File Name: results.pdf
Contains: A brief commentary on Problem 3

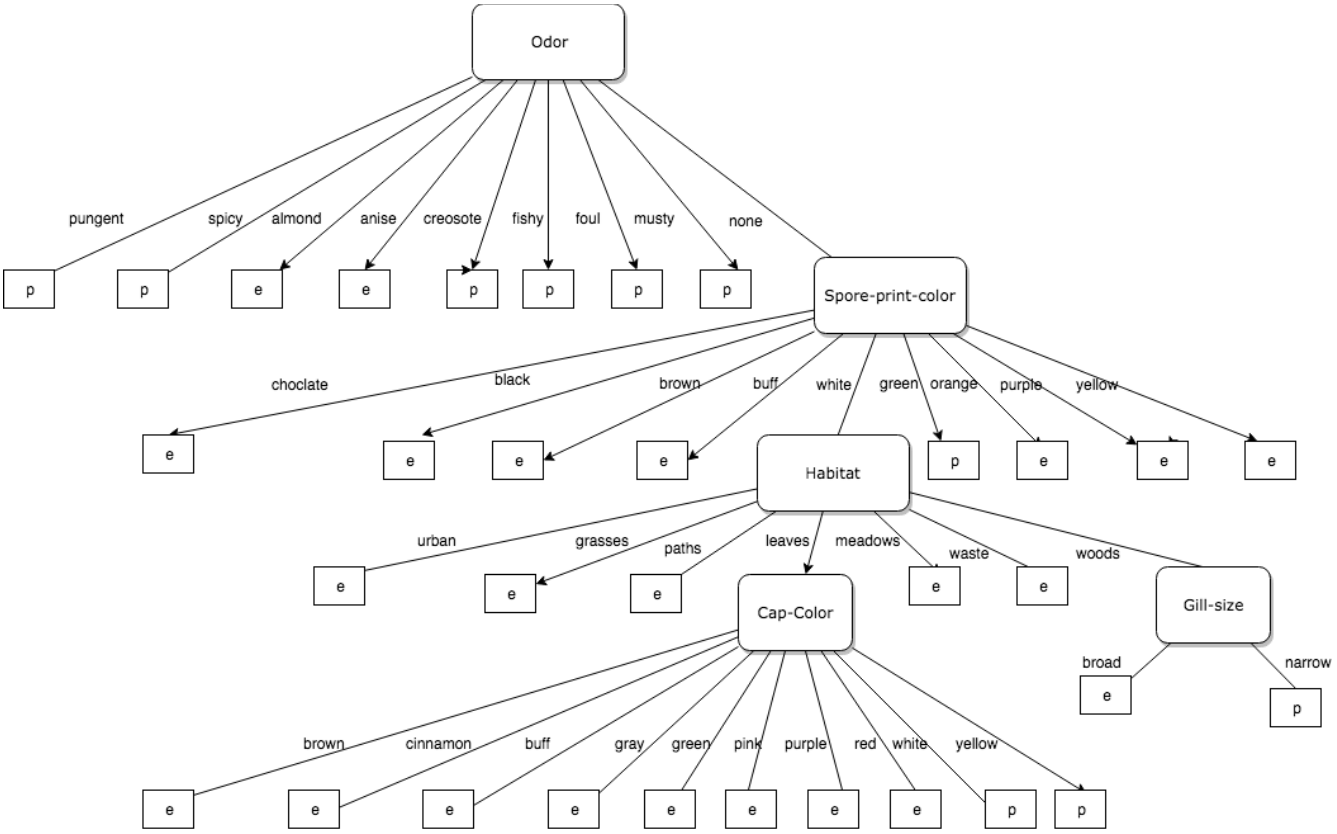

Figure 1: Graphical representation of decision-tree-learning output on mushrooms example

The above figure is a graphical representation of the scheme output generated upon using our decision-tree-learning algorithm on the mushroom example. It was suprising to see that all 8124 examples were classified by only 5 attributes. We expected our tree to be much larger given the sheer number of examples. Unlike the examples seen in class, the mushroom examples have a higher branching factor. This contributes to the shallower depth of the tree.

Another detail that we noticed was that regarding the plurality-value. In the third base case of the algorithm, when the list of attributes is empty, the algorithm returns the plurality-value of the remaining examples. This is problematic since it somewhat defeats the purpose of passing a default value of '#f'. Furthermore, in the context of classifying mushrooms as edibile or poisionous, the conseqence of falsely classifying a poisinous mushroom as edible can be devastating.