The tools that I use it:

- SQL:

  Write an SQL query to extract the files

- Python :

  Use the (pandas) library to open and combine csv files

```
In [92]: import pandas as pd
         import seaborn as sns

In [93]: dataset = pd.read_csv("city_data.csv")

In [94]: dataset.head()
```

Out[94]:

	year	city	country	avg_temp
0	1843	Riyadh	Saudi Arabia	24.74
1	1844	Riyadh	Saudi Arabia	15.45
2	1845	Riyadh	Saudi Arabia	20.82
3	1846	Riyadh	Saudi Arabia	NaN
4	1847	Riyadh	Saudi Arabia	NaN

```
In [95]: dataset1 = pd.read_csv("global_data.csv")

In [96]: dataset1.head()
```

Out[96]:

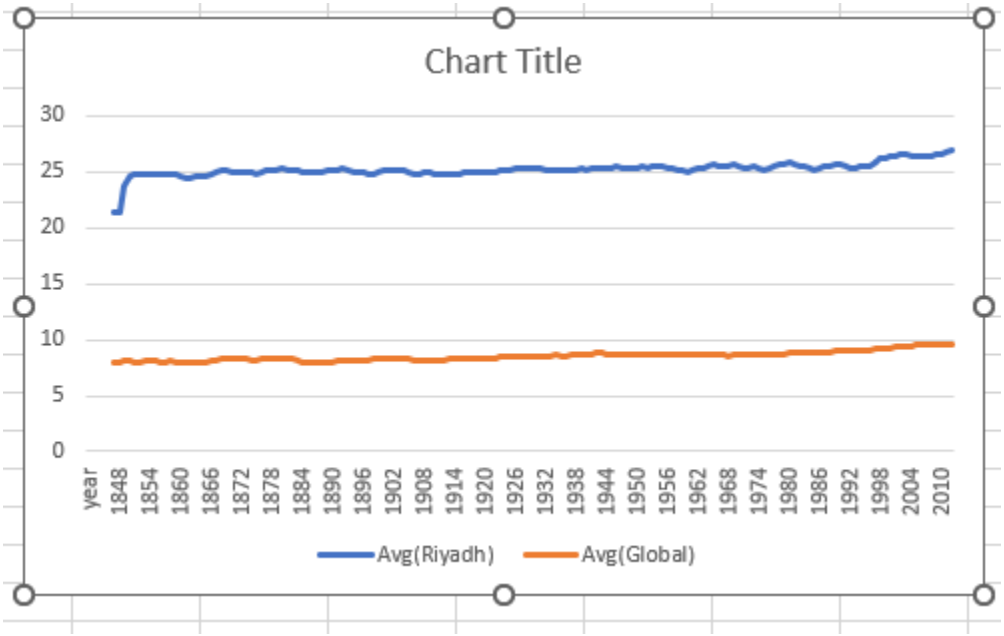
	year	avg_temp
0	1750	8.72
1	1751	7.98
2	1752	5.78
3	1753	8.39
4	1754	8.47

```
In [97]: merge_data = pd.merge(left =dataset, right= dataset1,on='year')

In [ ]:

In [101]: merge_data.to_csv('merge_data.csv' , index =False)

In [109]: saved_faile=pd.read_csv('merge_data.csv')

In [ ]:

In [ ]:

In [107]: merge_data.to_csv('downloads/data2/merge_data.csv' , index = False)

In [ ]:
```

- **Excel** :

  Using VBA excel to calculate the average for every 7 years and compare between (local, Global)

The observations :



- In the local there is a clear rise after 1848
- And then the change is very little, until the last three years, there is a rise.
- In the global the changes is very little between the years there is a small rise
- We note that there is a big difference between the local and the global, as the average temperature in the local is much higher than the global