

## Homework 3 Answers

1.1.a

There are 3 levels.

1.1.b

Level 0, Vertex 1: Default class label is setosa

Level 1, Vertex 2: Default class label is versicolor

1.1.c

Level 0, Split on attribute: Petal.Length

Split points:  $< 2.5$  left subtree,  $\geq 2.5$  right subtree

Level 1, Split on attribute: Petal.Length

Split points:  $< 4.8$  left subtree,  $\geq 4.8$  right subtree

1.1.d.i

The middle line in each vertex signifies the probabilities of each class label at that vertex.

1.1.d.ii

The last line signifies the probability of entire data at vertex belonging to these class labels