**Lab Experiment 2**

**Data Analysis Using Python Pandas**

**Objective:**

To analyze a dataset that you scraped from a website (static or dynamic) and use Python's Pandas library to:

1. Compute summary statistics.
2. Measure the dispersion of the data.
3. Analyze similarity/dissimilarity of the data.

**Instructions:**

1. Dataset Preparation: The dataset should have mix of different kind of data and at least one numerical and one categorical data
2. Compute summary statistics such as mean, median, mode
3. Compute dispersion of the data such minimum, maximum, range, count, variance, standard deviation, IQR
4. A logistics company wants to analyze the distances between its delivery hub and several customer locations in a city. The locations of the hub and customers are represented as coordinates on a 2D plane.

* Delivery hub coordinates: (0,0)
* Customer locations: Customer 1: (3,4), Customer 2: (1,1), Customer 3: (5,2)
  1. Calculate Euclidean, Manhattan, Minkowski (p=3) and chebyshev distance

**Submission Guidelines:**

1. Submit the assignment as a .ipynb (Jupyter Notebook) file or .py script. **Include a .pdf export** of the notebook / script. ( [Click Here](https://www.analyticsvidhya.com/blog/2024/08/ipynb-files-to-pdf/) If you do not know how to export PDF from .ipynb notebook)
2. Include comments in your code to explain your logic and approach.
3. Use Markdown cells for detailed explanations, if necessary, especially for complex code blocks
4. Ensure that all code cells have been executed and the outputs are visible.
5. Do not clear the outputs before submission.
6. Submit the assignment via the designated Google Classroom link.
7. Submit your work before the deadline.
8. Late submissions may incur penalties
9. Avoid Plagiarism; ensure the work you submit is your own