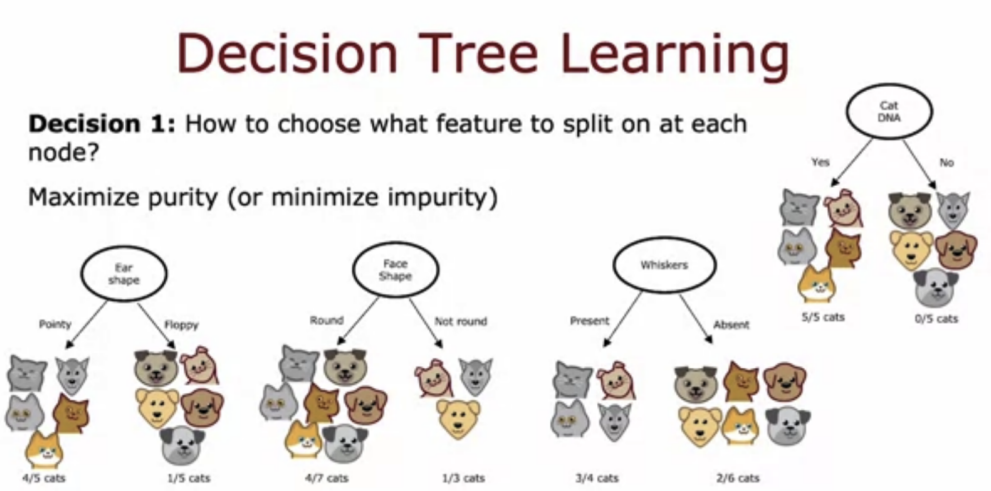
# AdvancedLearningAlgorithms - WEEK4 - DecisionTree - QUIZ 1 (DecisionTrees)

Link: AdvancedLearningAlgorithms - WEEK4 - DecisionTree - QUIZ 1 (DecisionTrees)




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

✓ **Correct**
Yes!