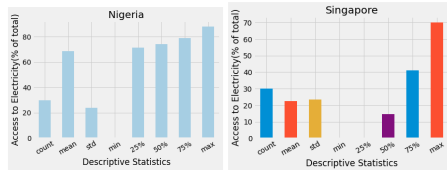


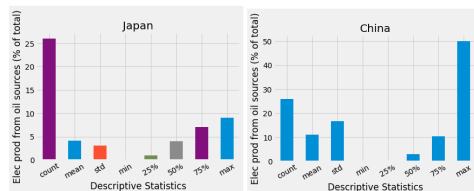
Assignment 2: Statistics and visualisation.

Subject: Applied Data Science 1

In this assignment we have taken two indicators from the world Bank Dataset [Access to electricity, urban (% of urban population), Electricity production from oil sources (% of total)] and using descriptive statistics and other visualization techniques we are comparing these two datasets.

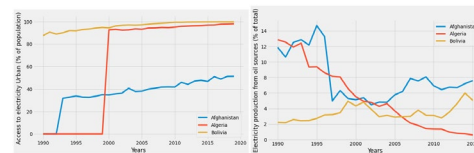


The pandas .describe() function gives a descriptive statistics summary of a dataframe. This includes mean, count, std deviation, percentiles, min-max values of all columns together. The above two bar charts show the descriptive analysis of two countries against each other. The average (Mean) electricity consumed by Nigeria was around 70% while the Singapore consumed around 20% only. The std deviation of Singapore is slightly greater than Nigeria. The count and max values for Singapore was higher than Nigeria. The 25th, 50th percentile of Nigeria is higher than Singapore while the 75th percentile of Nigeria is 40% greater than Singapore.



The above Descriptive statistics is from the indicator Electricity produce from oil sources (% of total). The count value for Japan is slightly lower than China. The average (Mean) oil produced by China is

higher than Japan. While China doesn't have the 25th percentile Japan has around 2% of it. The 50th percentile of Japan is greater than China while the 75th percentile of China is greater than Japan.



Using the above graph, we are comparing the access of electricity in different countries over three decades and the production of electricity. Seeing the above graph, two different countries had extreme electricity population consumption situation. Bolivia had the highest consumption of electricity and Afghanistan has seen the sudden rise in consumption from early 1990's & Algeria has seen it in early 2000's. Afghanistan in the 1995 has produced the maximum electricity from oil resources. From 1990's to 2015 we can see that Algeria has the decline in the production of electricity. Whereas,

Bolivia always had the average production from oil resources and maximum population consumption of electricity out of three countries.