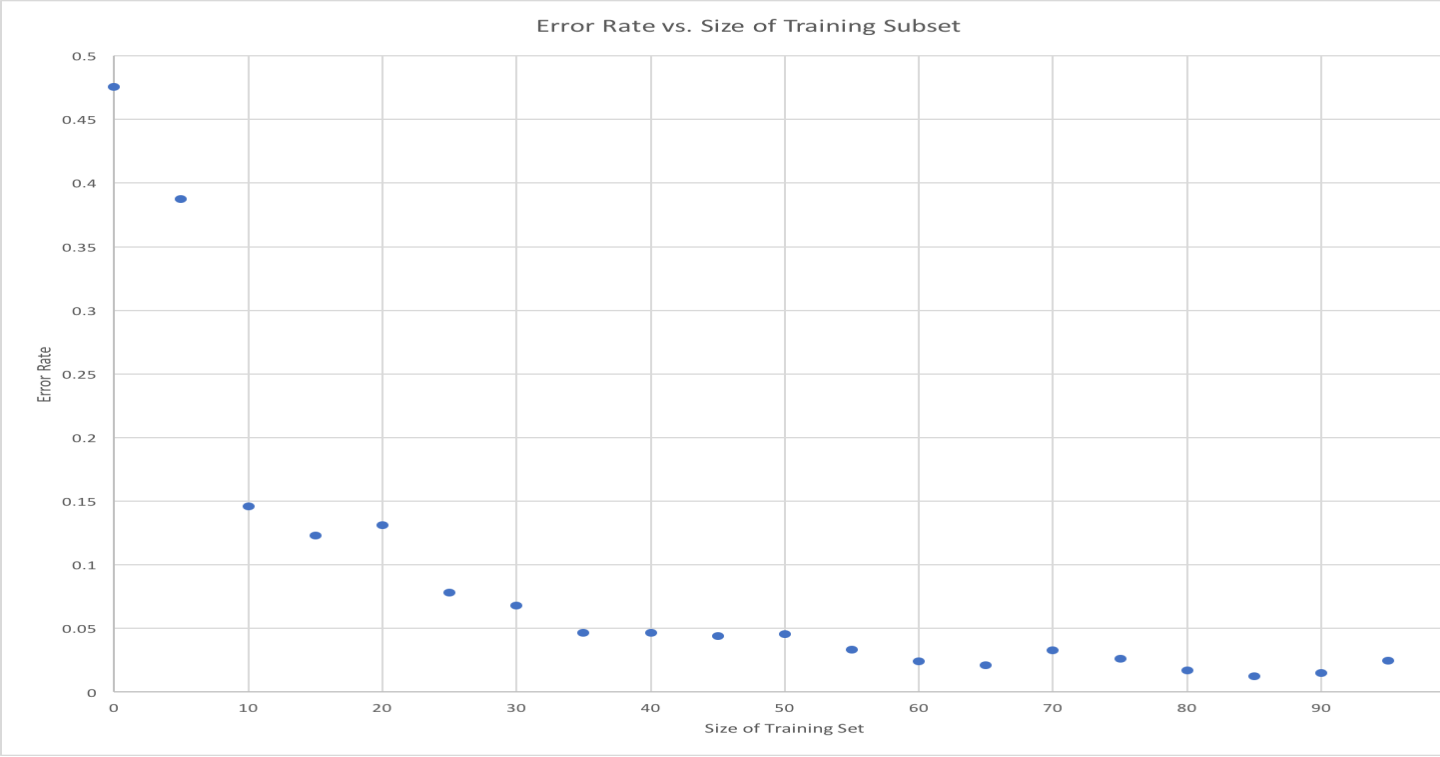
Lab: Decision-Tree-Analysis
File: analysis.pdf
Summary: Data and analysis for part 2.

2. a. The accuracy is 1. This is evidence that there are not examples with the same attributes that have different classifications - if there were, we would have hit cases where we needed to use the plurality-value cases in decision-tree-learning, which would lead to incorrect classifications. This does not, however, check for whether there are missing attributes that we would need to classify other mushroom examples - we would need to do different testing to learn about that. We just know that the attributes we had were enough to distinguish between the mushroom examples we were given.

   b. The data and explanation are below.



Data gathered from run-trials program, with default value "edible" and number of trials 10. A decision tree was training on a small subset of the mushroom examples, and tested on many others, to see how the error rate changed as function of the size of the training set. It repeated this process ten times, then took the average, in order to reduce noise