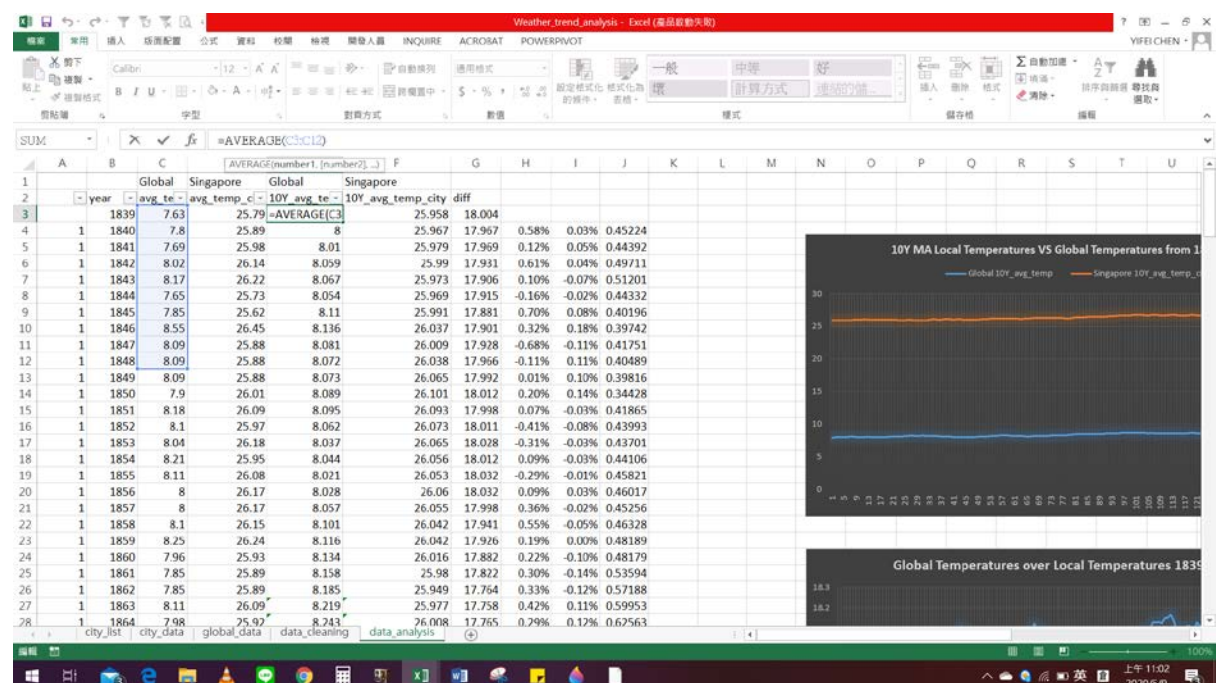


Weather Trend Analysis

Here are steps and methodologies.

1. To extract data from web site by using SQL script.
select * from city_list
select * from city_data
select * from global_data
2. Choose the Singapore city where I resident and start to do analysis
3. Perform basic data cleaning process to remove missing data before 1839 year and fill up with missing data with precedent available numbers.
4. I choose to use 10 year moving average to create new dataset for this case.

