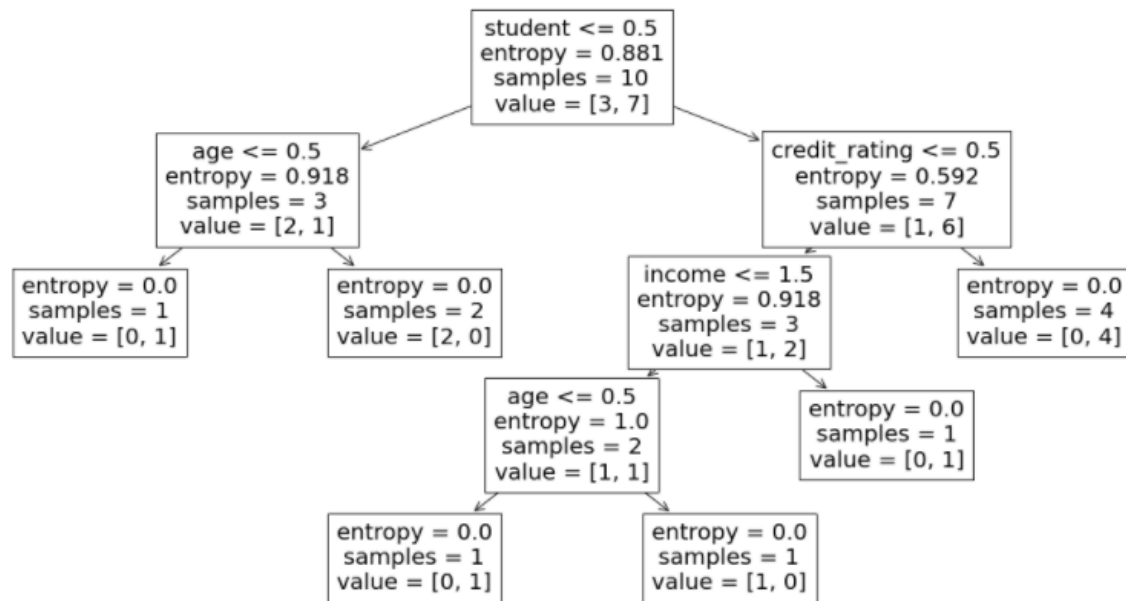


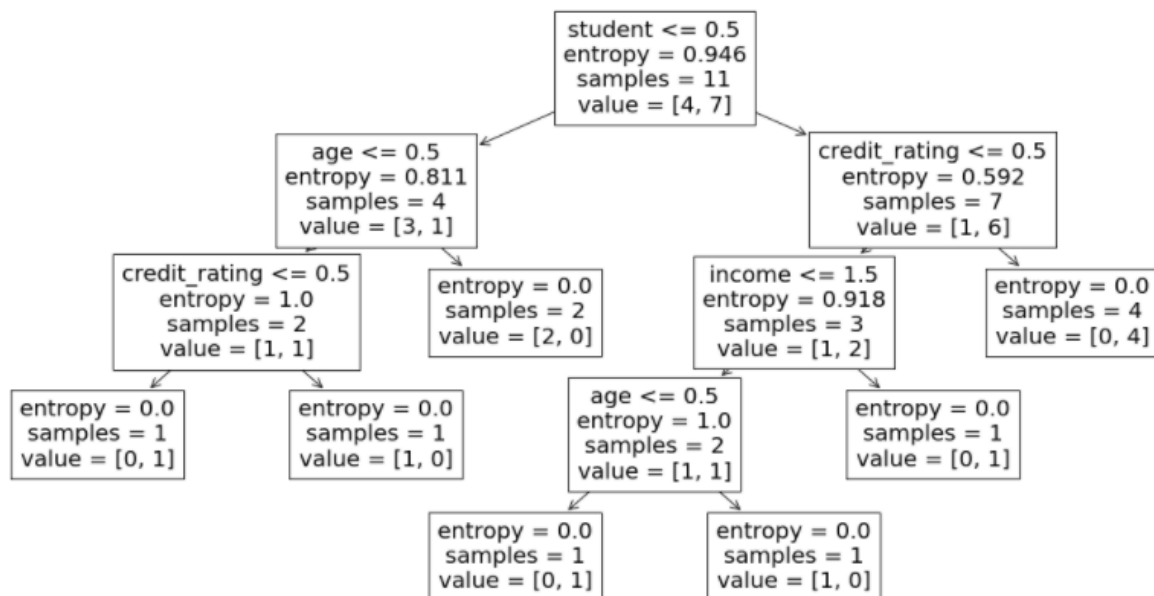
Question 1:

1a. Decision tree using information gain and its training + testing accuracy



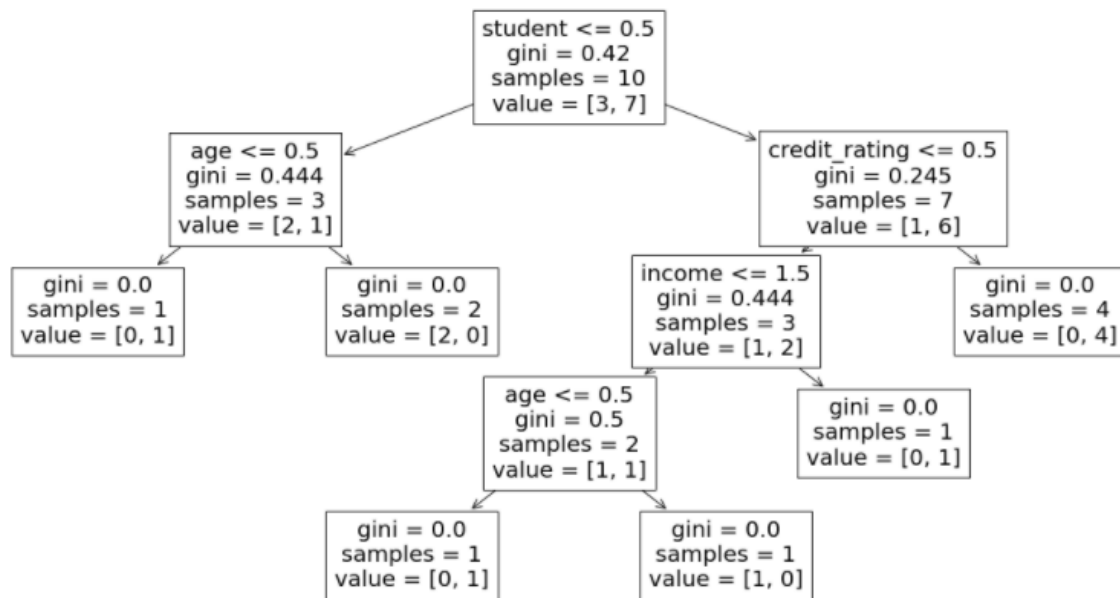
The training accuracy is: 1.0
The testing accuracy is: 0.75

1b. Decision tree using information gain + noisy data and its training + testing accuracy



The training accuracy is: 0.9090909090909091
The testing accuracy is: 0.5

1c. Decision tree using gini index + its training and testing accuracy



The training accuracy is: 1.0
The testing accuracy is: 0.75

Question 2

2a Naïve Bayes classifier on the original data set

The training accuracy is: 0.9
The testing accuracy is: 0.25

2b Naïve Bayes classifier on noisy data set

The training accuracy is: 0.8181818181818182
The testing accuracy is : 0.25