TDT4171 AI Methods Exercise 3

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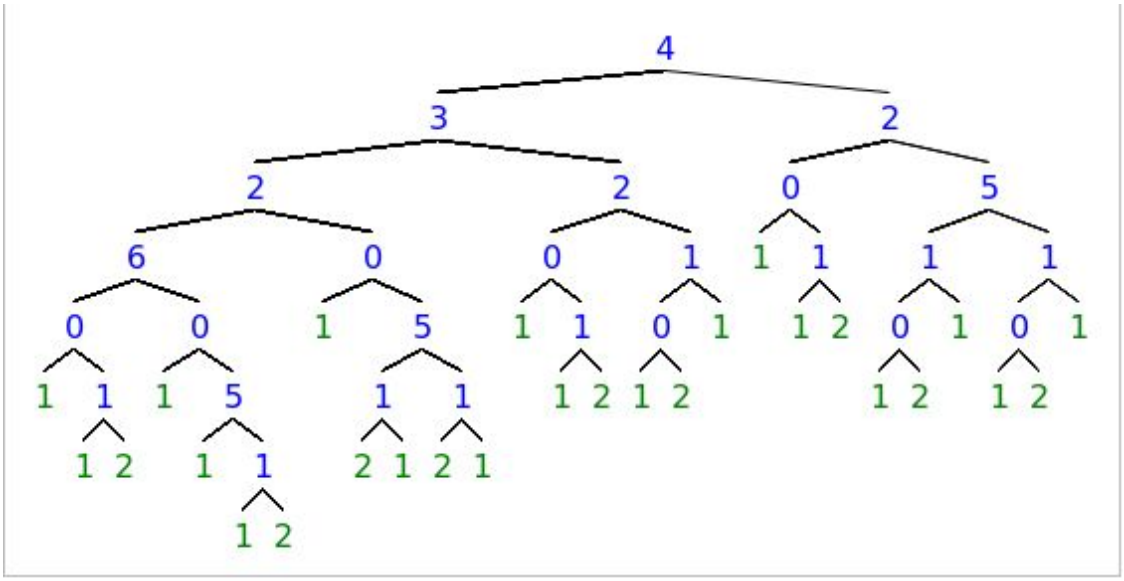
Fidings:



The left tree, generated by giving random importance has an accuracy of 96%, 27 out of 28, while the right tree has 100% accuracy. From this it's easy to see that the expected information gain importance(EIG) function is better. Also, for this test set, the EIG will give the same tree every time, while the random one will give a new tree every run, by running the random 10 times I saw that the tree learner kept its accuracy above 60%. By this the EIG function will be better, as it will always give the best possible result.