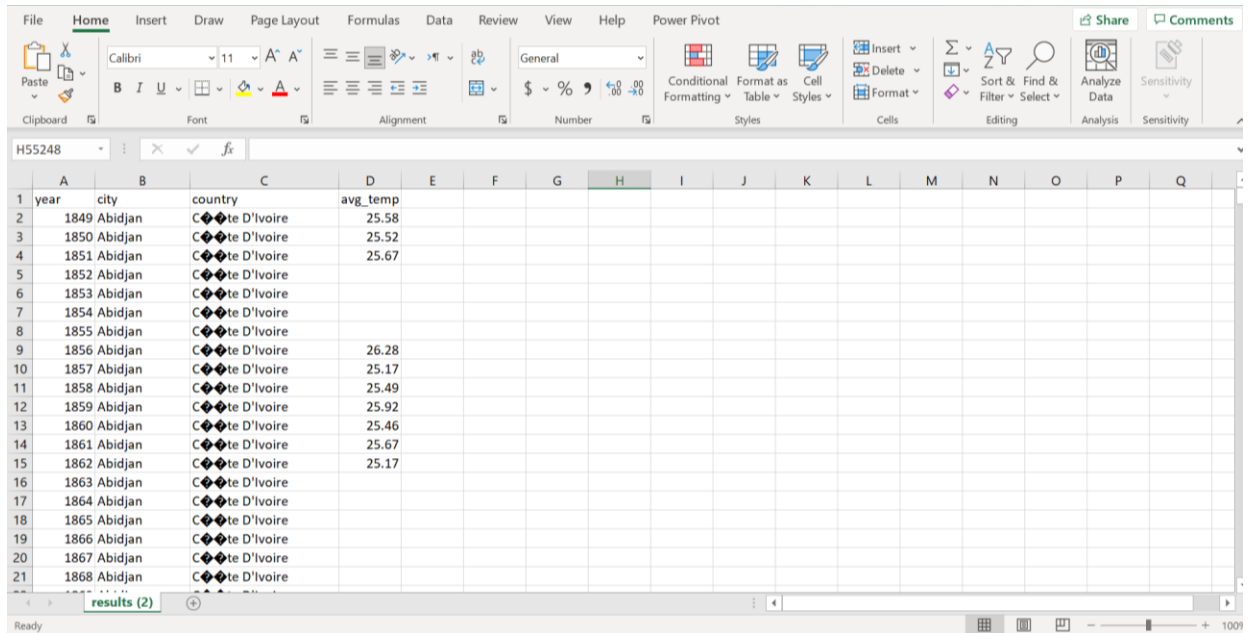


## Project: Exploring Weather Trends

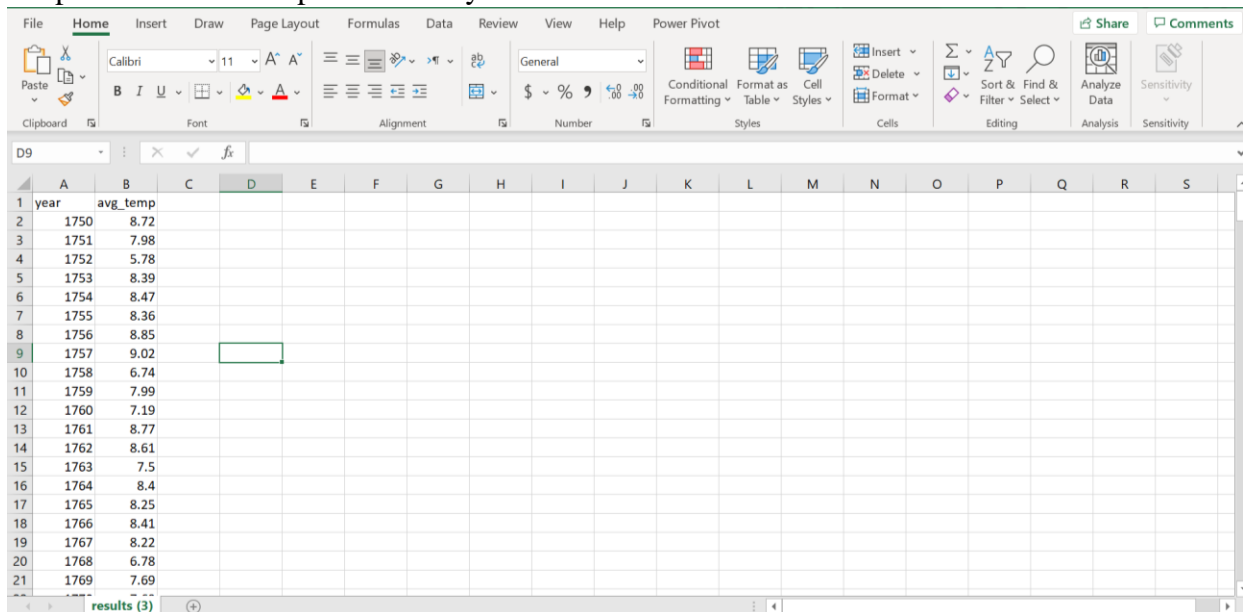
### Steps:

- 1- I use SQL query to extract the data from city\_data table (Select \* from city\_data)
- 2- I export to CSV then open the file by Excel.



