STEPS TAKEN

1) First, I extracted my city (Nagoya, Japan) level and global level data by writing 2 SQL queries as shown below. I exported and downloaded the resulting CSV data, then opened with Microsoft Excel.

```sql
select*
from city_data
where city='Nagoya'

```

```sql
select *
from global_data
```

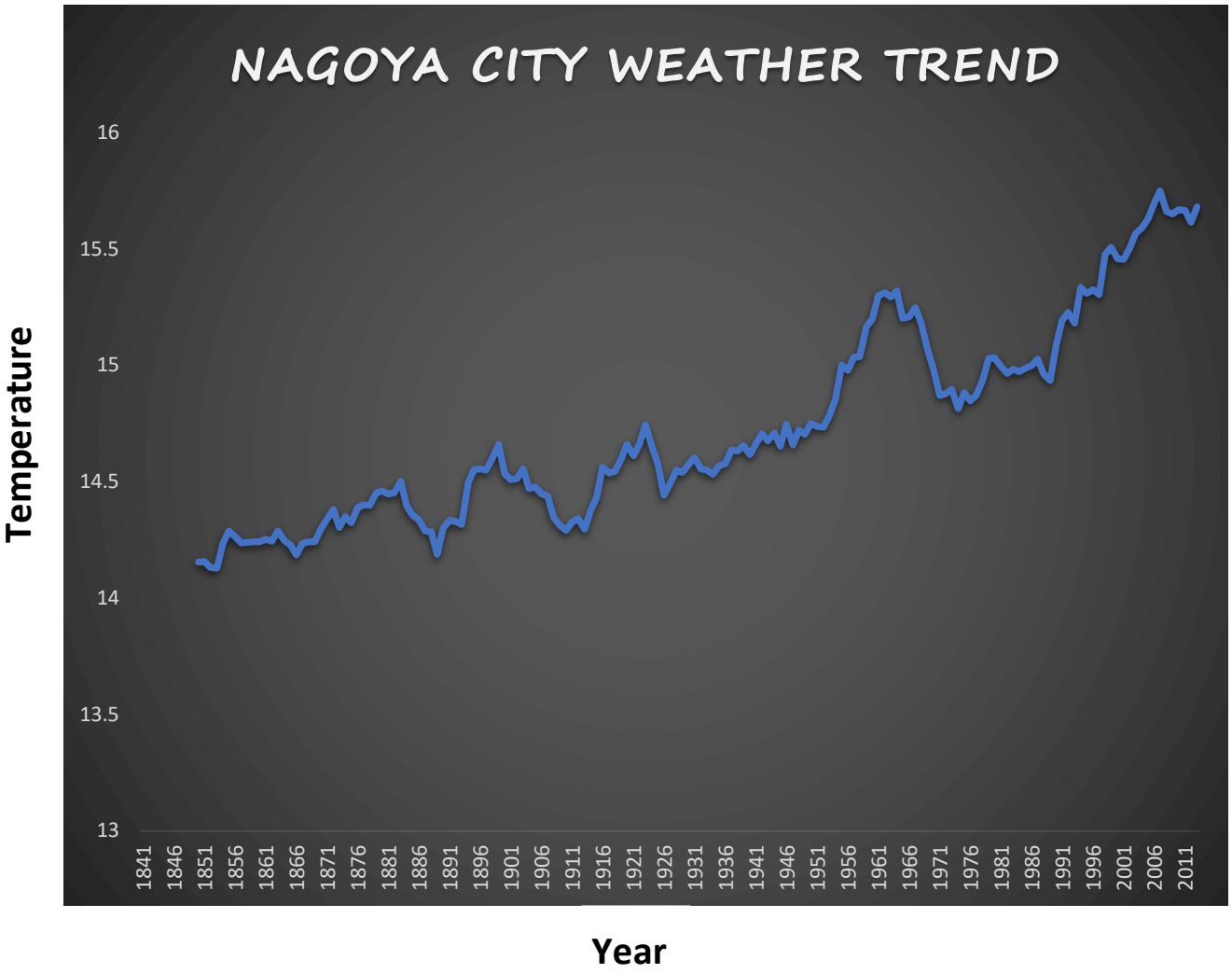
2) I calculated 10-year moving averages from 1841-2013 for my city and global average temperatures using the formula as shown below.

