**Introduction to Data Mining**

**Assignment#3**

**Due: 11th June, 2023 (11:59 PM)**

Case study:

[UCI Machine Learning Repository: Higher Education Students Performance Evaluation Dataset Data Set](https://archive.ics.uci.edu/ml/datasets/Higher+Education+Students+Performance+Evaluation+Dataset)

For the case study assigned to you:

1. Select attributes according to your group number in the following manner: The dataset has 31 attributes (1-31), and one class label (attribute 32). Group1 should use attributes 1-6, Group 2 attributes 2-7, and so on. Do not use attribute 31.
2. You have to carry out classification
   1. Carry out classification by selecting two classification algorithms that you have studied in class. Justify your choice
   2. Evaluate the results of classification using precision and recall
3. You have to carry out clustering
   1. Carry out clustering by selecting two clustering algorithms that you have studied in class. Justify your choice
   2. Evaluate the results of clustering using precision and recall

Use the scikit-learn library in Python for the above.

Submission:

Source code, and a short report containing justification of

* Why you chose the algorithms
* Which algorithm performed better