SQL CODES ON THE WORKSPACE :

(1) To check if my city is in the list and fortunately I found it (Alexandria,Egypt)

```
SELECT *
FROM city_list
ORDER BY country
```

(2) To extract only my local data (for Alexandria,Egypt)

```
SELECT *
FROM city_data
WHERE city LIKE '%Alexandria%' AND country LIKE '%Egypt%'
ORDER BY year DESC
```

(3) To extract global data

```
SELECT *
FROM global_data
ORDER BY year DESC
```

Then it's time to working on data using Excel spreadsheet program:

First of all I calculated the moving average for the last 5 years towards the end of the data for both local and global data , as we did in the last quiz

=AVERAGE(B2:B6) "for global data"

=AVERAGE(D4:D8) "for local data"

Note: local data started from 2013 not 2015 like global data

Then I make a chart using both data for local and global average temperature using legends on the chart with the axis names.

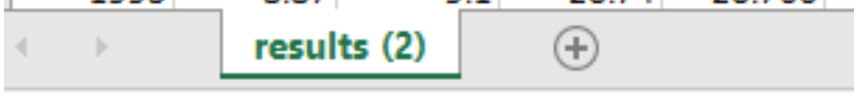
Screen Shots :

(1) Local data only

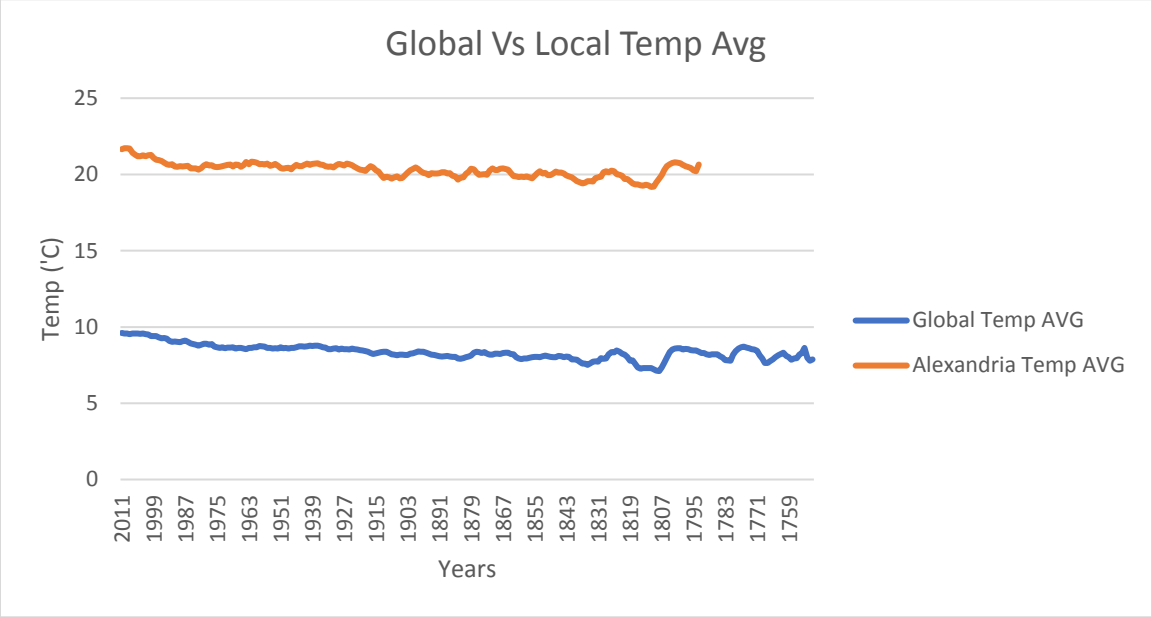
A	B	C	D
year	city	country	avg_temp
2013	Alexandri	Egypt	21.44
2012	Alexandri	Egypt	21.55
2011	Alexandri	Egypt	21.18
2010	Alexandri	Egypt	22.46
2009	Alexandri	Egypt	21.67
2008	Alexandri	Egypt	21.74
2007	Alexandri	Egypt	21.51
2006	Alexandri	Egypt	21.15
2005	Alexandri	Egypt	21.08
2004	Alexandri	Egypt	21.06
2003	Alexandri	Egypt	21.22
2002	Alexandri	Egypt	21.46
2001	Alexandri	Egypt	21.45
2000	Alexandri	Egypt	20.74
1999	Alexandri	Egypt	21.46
1998	Alexandri	Egypt	21.29
1997	Alexandri	Egypt	20.52
1996	Alexandri	Egypt	20.85
1995	Alexandri	Egypt	20.62
1994	Alexandri	Egypt	21.1

