

PROJECT ONE: EXPLORING WEATHER TRENDS

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STEP 1: Extracting the data from SQL using the code below:

```
Select city_data.year, city_data.avg_temp AS lagos_avg_temp, global_data.avg_temp AS  
global_avg_temp
```

```
From city_data Join global_data on global_data.year = city_data.year
```

```
where city_data.country = 'Nigeria' and city_data.city = 'Lagos'
```

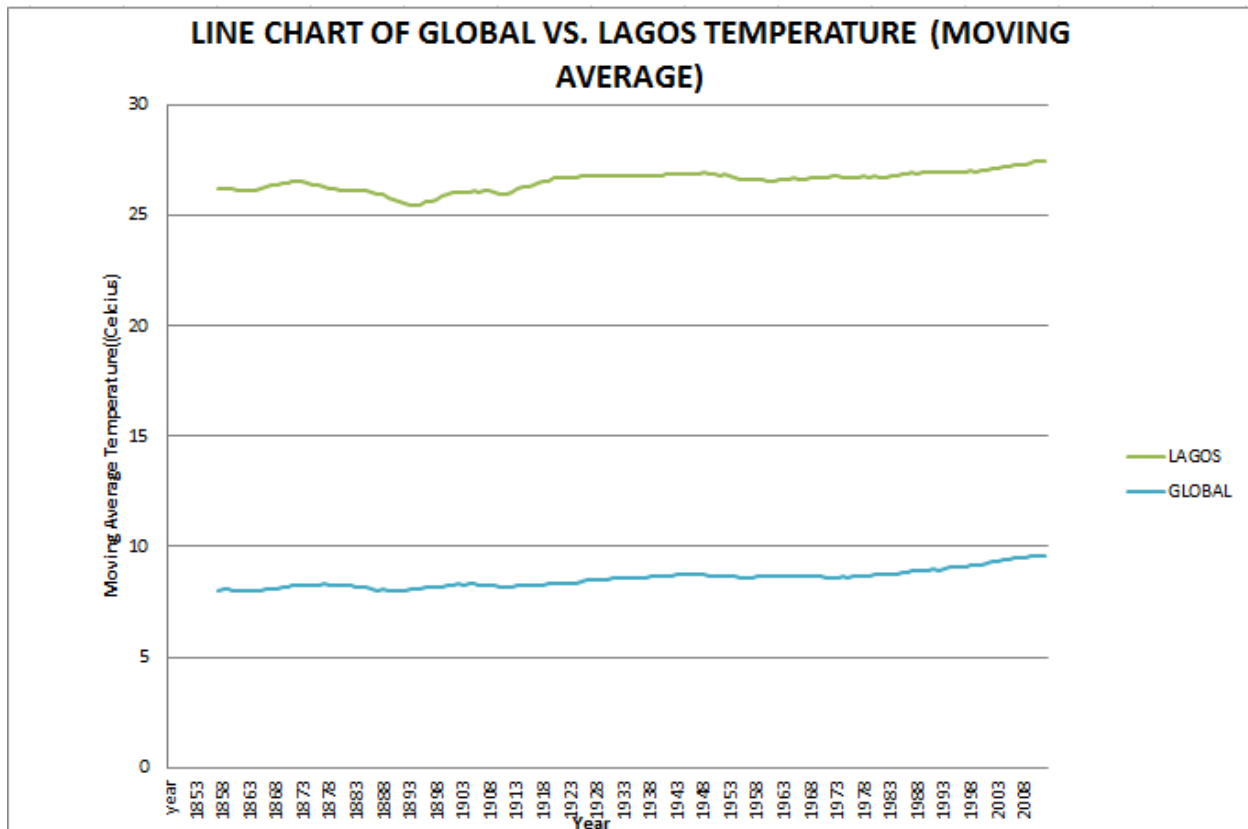
I downloaded the csv file.

STEP 2: Using Excel, I opened the csv file and calculated the mean of my city data (lagos_avg_temp) and filled up the missing cells with the mean then calculated the moving average temperature for my city and global average temperature

	A	B	C	D
1	year	lagos_avg_temp	global_avg_temp	10_yr_lagos_moving_avg
2	1849	25.98	7.98	
3	1850	25.87	7.9	
4	1851	26.1	8.18	
5	1852	26.55	8.1	
6	1853	26.55	8.04	
7	1854	26.55	8.21	
8	1855	26.55	8.11	
9	1856	26.35	8	
10	1857	25.45	7.76	
11	1858	25.92	8.1	=AVERAGE(B2:B11)
12	1859	26.18	8.25	AVERAGE(number1, [number2], ...)
13	1860	26.01	7.96	26.221
14	1861	25.95	7.85	26.206
15	1862	25.9	7.56	26.141
16	1863	26.55	8.11	26.141
17	1864	26.55	7.98	26.141

global_avg_temp	10_yr_lagos_moving_avg	10_yr_global_moving_avg
7.98		
7.9		
8.18		
8.1		
8.04		
8.21		
8.11		
8		
7.76		
8.1	26.187	=AVERAGE(C2:C11)
8.25	26.207	AVERAGE(number1, [number2], ...)
7.96	26.221	8.071
7.85	26.206	8.038
7.56	26.141	7.984

STEP 3:I plotted the 10 year moving average graph of Lagos average temperature and global average temperature as shown below:



OBSERVATIONS:

- Lagos average temperature is hotter than global average temperature
- There is steady increase in temperature for both Lagos and global temperature which could be an effect of the global warming
- Lagos experienced its lowest average temperature in 1890 at 24.86°C
- Between 1886 and 1898, Lagos recorded its lowest average temperatures thus far
- The average temperature for Lagos is 25.98°C while that of global is 8.55°C
- The average difference between Lagos temperature and Global temperature is 17.43°C
- Lagos temperature increased from 25.98°C in 1849 to 27.36 in 2013 while the Global temperature increased from 7.98°C in 1849 to 9.61°C in 2013