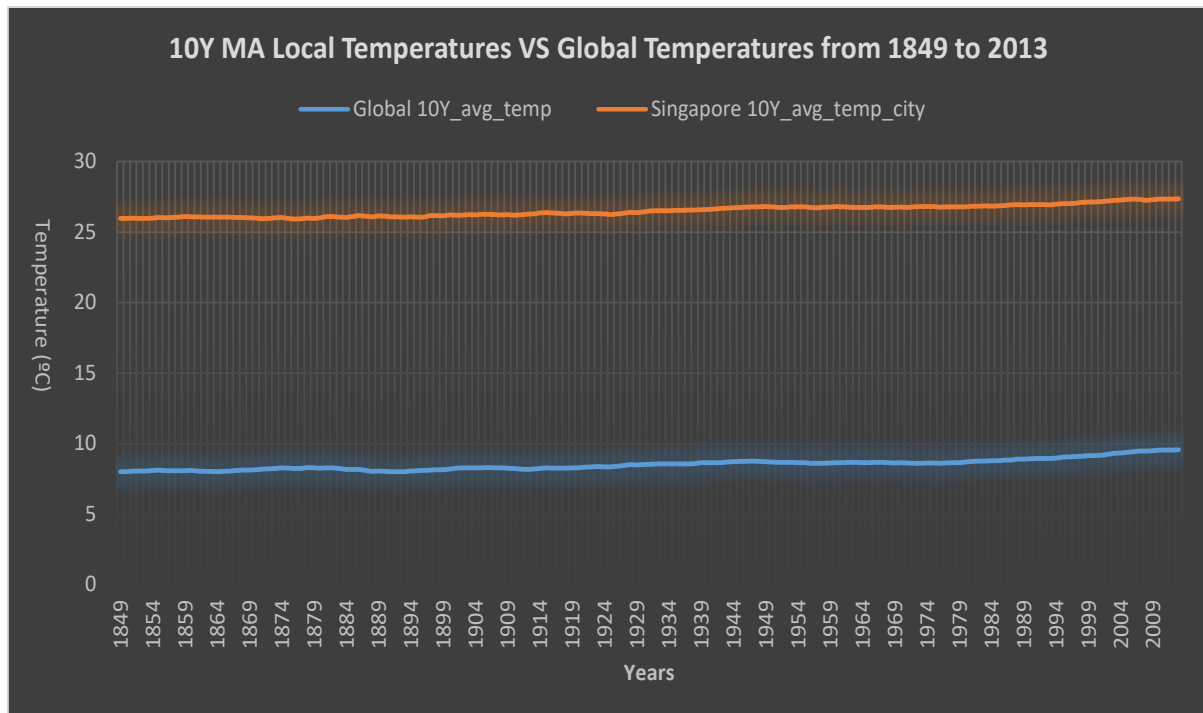
For example, I took cells from C3 to C12 for 10Y average by using excel formula "AVERAGE ()" and subsequently, I took another range of cells C4 to C13 for next 10Y average. As a result, the data set of 10 year moving average is created by repeating the steps and applied to both global and local city.



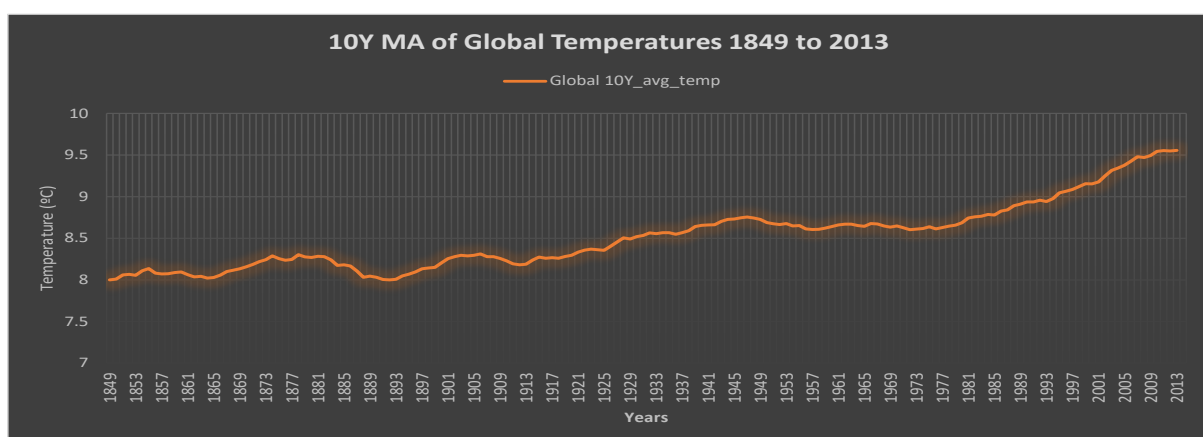
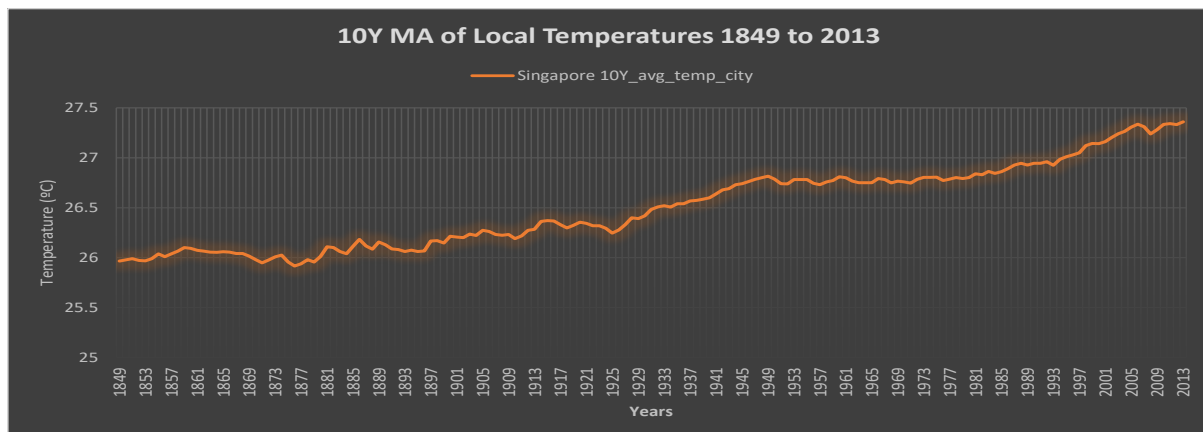
5. I decide to use line chart of both local and global temperatures because it can simply compare trend of temperature of both over time.

