Project #1

Explore Weather Trends

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Step 1:

Extracting the city level data using a SQL query.

```
Input                                    HISTORY ∨       MENU ∨

SCHEMA              ↺      1    SELECT * from city_data
                          2    WHERE city= 'Riyadh'
city_data           ∨     3
city_list           ∨
global_data         ∨

                          Success!                    EVALUATE

Output   171 results                          ⬇ Download CSV

  year          city           country           avg_temp
```

Step 2:

Extracting the global data using a SQL query.

```
Input                                    HISTORY ∨       MENU ∨

SCHEMA              ↺      1    SELECT * from global_data
                          2
city_data           ∨
city_list           ∨
global_data         ∨

                          Success!                    EVALUATE

Output   266 results                          ⬇ Download CSV
```

Step 3:

I was used Excel to open the CSV, then I extract the information from global_data database

Step 4 :

Select and copy avg_temp colome from the global_data , then paste in Riyad database.

(The stared year in Riyadh was in 1843, so the copy data from the avg_temp was it in the same year).
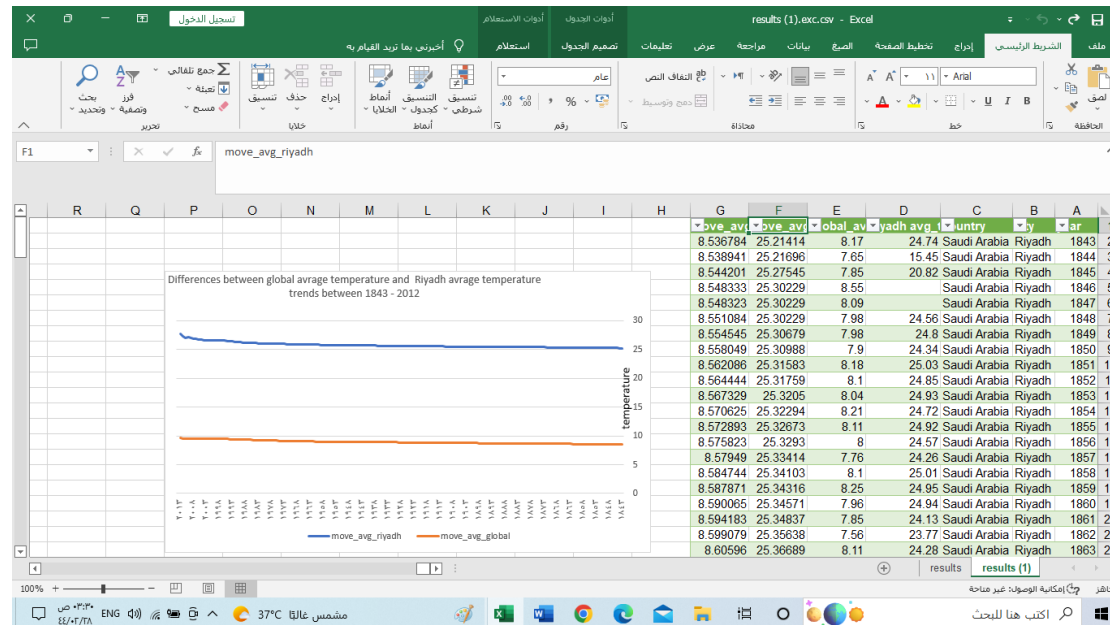

Step 5: Moving Averages

Add a new field move_avg_riyadh to calculate the average of Riyadh city

Add a new field move_avg_global to calculate the average of global temperatures

Appling the function AVERAGE(D2:D172) to calculate the moving average of Riyadh city

Appling the function =AVERAGE(E2:E172) to calculate the moving average of global
temperatures

Step 6:

create a line chart that describe average between Riyadh temperatures and the global
temperatures.
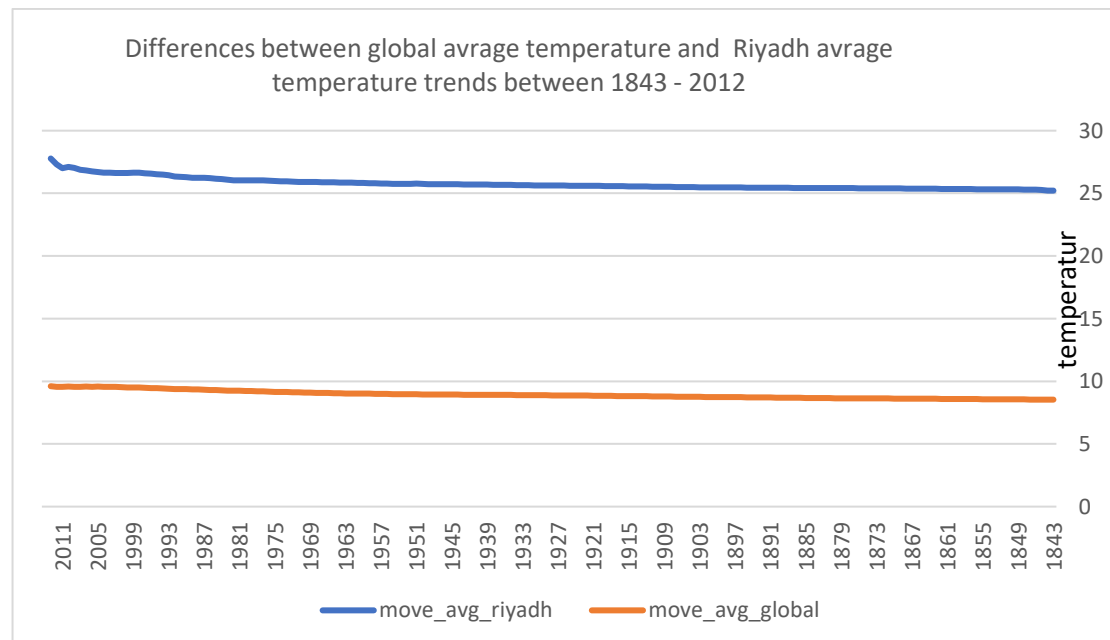
Step 7: Observations

According to the line chart:

1- The Riyadh city is hotter on average than global average and through time, the difference has not been constant.

2- The change in Riyadh city temperatures over time was between 24 to 27.68 trad compare with the global average was between 7 to 9.61 trad.

3- The last 10 years the change in Riyadh temperatures is increased to high.

4- The overall trend of the world is increasing in temperatures. Additionally, the general pattern of temperature change appears to be changing.

Reference:

https://www.youtube.com/watch?v=4gaymR1vrEE&t=19s

https://www.youtube.com/watch?v=mC1ARrtkObc&t=29s