Report

I did not get the output as desired. Especially during the find function and entropy classes as I repeatedly got some errors or the other regarding the number of function calls being out of bound.Hence I am attaching the pseudocode and tried to explain the logic in the best way I can.

Function find

- Combined the attribitues and classes into a mx16 cross array
- I separated the positive and negative values to separate array
- Found info gain for each iteration (comparing current attribute to the class)
- Found the maximum to split on..ie the root in first case

Function train

- cheak to see if zero and majority votes based on number of elements in class
- In the recursive part,I called the find function. Initialised the left and right node.Tested the class for zero or one and recalled the function again sending the corresponding nodes.

Function classify

- If the split has not occurred then it is a leaf node.Hence change the class with the desion attribute.
- If split has occurred, split it into left and right.

Function entropy (P)

```
h=-1*p(1)*log2(p(1))+-1*p(2)*log2(p(2));
```

Function entropy(class)

- Find the unique number of ones and zeros
- Hence compute probability and entropy using
  ```
  h=-1*p(1)*log2(p(1))+-1*p(2)*log2(p(2));
  ```