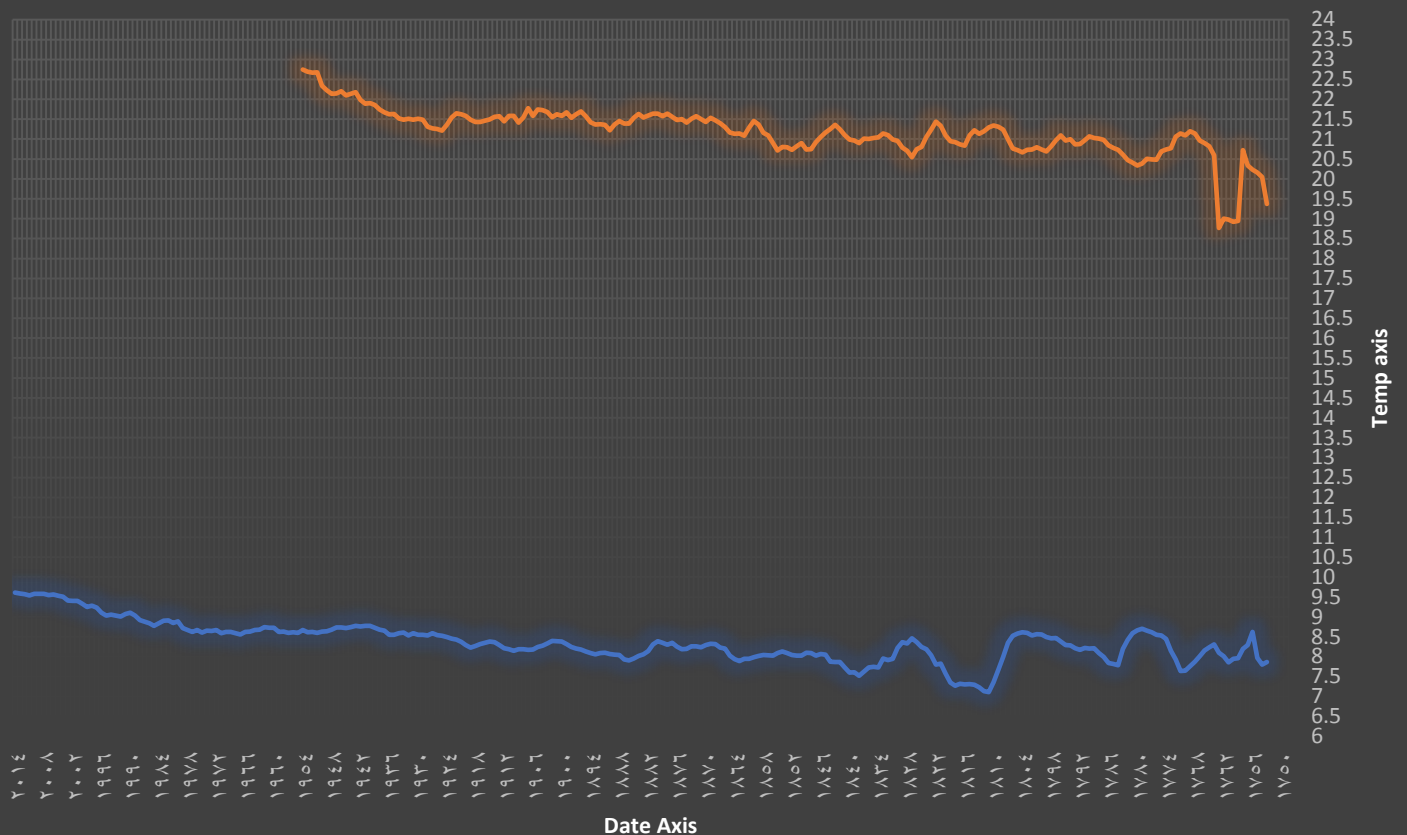
```
SELECT city  
FROM city_list  
WHERE country='Egypt';
```

" and I found two cities it's Cairo and Alexandria so I had chosen Cairo because it's the nearest from me "
  - For the data of the city about Cairo and I was only need the table column of the year and avg\_temp then i searched inside the city\_data table with that query:  

```
SELECT c.year,c.avg_temp  
FROM city_data c  
WHERE c.city='Cairo';
```
- ➔ After that downloaded the both files of data as csv and then tried to enhance their shape by separating every column alone then I copied the data of the my city file to the global data file to make them close to each other and to make it easy for me to work on both files together in the same type.
- ➔ Then I calculated the moving average for both the columns of the global data and my city data of the avg\_temp column in both for every five cells get the average of them in this excel equation:  
For ex. This is for B7 cell (=AVERAGE(B3:B7));
- ➔ So , I had two columns made about the moving average for my city and the global data.
- ➔ So, after that I selected them for making line chart on both of them in one chart as shown in the figure below:

## Comparison of global Temperature and my city Temperature

— M A of global data — M A of my city (cairo)



" Chart of Visualizing global and city data "

➔ Similarities and differences noticed about the global data and my city data:

- Similarities found between both that:
  - 1- Both are slowly increasing in the world average temperature.
  - 2- Earth is getting hotter in both cases in global and local scoop.
- Differences found between both that:
  - 1- In my city the usual case that it's slowly increasing in the total average than the previous year of its temperature.
  - 2- The usual case on the world case it's not showing that increase on the global scope maybe the previous year average is higher than this year and that mean there is some zones on the earth it helps in that disaster and not affected like the other zones with that case.
  - 3- There is some out of normal cases may be there is less reasons that effect on that alumni.

The overall trend is that the world getting hotter so we must save it.