

The above is the line chart that I obtained from the data provided. In drawing the line chart, I followed these steps:

Step1: Extract Data from Udacity using the workspace provided and download the results as CSV. The exact queries that I wrote are the following:

SELECT \* FROM city\_data where city = 'Guangzhou' SELECT \* FROM global data

Step2: Open the CSV files using EXCEL and merge the data into one of the files.

Step3: On the seventh row, in the temperature data columns, type '=AVERAGE(', and use cursor to drag down from the first row to the seventh row and hit enter. The average temperature should be calculated and displayed for the first seven years on both the city level and the global level.

Step4: Use cursor to drag down to apply the formula until the end of table; the moving averages should all be calculated and displayed by now.

Step5: Draw the line chart by following documentation. In drawing it, I mainly considered one aspect, that is, the number and timeliness of datasets. I chose data from 1900 to 2013, since there are just enough of data (113 years, Hah?) and the data is timely (in other words, meaningful) enough to observe trends.

## Observations:

- # 1: The temperatures on both the city and the global level tended to be stable, until recently, the effects of global warming (maybe) kicks in and the temperatures start to rise up.
- # 2: temperature on the city level (Guangzhou) tend to be higher than temperature on the global level, since Guangzhou is near the equator
- # 3: temperature on the city level has a peak value at around 1945, right when the Sino-Japanese War ended.