✓ **Congratulations! You passed!**

Go to next item

Grade received 100%    Latest Submission Grade 100%    To pass 80% or higher

1.
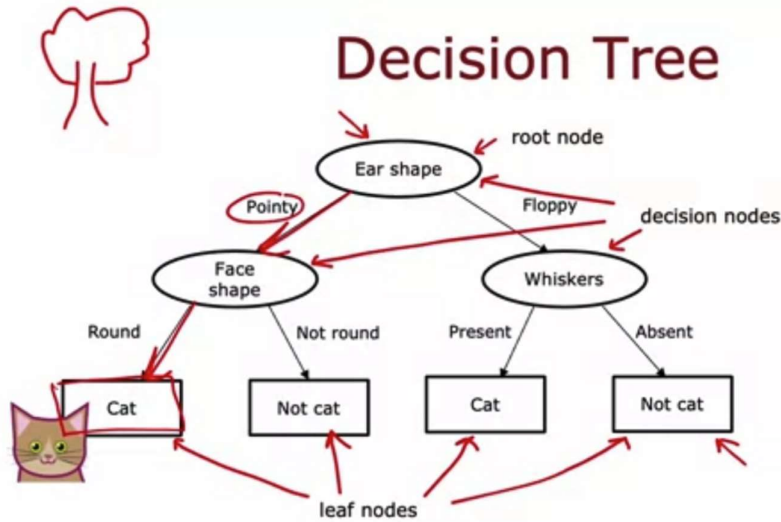


1 / 1 point

Based on the decision tree shown in the lecture, if an animal has floppy ears, a round face shape and has whiskers, does the model predict that it's a cat or not a cat?

○ Not a cat

◉ cat

✓ **Correct**
Correct. If you follow the floppy ears to the right, and then from the whiskers decision node, go left because whiskers are present, you reach a leaf node for "cat", so the model would predict that this is a cat.
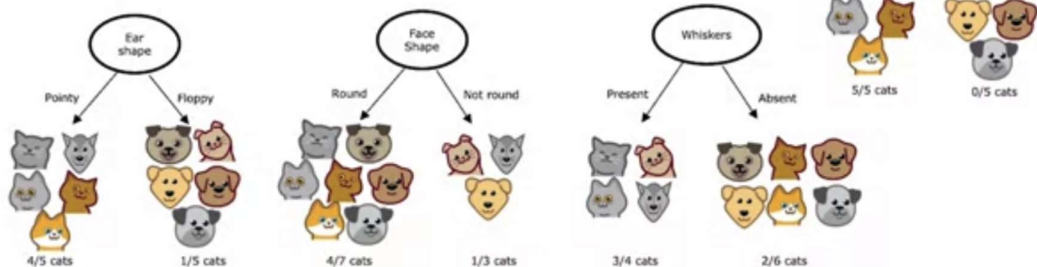
2.

1 / 1 point

Take a decision tree learning to classify between spam and non-spam email. There are 20 training examples at the root note, comprising 10 spam and 10 non-spam emails. If the algorithm can choose from among four features, resulting in four corresponding splits, which would it choose (i.e., which has highest purity)?

- ● Left split: 10 of 10 emails are spam. Right split: 0 of 10 emails are spam.
- ○ Left split: 5 of 10 emails are spam. Right split: 5 of 10 emails are spam.
- ○ Left split: 7 of 8 emails are spam. Right split: 3 of 12 emails are spam.
- ○ Left split: 2 of 2 emails are spam. Right split: 8 of 18 emails are spam.

⊘ **Correct**
Yes!