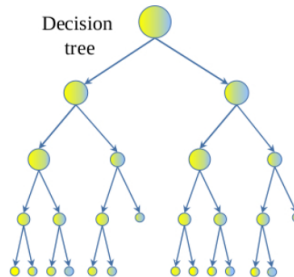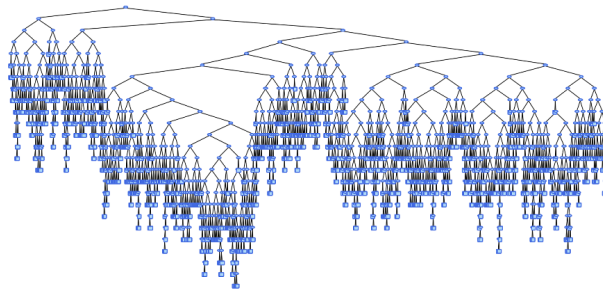# Decision Trees Implementation Issues

- The outcomes of decisions, subsequent decisions, and payoffs are based on expectations and when actual decisions are made the results may not line up with what we were expecting.

- Unexpected events may change decisions, subsequent decisions, and payoffs in a decision tree.

- Decision trees are helpful when there are fewer decisions and outcomes to account for, but if it is a large tree with many decisions and their outcomes, then it becomes convoluted and tedious to map out.

- As the number of decisions incorporated in a decision tree increases, the complexity of drawing a tree increases and the accuracy of the outcome decreases.

- The accuracy of a decision tree is dependent on how accurate the input is. The smallest alteration to the input or to the middle part of the tree can lead to major changes in the result.

- Decision trees examine a single field at a time, which is unlike how records are actually distributed.

- In decision trees, there exists the probability of reoccurrence of the same subsequent decision in a different path.

- Decision trees can be inaccurate. There are several other predictors that perform better with similar data.

- When decision trees deal with categorical variables with different number of levels, information gain is likely to favor attributes with a larger number of levels.