**THE UNIVERSITY OF HONG KONG**

**DEPARTMENT OF COMPUTER SCIENCE**

**FITE7410 Financial Fraud Analytics**

**First Semester, 2023-2024**

**Assignment 2**

**(Due Date: 13 Nov, 2023 (Mon) 23:59)**

**Assessment Criteria:**

* Plagiarism: Please follow the guidelines laid down by our department.
* You are allowed to discuss the assignment with your classmates; however, direct copy and paste is PROHIBITED and would be considered as PLAGIARISM.
* Assignments would be marked based on the logic, presentation and understanding of the problem, not only on accuracy.
* LATE PENALTIES: 50% of assignment marks will be deducted for late submissions. 0 marks if the submission is later than 2 weeks.

1. (50%) Any TWO Supervised Learning Algorithm
   1. Download the ENRON dataset (which was used in Assignment 1)
   2. Using the R package, develop a fraud detection model using any TWO supervised learning algorithms.
   3. Please refer to the provided R program of a fraud detection model using TWO sample supervised learning algorithms
2. (50%) Write an essay of not more than 2 pages on the following:

Based on the results of your fraud detection models developed in (1) above:

* 1. Describe the performances of the 2 fraud detection models based on the results; and
  2. Explain which one is more suitable for this case and why from a practical perspective by citing examples.

1. Submission on Moodle:
   1. R language script
   2. A **pdf** version report