

### **In-Class-Assignment3:**

Statistic Analysis

Assignment Type: Individual lab work

Weight: 5%

Time: In Class/ ...../

Tasks:

In this assignment, you will continue working on your selected data source from the previous assignment and present data set statistics and practice data visualization.

For each selected column compute:

1. Range
2. Interquartile range (IQR)
3. Median
4. Mean
5. Mode
6. 1<sup>st</sup> and 3rd quartiles
7. Sample variance and sample standard deviation
8. Find Outliers

Draw the following diagrams:

1. Box Plot
2. Sea-born Simplot
3. Linear regression
4. HeatMap

Perform statistical analysis and present results in graphical format.

Deliverables:

- a) Submit a professional report including at least:
  - a. Explain the steps/formulas that have been used for calculation process

- b. Detailed explanations of your solution including snippets of your source code.
  - c. Describe results from statistical analysis and diagrams.
  - d. Your experience reflection
- b) Python Jupiter notebook
  - a. Comments in code
  - b. Fully working solution

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