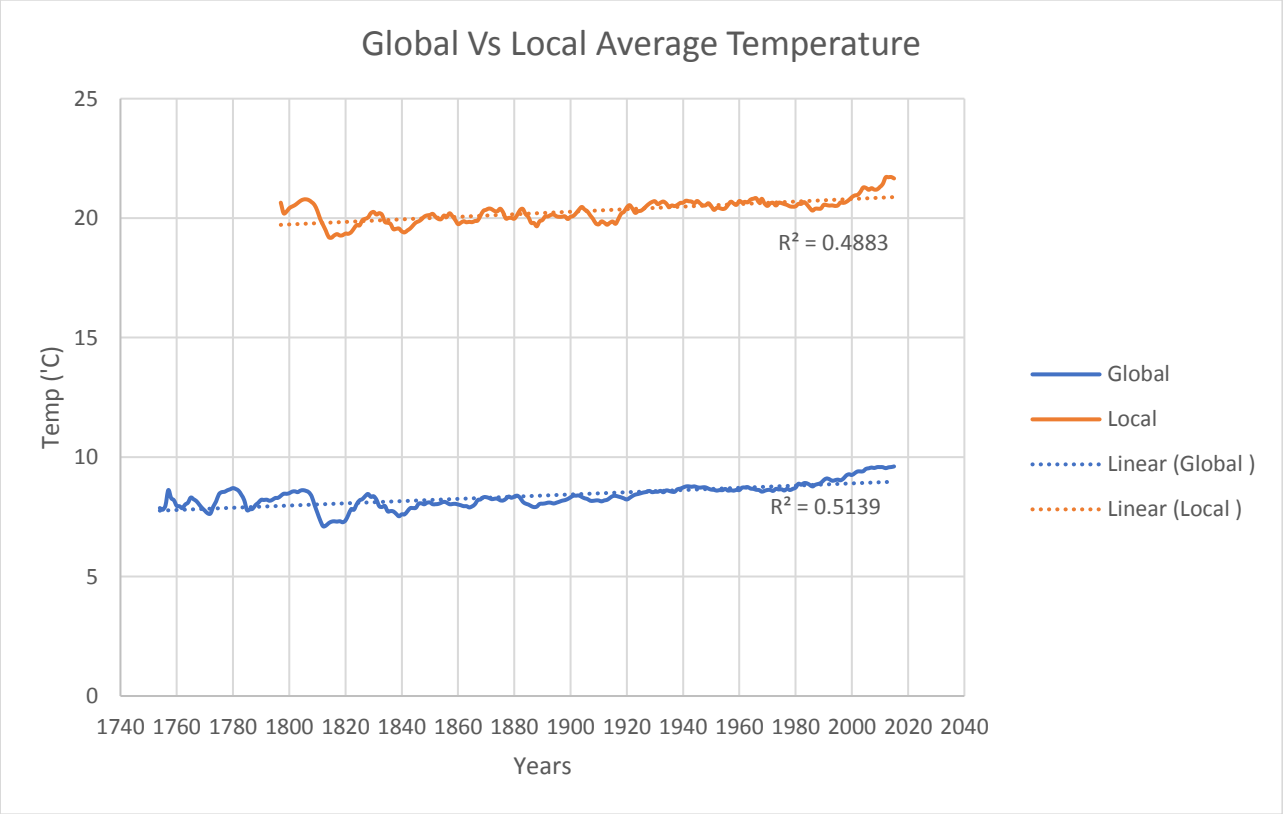
(2) ***<u>All the data together in one table:</u>***

year	avg_temp	avg_5_yea	alex_avg_	alex_5avg
2015	9.83			
2014	9.57			
2013	9.61		21.44	
2012	9.51		21.55	
2011	9.52	9.608	21.18	
2010	9.7	9.582	22.46	
2009	9.51	9.57	21.67	21.66
2008	9.43	9.534	21.74	21.72
2007	9.73	9.578	21.51	21.712
2006	9.53	9.58	21.15	21.706
2005	9.7	9.58	21.08	21.43
2004	9.32	9.542	21.06	21.308
2003	9.53	9.562	21.22	21.204
2002	9.57	9.53	21.46	21.194
2001	9.41	9.506	21.45	21.254
2000	9.2	9.406	20.74	21.186
1999	9.29	9.4	21.46	21.266
1998	9.52	9.398	21.29	21.28
1997	9.2	9.324	20.52	21.092
1996	9.04	9.25	20.85	20.972
1995	9.35	9.28	20.62	20.948
1994	9.04	9.23	21.1	20.876
1993	8.87	9.1	20.74	20.766



(3) The Chart Comparison between Global & Local (Alexandria,Egypt) data





Observations:

1- My city (Alexandria,Egypt) is hotter (warmer) than the global average temperature

2- the difference is approximately consistent between them for about 12 ‘C

3- both the local and global average temperature increases and decreases with each other , which indicates that they are massively correlated with each other

4- the overall trend in the last 5 years indicates a continuous rise in the average temperature , which gives an indication of the global warming Alert !!

5-In the second chart it shows us that Both trends have positive correlation coefficient (0.69 for local trend) and (0.71 for global trend).