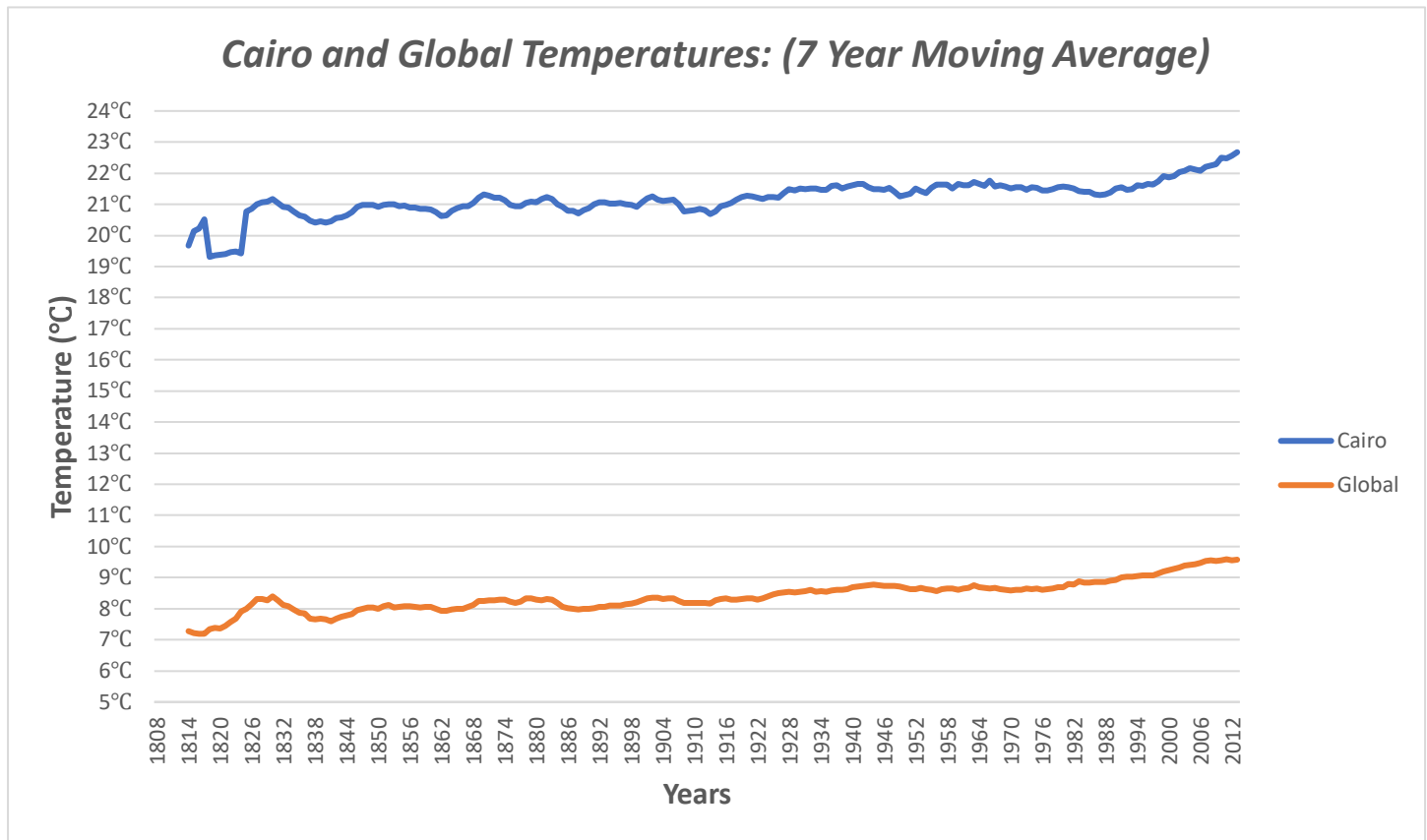# Explore Weather Data

1 - Steps

- **Extracting the Data**
  - My city is Cairo so I will be extracting the data for it.
  - Used the following SQL commands to extract Global Data and my City's Data.
    - SELECT * FROM global_data
    - SELECT year, avg_temp FROM city_data WHERE city = 'Cairo'
    - SELECT c.year, c.avg_temp as cairo_temp, g.avg_temp as global_temp FROM city_data c JOIN global_data g ON c.year = g.year WHERE city = 'Cairo'
  - Download result as CSV file.

- **Creating the line charts**
  - Open the file using Excel
  - Create the 7-year moving average for both columns cairo_temp and global_temp using AVERAGE function into MA_cairo and MA_global.
  - Create the line charts using Line Plot in Excel for Cairo and Global.

2 - Line Charts

Cairo and Global Temperatures: (7 Year Moving Average)

3 – Observations

- The minimum average degree for Cairo is <u>11.6</u> and the maximum is <u>23.72</u> while the minimum average degree globally is <u>6.86</u> and the maximum is <u>9.73</u> .
- Cairo's average temperature is much higher than the global average temperature.
- Cairo's average temperature undergoes more changes and fluctuations than the global average temperature.
- Both Cairo and global temperature are trending upwards.
- Cairo had a significant drop in average temperate in the year 1818.