☐ SQL

```
-- Finding the city near in the city_list
  SELECT * FROM city_list
  WHERE (country LIKE 'Korea') OR (city LIKE 'Seoul')

-- Extracting Seoul temp data and global's
  SELECT city_data.year, city_data.city, city_data.country , city_data.avg_temp AS city_avg_temp , global_data.avg_temp AS global_avg_temp FROM city_data
  JOIN global_data ON city_data.year = global_data.year
  WHERE city_data.city = 'Seoul'
  ORDER BY city_data.year
```

Now, I got the dataset I analyze.

;

☐ Moving Average

I used 9year-MA for smoothing the line chart and check the trend.

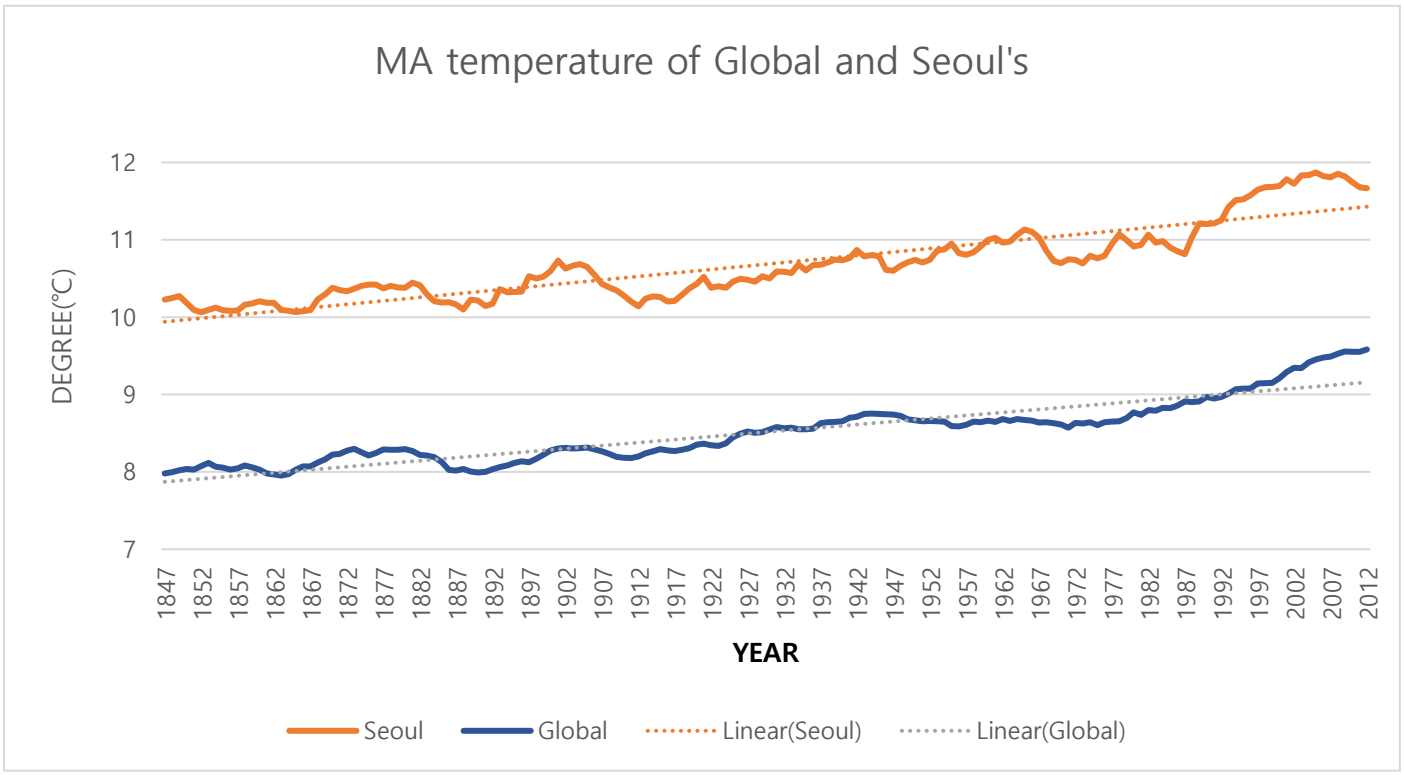
My tool was Excel and the calculation was :

= AVERAGE(D2:D10)

※ Head of the dataset with MA calculation

year	city	country	city_avg_temp	city_MA	global_avg_temp	global_MA
1839	Seoul	South Korea	9.47		7.63	
1840	Seoul	South Korea	10.21		7.8	
1841	Seoul	South Korea	9.44		7.69	
1842	Seoul	South Korea	10.13		8.02	
1843	Seoul	South Korea	10.33		8.17	
1844	Seoul	South Korea	10.15		7.65	
1845	Seoul	South Korea	10.25		7.85	
1846	Seoul	South Korea	10.57		8.55	
1847	Seoul	South Korea	10.59	10.12666667	8.09	7.938888889
1848	Seoul	South Korea	10.36	10.22555556	7.98	7.977777778
1849	Seoul	South Korea	10.39	10.24555556	7.98	7.997777778
1850	Seoul	South Korea	9.69	10.27333333	7.9	8.021111111
1851	Seoul	South Korea	9.33	10.18444444	8.18	8.038888889
1852	Seoul	South Korea	9.52	10.09444444	8.1	8.031111111
1853	Seoul	South Korea	9.86	10.06222222	8.04	8.074444444
1854	Seoul	South Korea	10.53	10.09333333	8.21	8.114444444

☐ Line Chart of the Data



☐ **Observations**

-Comparing Seoul And Global AVG` TEMP

- Seoul always has been hotter than global average since 1847.

- **the changes in Seoul temperature and global**

	Seoul	Global
Avg.Rate	0.99	1.07
Trend	Increase	Increase
Start (1847)	10.68	8.51
End (2013)	11.67	9.58
Max	11.87	9.58
Min	10.06	7.94

- Global temperature increase rapidly ,compared to Seoul's.
- Both has been increased , not decreased over years.

Overall Trend

- Given the Seoul's and global data , World seem to be getting hotter.

- Seeing linear line, I predict temperatures of 2013' which doesn't exist in our sample ;

  Seoul : 12.66 , Global : 10.65

- The difference between them is getting smaller, since global is more rapidly increased than Seoul's.