Summery:

This project compares between Riyadh city temperature and global temperature. It analysis the given data and computing the temperature moving average for Riyadh and the globe. Used tools have been written and the followed answer steps are shown. In addition, the line chart is available , so reader ,can observes the temperature global trend and compare it to the local city. Observations are documented based on the data and line chart .

Using tools : Excel ,SQL

 Answering steps:

1. Extracting the data
   Two SQL queries are used to extract data from data base

   - The first query:
   This query is extracting Riyadh data and it is showed below :

   select * from city_data
    where city = 'Riyadh'

     - The second query:
          This query is extracting the average global temperatures by year

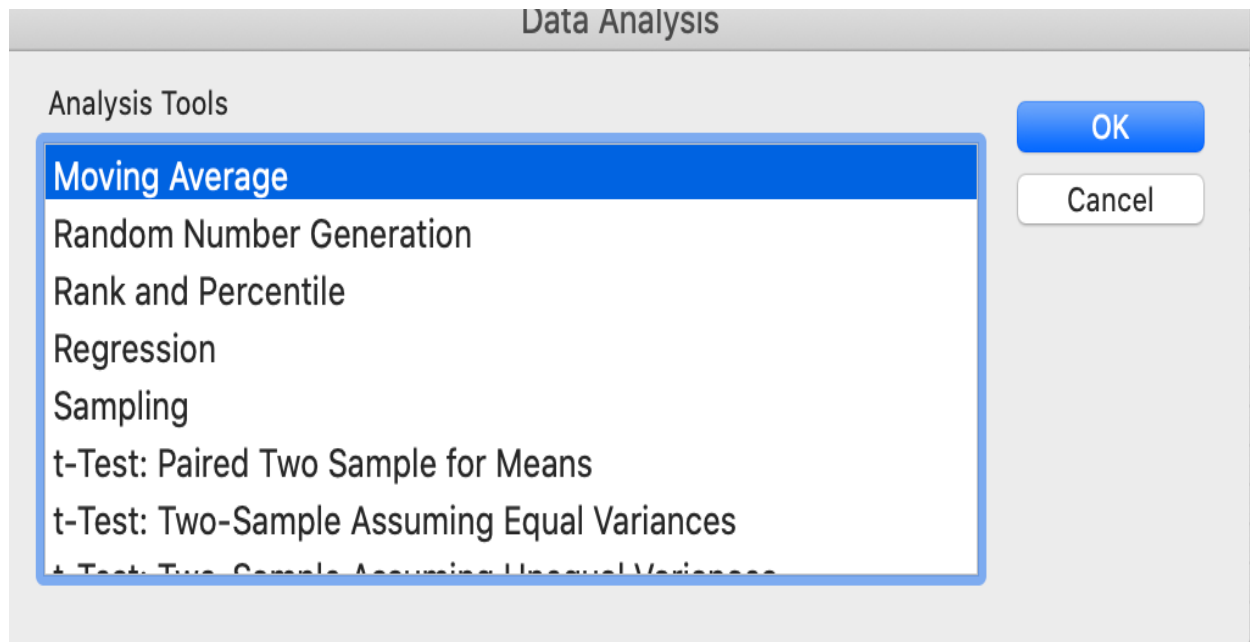   select *
    from global_data

   2) Download the resulted files and open it by Microsoft excel , making the required data in one excel sheet, so i can start the calculation .
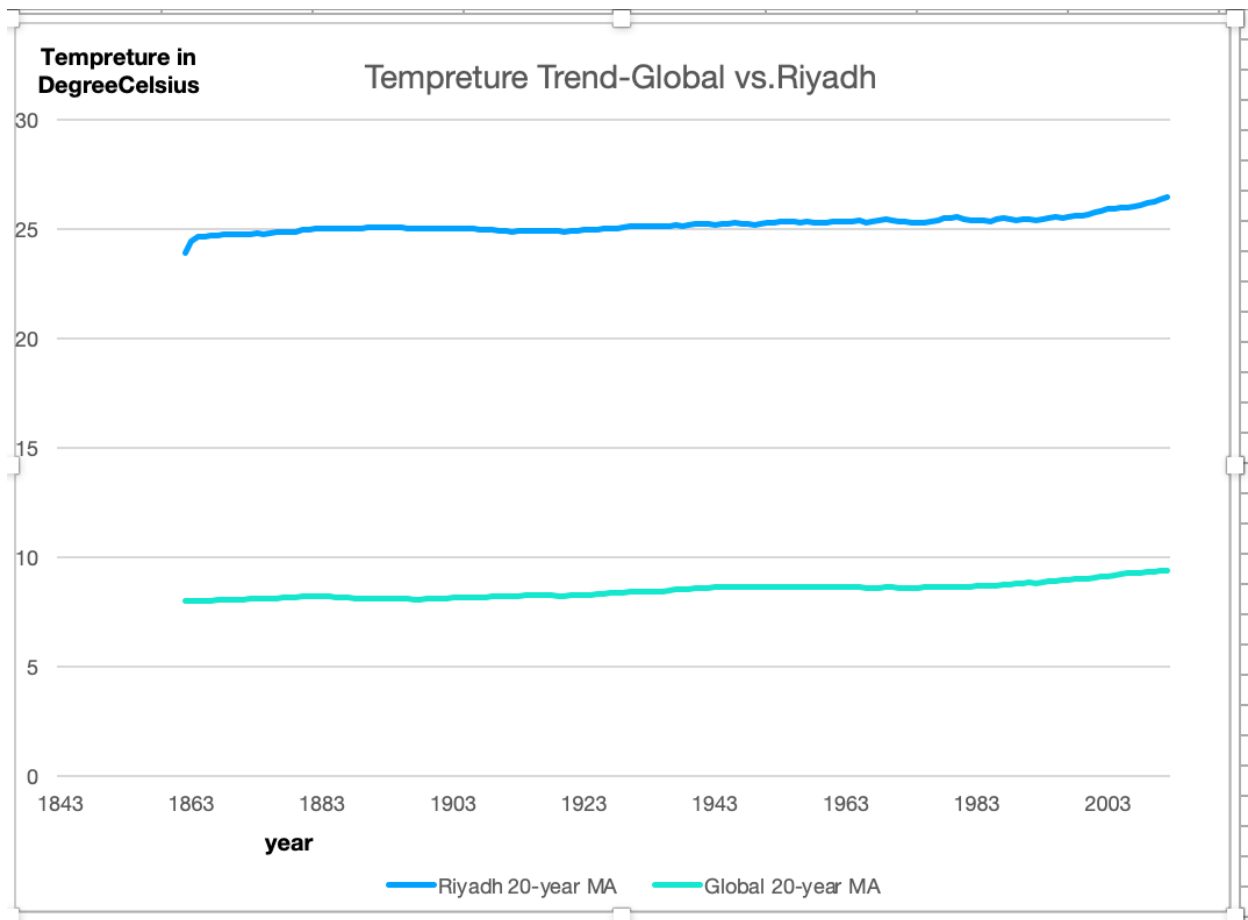
   3) computing moving average

In order to calculate the moving average temperature for Riyadha and the globe , I will use data analysis tool In Excel.

   - The chosen interval value is : 20 .

- The period between 1843 and 2013 will be studied as the tempreture data available in this mention period for both Riyadh city and the global .

Data Analysis

Analysis Tools

| Moving Average |
| Random Number Generation |
| Rank and Percentile |
| Regression |
| Sampling |
| t-Test: Paired Two Sample for Means |