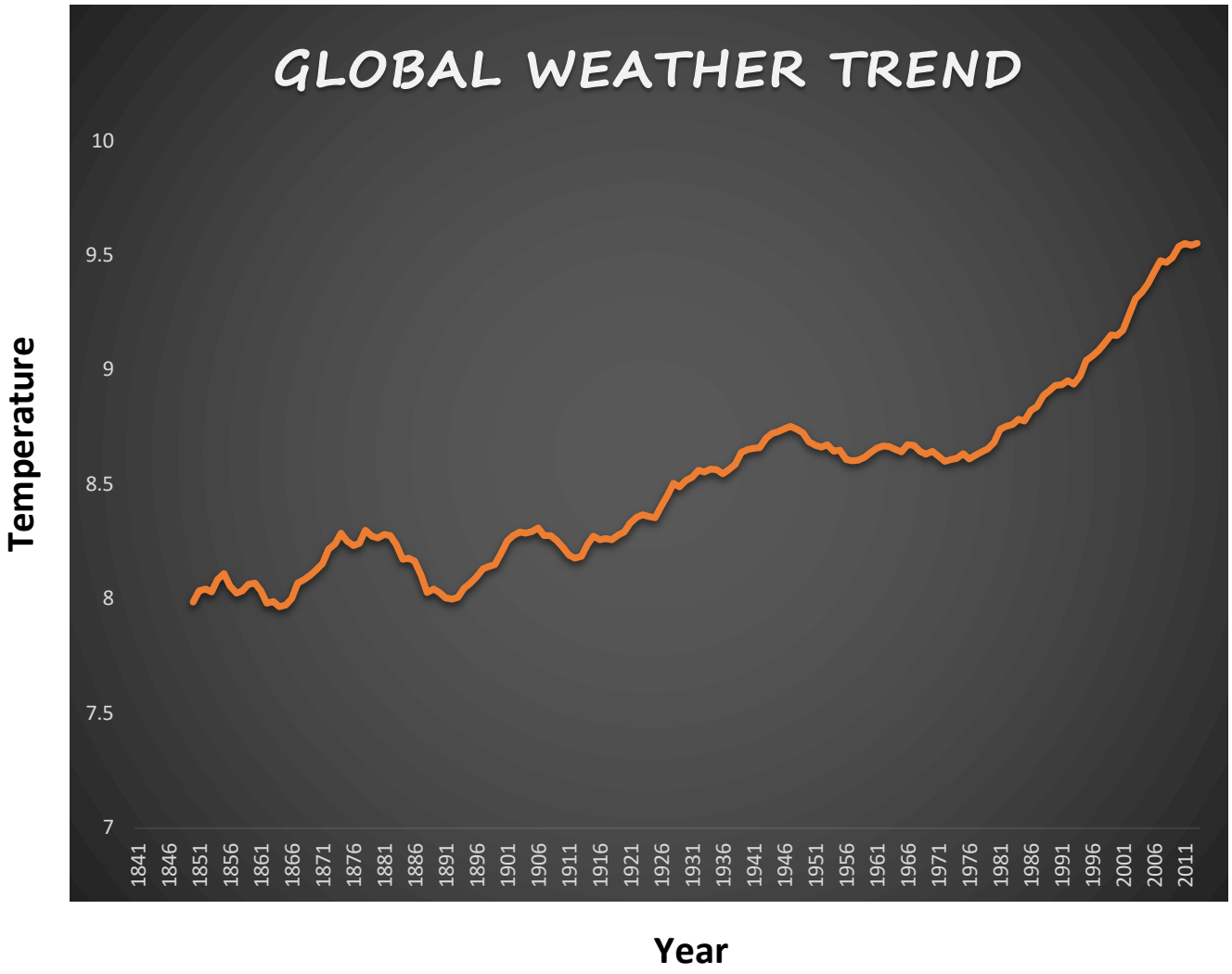
	A	B	C	D	E	F
1	year	city	country	avg_temp	10-year moving average	
2	1841	Nagoya	Japan	13.9		
3	1842	Nagoya	Japan			
4	1843	Nagoya	Japan			
5	1844	Nagoya	Japan	13.43		
6	1845	Nagoya	Japan	14.2		
7	1846	Nagoya	Japan	14.54		
8	1847	Nagoya	Japan	14.5		
9	1848	Nagoya	Japan	14.38		
10	1849	Nagoya	Japan	14.36		
11	1850	Nagoya	Japan	13.95	=AVERAGE(D2:D11)	
12	1851	Nagoya	Japan	13.93	14.16125	
13	1852	Nagoya	Japan	13.91	14.133333	

