

## DECISION TREE API SUMMARY

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Decision Trees (DTs) are a non-parametric supervised learning method used for classification and regression. The goal is to create a model that predicts the value of a target variable by learning simple decision rules inferred from the data features. A tree can be seen as a piecewise constant approximation.

```
class sklearn.tree.DecisionTreeClassifier(*, criterion='gini', splitter='best', max_depth=None, min_samples_split=2, min_samples_leaf=1, min_weight_fraction_leaf=0.0, max_features=None, random_state=None, max_leaf_nodes=None, min_impurity_decrease=0.0, min_impurity_split=None, class_weight=None, ccp_alpha=0.0)
```

### PARAMETERS:

- criterion{"gini", "entropy"}, default="gini"
- splitter{"best", "random"}, default="best"
- max\_depth: int, default=None
- min\_samples\_leaf: int or float, default=1
- min\_weight\_fraction\_leaf: float, default=0.0
- random\_state: int, RandomState instance or None, default=None
- max\_leaf\_nodes: int, default=None
- min\_impurity\_split: float, default=0
- ccp\_alpha: non-negative float, default=0.0

### ATTRIBUTES:

- classes\_: array of shape (n\_classes,) or list of ndarray
- feature\_importances\_: ndarray of shape (n\_features,)
- max\_features\_: int
- n\_classes\_: int or list of int
- n\_features\_: int
- n\_features\_in\_: int
- feature\_names\_in\_: ndarray of shape (n\_features\_in\_,)
- n\_outputs\_: int
- tree\_: Tree instance