Observation:

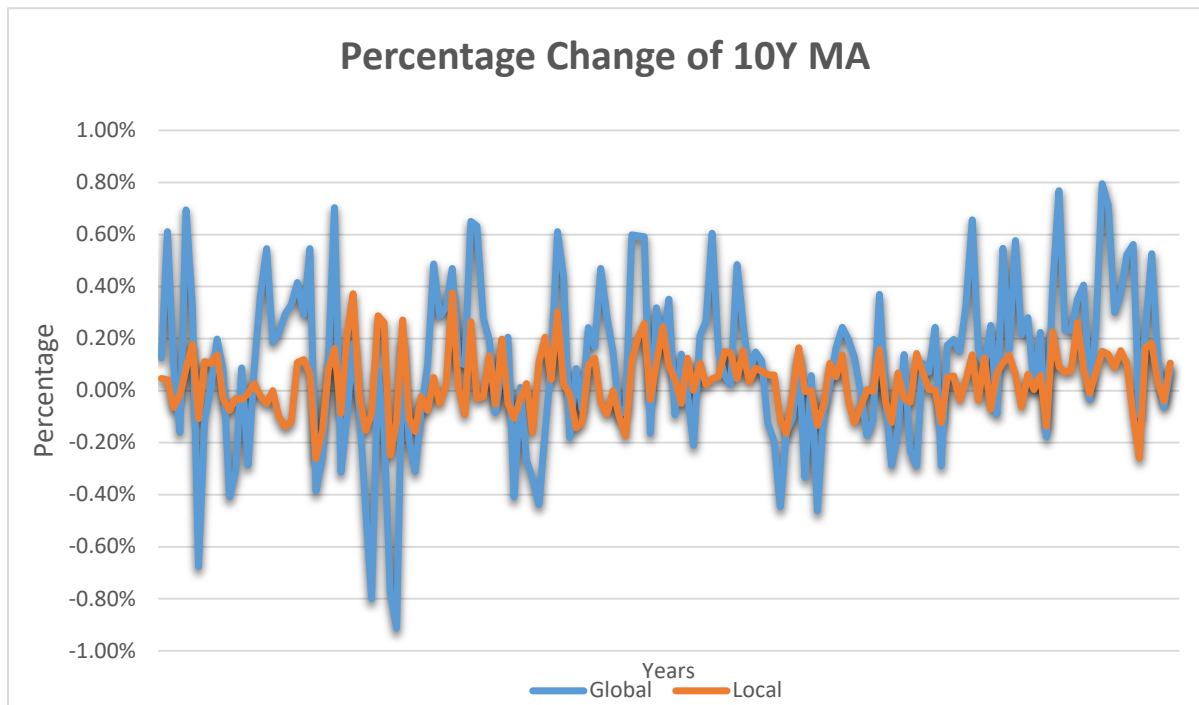
1. The Global temperature is consistently higher than my local city over past 164 years.



2. Both global and local temperatures move upward over the past 164 years



3. The percentage change of temperature of Global is more volatile than local city along the sample period.



4. When I perform correlation of percentage change between global and local city, I observe the correlation is from 30~60% that shows certain volatility.

