Global Temperature Project DANAD-Udacity

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steps taken to prepare the data to be visualized in the chart:

I have used SQL queries to extract the data from the database

I used this SQL command to know whether my city is listed in the database or not which are from (city_list) table, and I find my city which is (Riyadh city).

```
SELECT country, city
FROM city_list
WHERE country = 'Saudi Arabi';
```

I used this SQL command to extract the data from (global_data) table:

```
SELECT year,avg_temp
FROM global_data;
```

I used this SQL command to extract the data from (city_data) table:

```
SELECT year,avg_temp
FROM city_data
WHERE city = 'Riyadh';
```

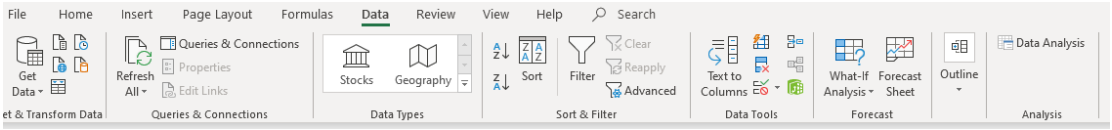
I have Used Excel spreadsheet to view my data that I extract from the database and to make the line chart.

How I have calculated the moving average:

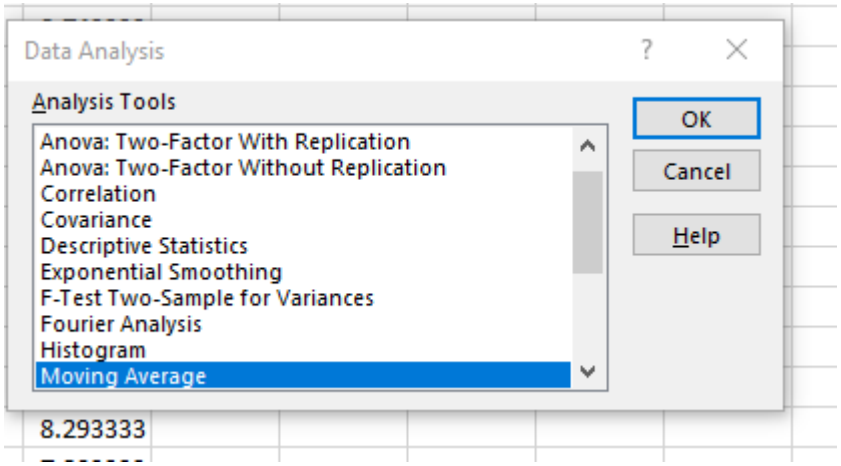
I have calculated the moving average using (Data Analysis) tool which are pre-defined in Excel spreadsheet. The tool allows you calculate any column you want immediately

This is pictures for further explanation about the tool and how it calculates the moving average

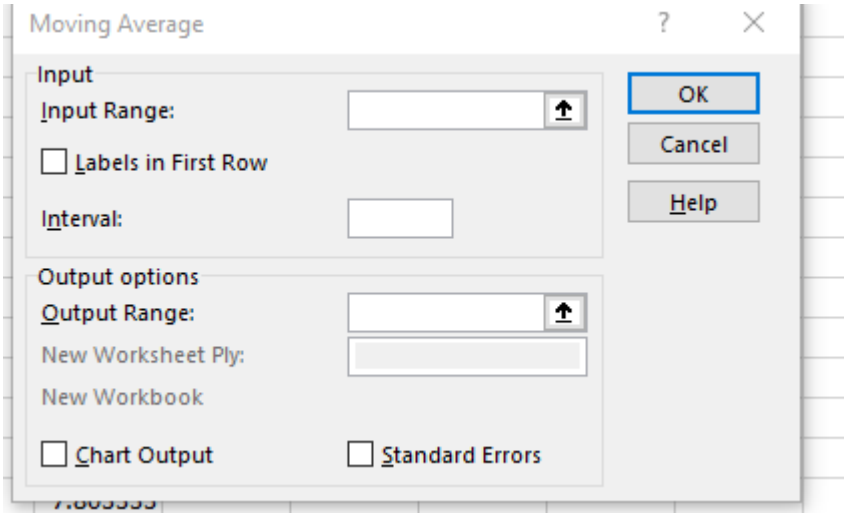
1-At data option in the menu bar there is option at the right side called (Data Analysis).



