



أكاديمية مسك
MISK ACADEMY



UDACITY

Frist project: Explore Weather Trends

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My GitHub: <https://github.com/Ahmmed44/Exploring-Weather-Trends>

1- First extract data from the database

- Download the table `global_data` :

The screenshot shows the 'Accessing Data With SQL' interface in a web browser. The input field contains the SQL query: `SELECT * FROM global_data`. The output shows 266 results with columns 'year' and 'avg_temp'. The first two rows are:

year	avg_temp
1750	8.72
1751	7.98

. The interface also includes a 'Download CSV' button and a sidebar with project navigation.

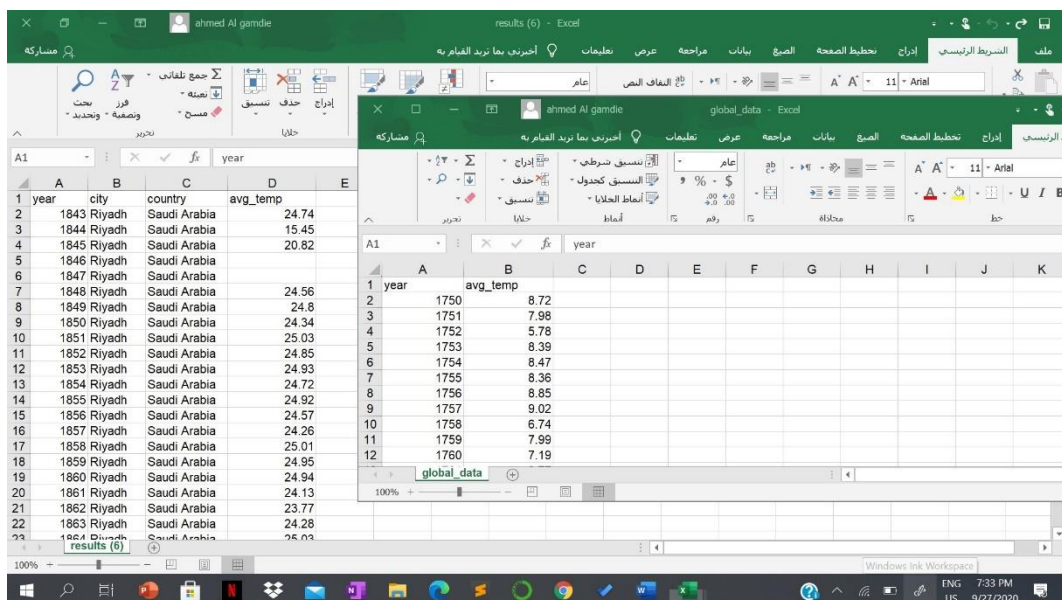
- then download table city data and specific the city Riyadh :

The screenshot shows the 'Accessing Data With SQL' interface in a web browser. The input field contains the SQL query: `SELECT * FROM city_data where city='Riyadh'`. The output shows 171 results with columns 'year', 'city', 'country', and 'avg_temp'. The first three rows are:

year	city	country	avg_temp
1843	Riyadh	Saudi Arabia	24.74
1844	Riyadh	Saudi Arabia	15.45
1845	Riyadh	Saudi Arabia	20.82

. The interface also includes a 'Download CSV' button and a sidebar with project navigation.

- then open the two files in excel:

