

## Decision tree based classifier model building using ID3 algorithm

Reference: [Student Alcohol Consumption](#)

- a) Built a classifier model based on ID3 algorithm. You should divide the data set randomly in 2:1 ratio using Bootstrap sampling method and then learn the model using the training data set.
- b) Verify the classifier's performance on the test set. Use  $k$ -fold cross validation with different values of  $k$ . Decide the best  $k$ -value.
- c) Show the performance measure in terms of Accuracy, F1-score, Precision, Recall and Confusion matrix.