2- There is menu will appear with too many analysis tools I have selected (Moving Average) tool then I clicked ok



3-Moving Average menu have appear, then I choose the input range and the output range then I clicked ok, and the moving average directly calculated for the (global_data) column based on the (average temperature) and my city (Riyadh) column based on the (average temperature).



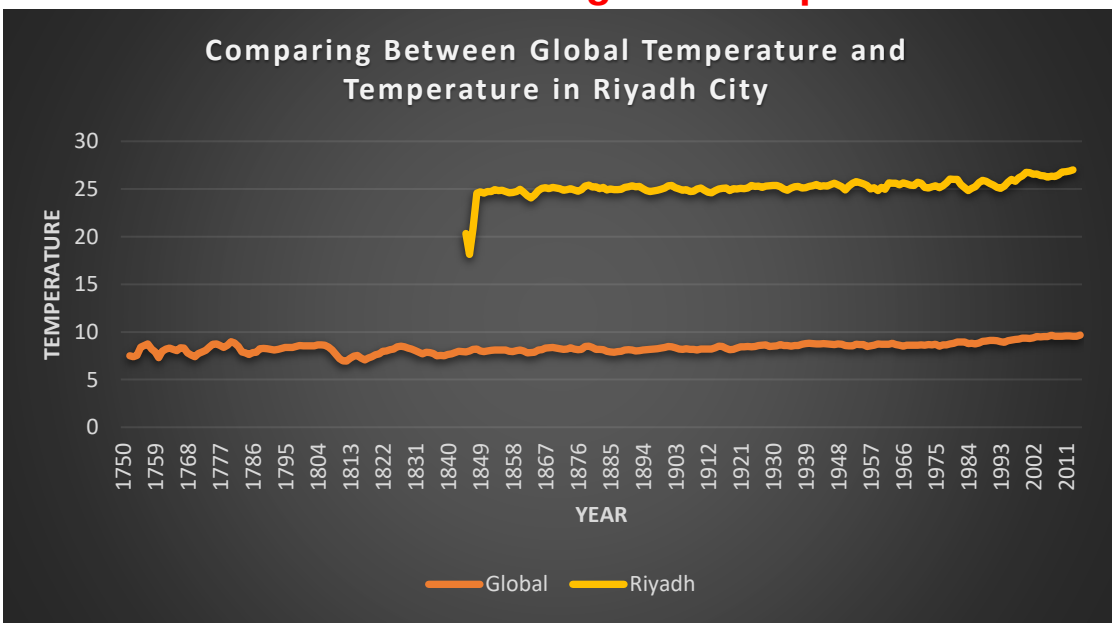
4- Is at shown the moving average has been calculated in the output range that I choose.

Global Move Average
#N/A
#N/A
7.493333
7.383333
7.546667
8.406667
8.56
8.743333
8.203333
7.916667
7.306667
7.983333
8.19
8.293333
8.17
8.05
8.353333
8.293333

key considerations for deciding how to visualize the trends:

I have considered to take the moving average for my city (Riyadh) and the global temperature moving average based on the years, I have make sure to show the title and put label in the x-axis and y-axis, and using good colouring to make the graph more attractive.

Line chart with local and global temperature trends



My Observations:

1-My city (Riyadh) is way hotter than the average temperature is it shown in the graph

2-My city have become more hotter during the years, also the global temperature has become hotter.

3- The temperature is changing slowly over the years.

4-The temperature become more hotter in years, especially last twenty years.

5-The increasing of the temperature in my city (Riyadh) is larger than the global temperature increasing.