

Lab Exercise – 10: Decision Tree Classifier

NOTE:

- * Prepare a PDF document and name the file as “Lab9_RegisterNo.pdf”.
- * PDF file should consist Question No, Code, and Result for each Question.
- * File Should be headed with your Register number, Slot number, Lab Exercise number.

1.

a. Develop a python function to calculate Information Gain and Gain Ratio for a categorical attribute.

Input: A data frame consists of Attribute and its Class Label

Output: Splitting Criteria, Data Partitions after splitting, and corresponding calculated measure values.

b. Repeat (a) for every attribute of the following data set “tennis.csv”

c. Identify best attribute and draw the decision tree diagram up to 3 levels using [anytree](#) package and by applying iteratively step (b) on data subsets.

d. Calculate accuracy of constructed Decision Tree.