

Decision Tree Exercise

Question

We use the dataset below with a decision tree to predict if students will pass the module (Yes or No), based on their previous GPA (High, Medium, or Low) and whether or not they studied.

GPA	Studied	Pass
L	F	F
L	T	T
M	F	F
M	T	T
H	F	T
H	T	T

1. What is the entropy $E(\text{Pass})$?
2. Draw the full decision tree that would be learned for this dataset.