CSDS 440: Assignment 2

Shaochen (Henry) ZHONG, sxz517

Mingyang TIE, mxt497

Due on 09/18/2020, submitted early on 09/11/2020

Problem 9

In *Problem 7*, every attribute has the equal amount of Ts and Fs and also equal amount of 0 and 1 labels corresponding to their T and F groups. Thus every attribute will have their $IG = 0$ and ID3 will stop.

However, in *Problem 8*, with the introduced weight, we have $IG(A_1) \approx IG(A_2) \approx IG(A_3) \approx 0.0343$ and $IG(A_4) \approx 0$. Therefore the algorithm may first split on any attribute among A_1, A_2, or A_3 and form a decision tree.