| t-Test: Two-Sample Assuming Equal Variances |

OK

Cancel

year	city	avg_temp	Global avg_temp	Riyadh Mov Avg	Global Mov AVG
1843	Riyadh	24.74	8.17	#N/A	#N/A
1844	Riyadh	15.45	7.65	#N/A	#N/A
1845	Riyadh	20.82	7.85	#N/A	#N/A
1846	Riyadh		8.55	#N/A	#N/A
1847	Riyadh		8.09	#N/A	#N/A
1848	Riyadh	24.56	7.98	#N/A	#N/A
1849	Riyadh	24.8	7.98	#N/A	#N/A
1850	Riyadh	24.34	7.9	#N/A	#N/A
1851	Riyadh	25.03	8.18	#N/A	#N/A
1852	Riyadh	24.85	8.1	#N/A	#N/A
1853	Riyadh	24.93	8.04	#N/A	#N/A
1854	Riyadh	24.72	8.21	#N/A	#N/A
1855	Riyadh	24.92	8.11	#N/A	#N/A
1856	Riyadh	24.57	8	#N/A	#N/A
1857	Riyadh	24.26	7.76	#N/A	#N/A
1858	Riyadh	25.01	8.1	#N/A	#N/A
1859	Riyadh	24.95	8.25	#N/A	#N/A
1860	Riyadh	24.94	7.96	#N/A	#N/A
1861	Riyadh	24.13	7.85	#N/A	#N/A
1862	Riyadh	23.77	7.56	23.90722222	8.0115

Tempreture in DegreeCelsius

Tempreture Trend-Global vs.Riyadh

year

Riyadh 20-year MA ——— Global 20-year MA

Observation

1. The graph shows similarity between Riyadh which is my local city and global temperature as it shows there is increase in Riyadh temperature and the globe .
2. Moreover, it shows some differences. For example, the temperature in Riyadh is higher than global, while Riyadh moving average temperature is 24.43 degree in 1862, the global moving average temperature is 8.02 for the same year.
3. While the min moving average for Riyadh temperature is 23.907 degree, it is 8.011 in the globe.
4. Over the decades, the increase of temperature is continuing in Riyadh city and the globe , the raise is about 3 degrees in Riyadh, while it 1.5 degree in the globe, so the world becoming more hot.