

STEPS TAKEN

1. Extracting data from the Udacity workspace, using SQL to extract the city level data. I first viewed the city_list table to find cities in Nigeria using:

```
SELECT *  
FROM city_list  
WHERE country LIKE 'Nigeria';
```

2. I then have to work with **Lagos** as that is my closest city.
3. Next, I have to bring the global data and the city data corresponding to the year in my city Lagos using the following SQL command:

```
SELECT  
cl.*,  
gl.*,  
cd.avg_temp AS city_temp  
FROM city_data cd  
LEFT JOIN city_list cl  
ON cd.city = cl.city  
LEFT JOIN global_data gl  
ON gl.year = cd.year  
WHERE cl.city LIKE 'Lagos';
```

4. I then downloaded the CSV, first for the Lagos city and the city_data, then for the temperature of global with the city data.
5. I opened the CSV in Microsoft Excel, as well as on Google Sheet. But working with Excel, I calculate the ***Moving Averages***.
6. In calculating the Moving Average, I used **=AVERAGE(D2:D15)** formula, and Fill Handle to get the corresponding values downward.
7. The Moving Averages used is 14-year Average.
8. I then plot a line chart using the Moving Averages: I used **14-YEAR MA-GLOBAL** for the global Moving Averages, and **14-YEAR MA-CITY** for the Lagos city Moving Averages.
9. The observations were noted as below.

OBSERVATIONS OF GLOBAL TEMPERATURE TO LAGOS TEMPERATURE

- ✓ Lagos city is much hotter than the global temperature with the least temperature in Lagos at 25.98 degree and the highest global temperature at 9.61 degree.
- ✓ That gives you a different in degree of close to 15 degrees.
- ✓ The changes are symmetrical. They increment in temperature fluctuates sparingly.
- ✓ The climate is obviously getting hotter
- ✓ The temperature increases on the global and Lagos city have been consistent over the last 30 years.

