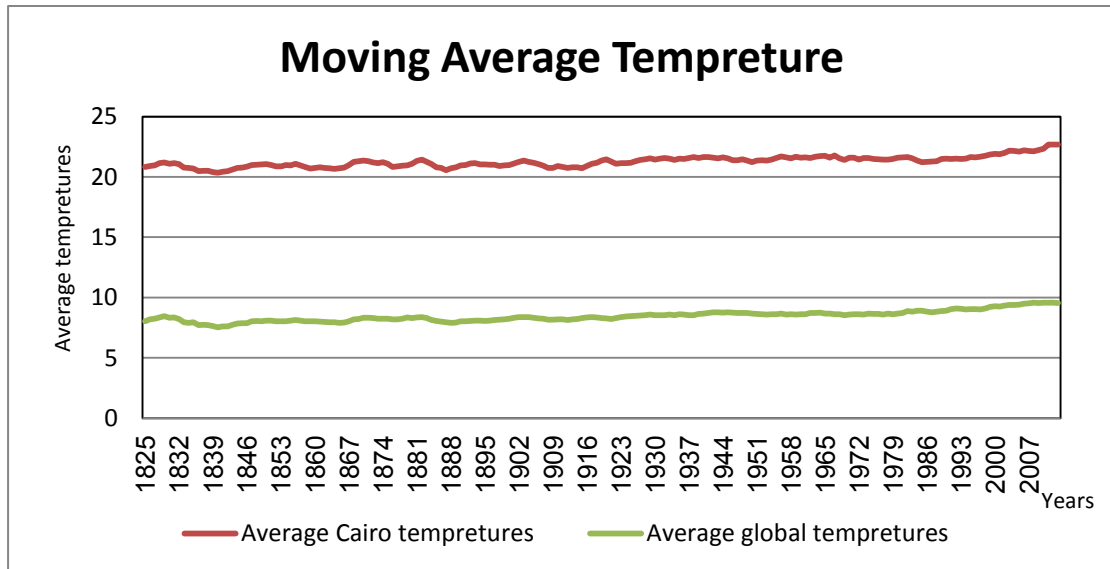# Exploring Weather Trends – Project



## Kindly find the below steps:

1- Extract data from SQL for City 'Cairo' to get its temperatures and Global Temperatures in the same year by the below Query

   Select

   CT.Year,

   CT.city,

   CT.country,

   CT.avg_temp as avg_temp_Cairo,

   GD.avg_temp as avg_temp_Global

   from city_data CT

   left join global_data GD

   on CT.year=GD.year

   where CT.city='Cairo'

2- Copy data in Excel sheet.

3- Get moving average of each 5 years of Cairo and Global temperatures as the below screen shot.

| | F7 | | $f_x$ | =AVERAGE(D2:D6) | | | |
|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G |
| | year | city | country | avg_temp_cairo | avg_temp_global | moving_avg_temp_cairo | moving_avg_temp_global |
| | 1808 | Cairo | Egypt | 17.11 | 7.63 | | |
| | 1809 | Cairo | Egypt | 19.87 | 7.08 | | |
| | 1810 | Cairo | Egypt | 19.93 | 6.92 | | |
| | 1811 | Cairo | Egypt | 20 | 6.86 | | |
| | 1812 | Cairo | Egypt | 19.93 | 7.05 | | |
| | 1813 | Cairo | Egypt | 20.51 | 7.74 | 19.368 | 7.108 |
| | 1814 | Cairo | Egypt | 20.43 | 7.59 | 20.048 | 7.13 |
| | 1815 | Cairo | Egypt | 20.3 | 7.24 | 20.16 | 7.232 |
| | 1816 | Cairo | Egypt | 20.51 | 6.94 | 20.234 | 7.296 |
| | 1817 | Cairo | Egypt | 21.88 | 6.98 | 20.336 | 7.312 |
| | 1818 | Cairo | Egypt | 11.6 | 7.83 | 20.726 | 7.298 |
| | 1819 | Cairo | Egypt | 20.31 | 7.37 | 18.944 | 7.316 |
| | 1820 | Cairo | Egypt | 20.58 | 7.62 | 18.92 | 7.272 |
| | 1821 | Cairo | Egypt | 20.63 | 8.09 | 18.976 | 7.348 |

4- My key consideration to draw the chart is years and Cairo/global average temperatures.

5- Draw line chart show differences between years and moving average Cairo/Global temperatures.

**My Observation on the temperatures chart at the below:**

1- The average temperatures of my city "cairo" is hotter than average Global temperatures.

2- Cairo average temperatures increases like Global average tempretures increases by the time at last years.

3- The world getting hotter & my city also.

4- There is suddenly increase from last 35 years.

**Regards,**

**Noha Moubarak Ahmed**