**Data Analyst NanoDegree**

**Project #1**

**Abdulrahman Manea**

1. **Outline of Solution Steps:**
2. Extract data from the database using the following tow SQL queries:
   1. Local data:
      1. “select \* from city\_data where city='Manama'”
   2. Global data:
      1. select \* from global data
3. Download the data in CSV format
4. Open data in MS Excel
5. Calculate a 10-year moving average using “Average(start:end)” function in Excel
6. Plot data in Excel
7. **Plot:**
8. **Observations:**
9. The average temperature in Manamah is consistently higher than the global average temperature by around 15 oC.
10. The average global and local temperature trends has been showing and increase over this period, with some fluctuations. Specifically, the global temperatures has been steadily increasing since 1980. The local temperature has been also steadily increasing since 1992.
11. The rate of temperature rise has been observably increasing since ~1998 locally. The global trend, on the other hand, show a slower increase in the rate of temperature rise since ~1980.
12. There has been a period of “global cooling” around 1806 – 1818, where the global temperature data has decreased by more than 2 oC. It would have been interesting to see how this compares to the temperature in Manama locally, but unfortunately this data is missing.