Gini Index and Generalizability Quiz - Module 5 Lab 3

FMML 2022

1. Currently, the accuracy of decision tree with max_depth=d is x. Increasing the max_depth of the decision tree would:

   - Lead to accuracy greater than x
   - Lead to accuracy lesser than x
   - First increase the accuracy and then decrease the accuracy
   - May or may not increase the accuracy

2. Which is better metric for creating a decision tree?

   - Gini Impurity
   - Information Gain
   - Can't be said
   - Entropy

3. In a two class classification problem, it is known that there 10 data points in the train set. Though their classes are not known. Without any more information, how many different decision tree classifiers could be possible after training if their is no max_depth restriction?

- 1024
- 2048
- 10
- 20
- 512

4. For the titanic dataset we used in our lab, for which value of max_depth do we get highest accuracy? (With other parameters : min_samples_leaf=2, min_samples_split=4, criterion="gini") [Select all that apply]

- [ ] 4
- [x] 5
- [ ] 6
- [x] 7
- [ ] 8

5. For the titanic dataset we used in our lab, for which value of max_depth do we get highest accuracy? (With other parameters : min_samples_leaf=3, min_samples_split=6, criterion="entropy") [Select all that apply]

- [x] 3
- [ ] 6
- [ ] 9
- [x] 12

your password.