School of Computer Science and Engineering, VIT Chennai.

CSE4020 Machine Learning

**Lab-8 Comparison of Naïve Bayes, Decision tree, Logistic Regression and KNN classification algorithms**

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Submit your python code (Jupyter notebook)

Compare performance of the Naïve Bayes, Decision tree, Logistic Regression and KNN classification algorithms on the following datasets (already shared before)

1. Heart disease
2. Music emotion recognition dataset

You can use sklearn libraries. You must aim to get highest accuracy as much as possible with suitable hyper parameter tuning.

1. Need to show all the pre-processing steps (normalization, feature encoding etc.)
2. Print confusion matrix
3. Print accuracy, precision and recall for all the algorithms.

Write your inference (which algorithm did better,etc) in a textbox in the same python notebook.

You may download the datasets from here also:

<https://archive-beta.ics.uci.edu/datasets>