**Code inclusive data Science interns: Numpy and Matplotlib**

Outliers in a particular data set can render statistical result from the data set useless or help the researcher dig deep in findings. They are extreme values in a particular data set.

**1.**

Working with Numpy, create a function which generate 20 random integers between 20 and 70.

Compute the mean , variance , standard deviation ,median, maximum and minimum value of this data set. These result should be returned from the data set as a dictionary. Use appropriate names for the keys of the dictionary. The dictionary being returned should include the **data** generated as one of it’s value.

**2.**

Create a function which utilizes the result returned from the function above. Your function should compute the number of data items less than the mean , and an array of z-scores( i.e data minus mean divided by the standard deviation).

Determine if all z-scores are lies between -3 and 3. The results should be printed to the console.

**3.**

Using the generated numbers returned from **1,** plot a box plot and interpret the result of the box plot(explaining what a box plot is used for and what each major point on the box plot entails).

**4.**

Using the data returned from **1,** change the value of the item at index 15 to 270, then compute same values computed in **1,** then obtain the box plot for this new data set.

**Best of Luck**