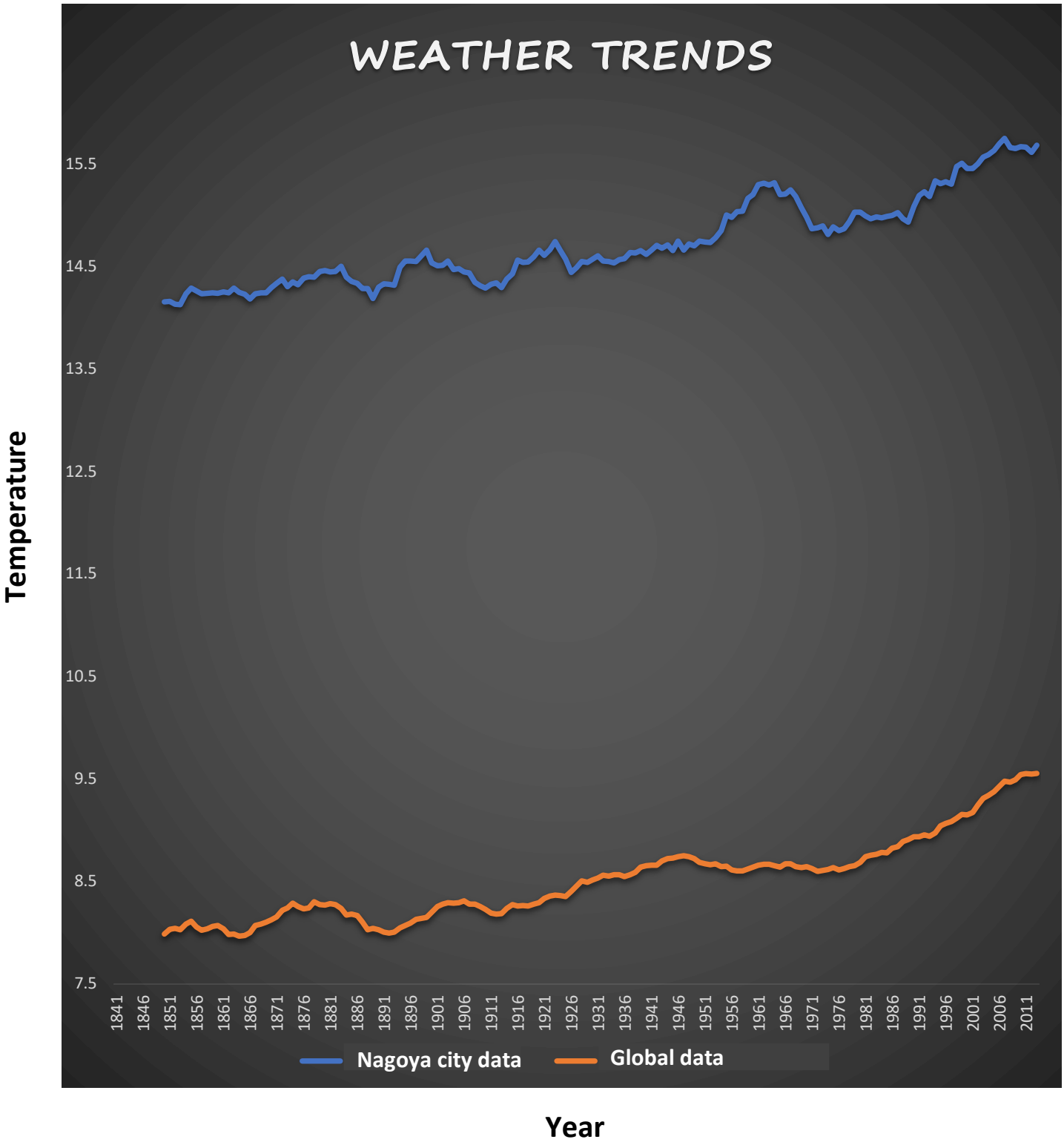
3) I plotted line charts with Microsoft Excel of moving average temperatures against year and made observations.

4) Some key considerations were: I chose similar year ranges to plot city and global line charts, excluding years that were not shared in common between both datasets. Also, to get a clearer visualization of trends, I first plotted individual line charts of single datasets, then combined both datasets in a single line chart.

LINE CHARTS




GLOBAL WEATHER TREND
Temperature
10
9.5
9
8.5
8
7.5
7
1841
1846
1851
1856
1861
1866
1871
1876
1881
1886
1891
1896
1901
1906
1911
1916
1921
1926
1931
1936
1941
1946
1951
1956
1961
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
Year


WEATHER TRENDS
Temperature
15.5
14.5
13.5
12.5
11.5
10.5
9.5
8.5
7.5
1841
1846
1851
1856
1861
1866
1871
1876
1881
1886
1891
1896
1901
1906
1911
1916
1921
1926
1931
1936
1941
1946
1951
1956
1961
1966
1971
1976
1981
1986
1991
1996
2001
2006
2011
Nagoya city data
Global data
Year

OBSERVATIONS

- On average, the weather in Nagoya city, Japan is hotter than the global weather. This difference has been consistent over the time under review. Between 1841-2013, Nagoya's lowest temperature has been higher than the global highest temperature.

- There has been a consistent increasing trend in average temperature in Nagoya over the years. This is comparable to that of the global average temperature, which also shows a trend increase.

- The steepest increase in temperature was observed in the last 40 years in Nagoya. This correlates globally as well.

- Despite the overall increasing trend, there were some years that experienced dips in average temperature both at city and global levels.