year	city	country	avg_temp
1849	Abidjan	Côte d'Ivoire	25.58
1850	Abidjan	Côte d'Ivoire	25.52
1851	Abidjan	Côte d'Ivoire	25.67
1852	Abidjan	Côte d'Ivoire	
1853	Abidjan	Côte d'Ivoire	
1854	Abidjan	Côte d'Ivoire	
1855	Abidjan	Côte d'Ivoire	
1856	Abidjan	Côte d'Ivoire	26.28
1857	Abidjan	Côte d'Ivoire	25.17
1858	Abidjan	Côte d'Ivoire	25.49
1859	Abidjan	Côte d'Ivoire	25.92
1860	Abidjan	Côte d'Ivoire	25.46
1861	Abidjan	Côte d'Ivoire	25.67
1862	Abidjan	Côte d'Ivoire	25.17
1863	Abidjan	Côte d'Ivoire	
1864	Abidjan	Côte d'Ivoire	
1865	Abidjan	Côte d'Ivoire	
1866	Abidjan	Côte d'Ivoire	
1867	Abidjan	Côte d'Ivoire	
1868	Abidjan	Côte d'Ivoire	

- 3- I use SQL query to extract the data from global\_data table (Select \* from global\_data)
- 4- I export to CSV then open the file by Excel.



year	avg_temp
1750	8.72
1751	7.98
1752	5.78
1753	8.39
1754	8.47
1755	8.36
1756	8.85
1757	9.02
1758	6.74
1759	7.99
1760	7.19
1761	8.77
1762	8.61
1763	7.5
1764	8.4
1765	8.25
1766	8.41
1767	8.22
1768	6.78
1769	7.69

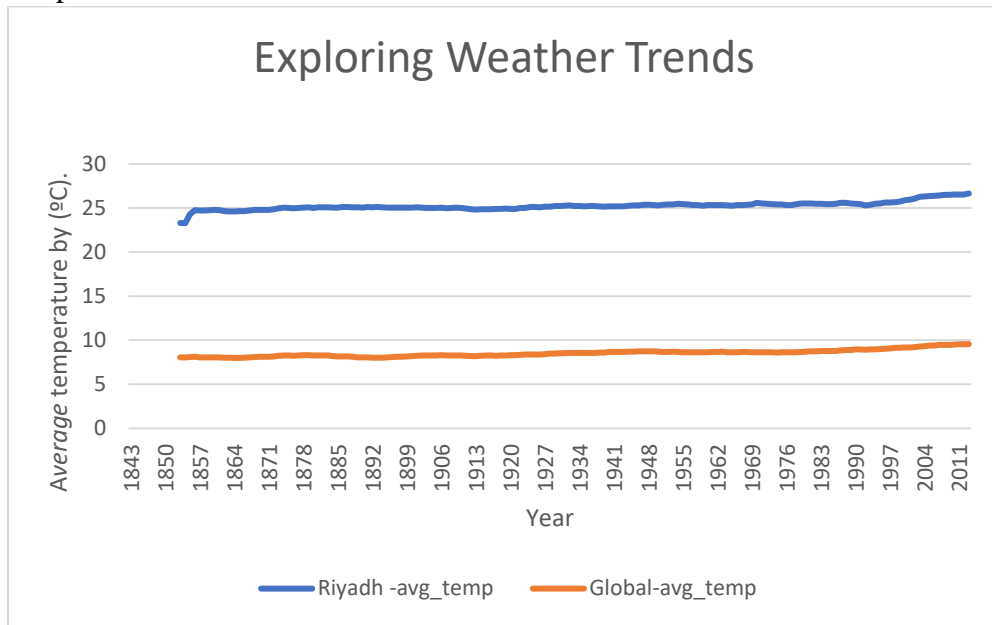
- 5- I live in Riyadh, so I copy all temperatures from city\_data table which are related with Riyadh. The data start in 1843 until 2013.
- 6- I copy all temperatures from global\_data table which start in 1843 until 2013 to be in the same period in a new Excel.

year	R-avg-temp	year	G-avg-temp
1843	24.74	1843	8.17
1844	15.45	1844	7.65
1845	20.82	1845	7.85
1846		1846	8.55
1847		1847	8.09
1848	24.56	1848	7.98
1849	24.8	1849	7.98
1850	24.34	1850	7.9
1851	25.03	1851	8.18
1852	24.85	1852	8.1
1853	24.93	1853	8.04
1854	24.72	1854	8.21
1855	24.92	1855	8.11
1856	24.57	1856	8
1857	24.26	1857	7.76
1858	25.01	1858	8.1
1859	24.95	1859	8.25
1860	24.94	1860	7.96
1861	24.13	1861	7.85
1862	23.77	1862	7.56

- 7- I calculate moving average for every 10 years for Riyadh and Global.

year	R-avg-temp	Riyadh-avg-temp	year	G-avg-temp	Global-avg-temp
1843	24.74		1843	8.17	
1844	15.45		1844	7.65	
1845	20.82		1845	7.85	
1846			1846	8.55	
1847			1847	8.09	
1848	24.56		1848	7.98	
1849	24.8		1849	7.98	
1850	24.34		1850	7.9	
1851	25.03		1851	8.18	
1852	24.85		1852	8.1	
1853	24.93	23.28	1853	8.04	8.04
1854	24.72	23.28	1854	8.21	8.05
1855	24.92	24.33	1855	8.11	8.09
1856	24.57	24.75	1856	8	8.10
1857	24.26	24.70	1857	7.76	8.03
1858	25.01	24.73	1858	8.1	8.03
1859	24.95	24.76	1859	8.25	8.06
1860	24.94	24.77	1860	7.96	8.06
1861	24.13	24.76	1861	7.85	8.05
1862	23.77	24.64	1862	7.56	7.99

- 8- I Create a line chart that compares your Riyadh temperatures with the global temperatures.



9-My observation:

- Riyadh city hotter on average compared to the global average.
- Riyadh temperature increase over time. for example, in 1863, the temperature was 24.59 however in 2013 it was 26.26.
- Global temperature increases over time. for example, in 1863, the temperature was 8 however in 2013 it was 9.27.
- Riyadh temperature increase more than global temperature.
- The trend looks to the world getting hotter.