School of Computer Science and Engineering, VIT Chennai.

BCSE209P Machine Learning

Lab-9 Comparison of Classification Algorithms

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**Due Date : 17/03/2025**

Submit your python code (Jupyter notebook): with output for all the questions.

Q1. You are given with a dataset having features such as car acceptability, technical characteristics, buying price, price of the maintenance etc. You need to build a suitable machine learning model to evaluate the performance a car with good accuracy.

Compare performance of the classification models SVM, neural network, Naïve Bayes, decision tree, Logistic Regression for the car evaluation task and report the accuracy, precision, recall, and F1-score. Print confusion matrix.

Q2. Apply a suitable algorithm to cluster the instances in the car dataset into 4 different groups. Print the sum of squared deviations resulting from all 4 groups.