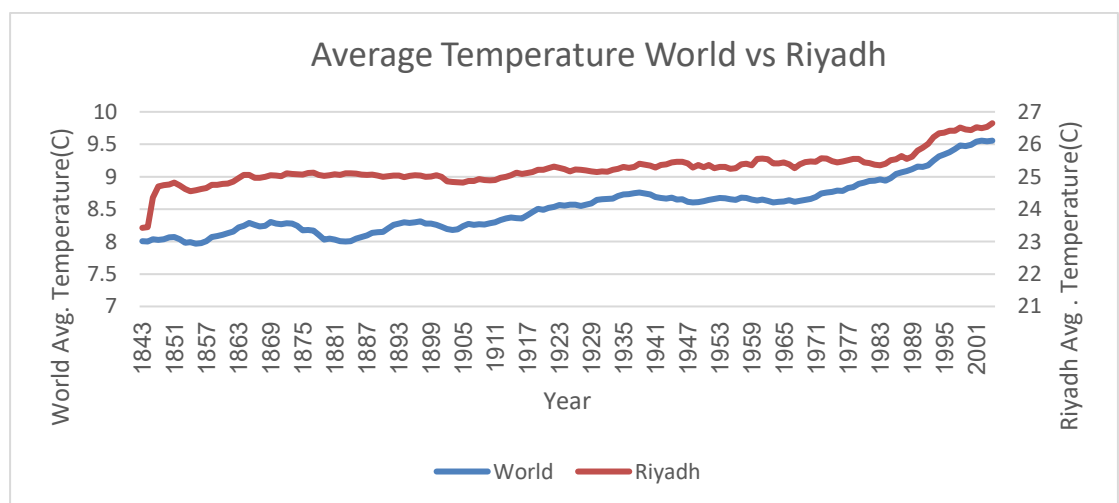


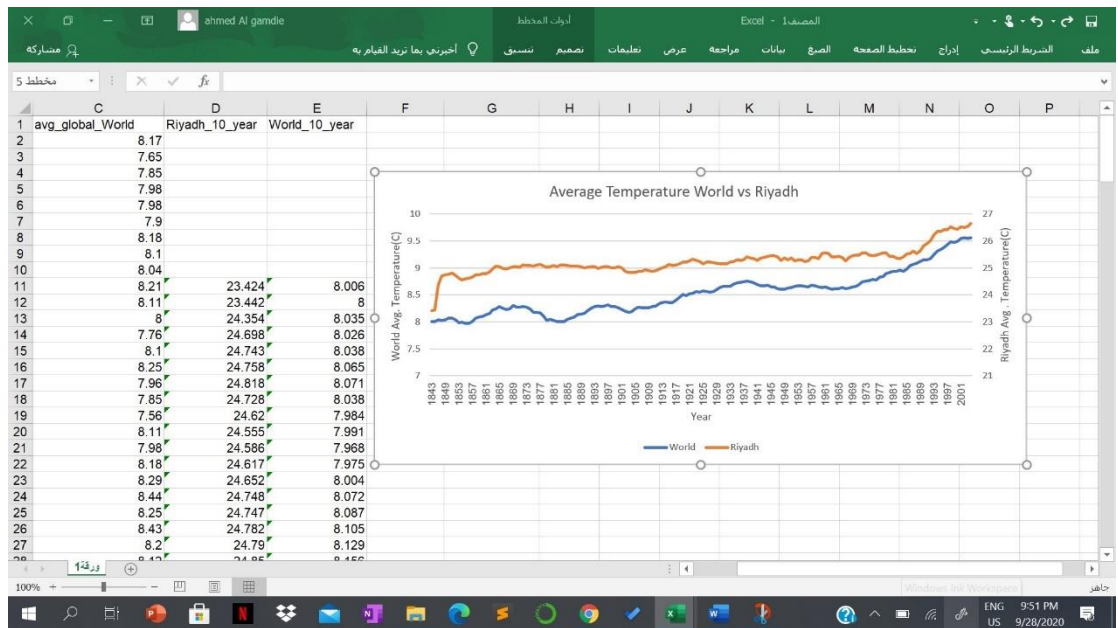
2- here I do manipulate data

- the table **ave_global_World** choice starts years 1843 end 2013 because need match with years table **avg_local_Riyadh** .
- and I have missing features for the table avg_local_Riyadh for the years 1846 and 1847 then I delete.
- and delete the column country because not useful for this project.
- the calculate moving average for 10 years

year	avg_local_Riyadh	avg_global_World	Riyadh_10_year	World_10_year
1843	24.74	8.17		
1844	15.45	7.65		
1845	20.82	7.85		
1848	24.56	7.98		
1849	24.8	7.98		
1850	24.34	7.9		
1851	25.03	8.18		
1852	24.85	8.1		
1853	24.93	8.04		
1854	24.72	8.21	23.424	8.006
1855	24.92	8.11	23.442	8
1856	24.57	8	24.354	8.035
1857	24.26	7.76	24.698	8.026
1858	25.01	8.1	24.743	8.038
1859	24.95	8.25	24.758	8.065
1860	24.94	7.96	24.818	8.071
1861	24.13	7.85	24.728	8.038
1862	23.77	7.56	24.62	7.984
1863	24.28	8.11	24.555	7.991
1864	25.03	7.98	24.586	7.968
1865	25.23	8.18	24.617	7.975
1866	24.92	8.29	24.652	8.004
1867	25.22	8.44	24.748	8.072
1868	25	8.25	24.747	8.087
1869	25.3	8.43	24.782	8.105
1870	25.02	8.2	24.79	8.129

3- Data visualization





4- Observations

- when we see the visualization **city Riyadh** for the year 1844 down 23C and then uplift in the 1849 year
- when we see the visualization **world** this is very cooler
- **Riyadh** had not consistent over time
- The **world** had not consistent over time
- **the world and my city Riyadh** look like getting hotter for the Coming years last