PROJECT 1 – EXPLORING GLOBAL AND LOCAL WEATHER TRENDS

Choice City – Port Harcourt (Nigeria)

The following steps were taken in other to explore the weather trends:

STEP 1

- Extracted the data in CSV format for Port Harcourt city and the Globe then downloaded them. The data extracted contains their yearly average temperatures from the database given in the classroom environment. The data was extracted with the following SQL queries below:

  For Port Harcourt City Data:

```
SELECT *
FROM city_data
WHERE city='Port Harcourt';
```

  For Global Data:

```
SELECT *
FROM global_data;
```

  TOOL USED – The tool used in extracting the required data from the data base given, was the work space available in the classroom environment.

STEP 2

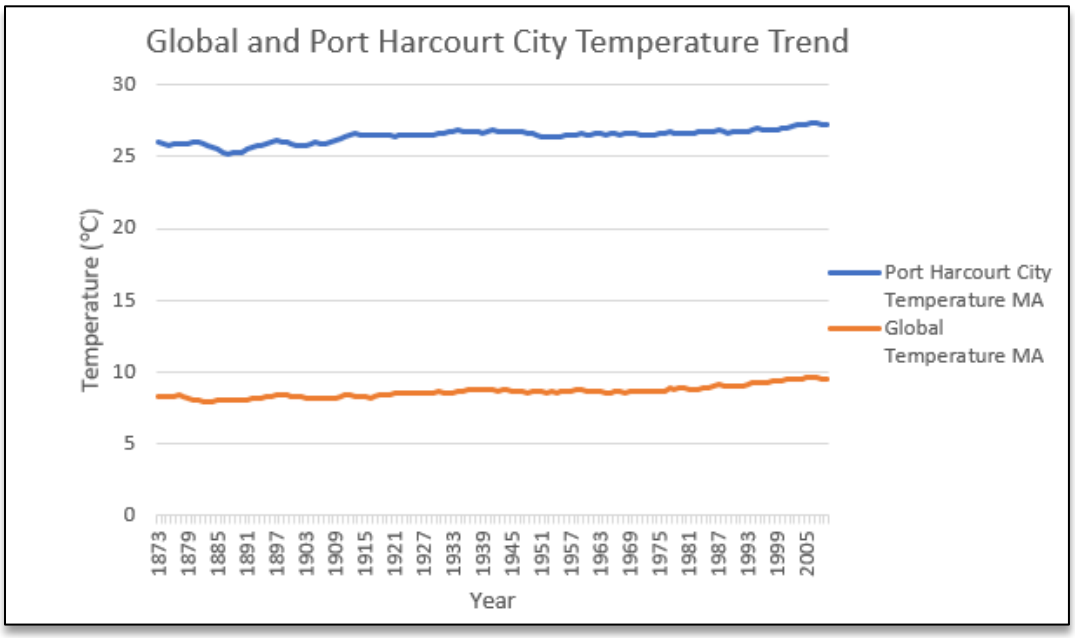
- Opened the already downloaded data in spreadsheet to calculate the moving average for both Port Harcourt yearly average temperatures and Global yearly average temperatures.
- Calculated the moving average by using the moving average feature available on the spreadsheet, under the Data Analysis tab.

- The Moving Average was calculated with **a span of 5 years.**

TOOL USED – The tool used for opening the data and calculating the moving average is MICROSOFT EXCEL.

STEP 3

- A line chart containing Port Harcourt and global temperature moving averages was created to visualize the weather trends for both Port Harcourt and the Globe.



……Weather Trend for Port Harcourt City and the Globe.

CHART ABBRIEVIATONS

MA – Moving Average.

TOOL USED – The tool used for creating the line chart is the chart tool feature available in Microsoft Excel.

STEP 4

OBSERVATIONS

- From year 1993 upwards, there seems to be a rise in temperature for both Port Harcourt city and globally.
- There was a drop-in temperature from 1983 – 1988 in Port Harcourt, while the global temperature was fairly consistent at the same period.
- Between 1913 and 1948 there was consistent trend in temperature change for Port Harcourt and also globally.
- On an average, Port Harcourt city is gets hotter yearly, likewise globally from the trend in the chart above.
- The global temperature is seen to be consistent between 1999 – 2005.