```
import numpy as np
import pandas as pd
from sklearn.datasets import make_classification
from sklearn.ensemble import BaggingClassifier,RandomForestClassifier
from sklearn.tree import plot_tree
import matplotlib.pyplot as plt

X,y = make_classification(n_features=5, n_redundant=0,
n_informative=5,n_clusters_per_class=1)

df = pd.DataFrame(X,columns=['col1','col2','col3','col4','col5'])
df['target'] = y
print(df.shape)
df.head()
```

```
(100, 6)
```

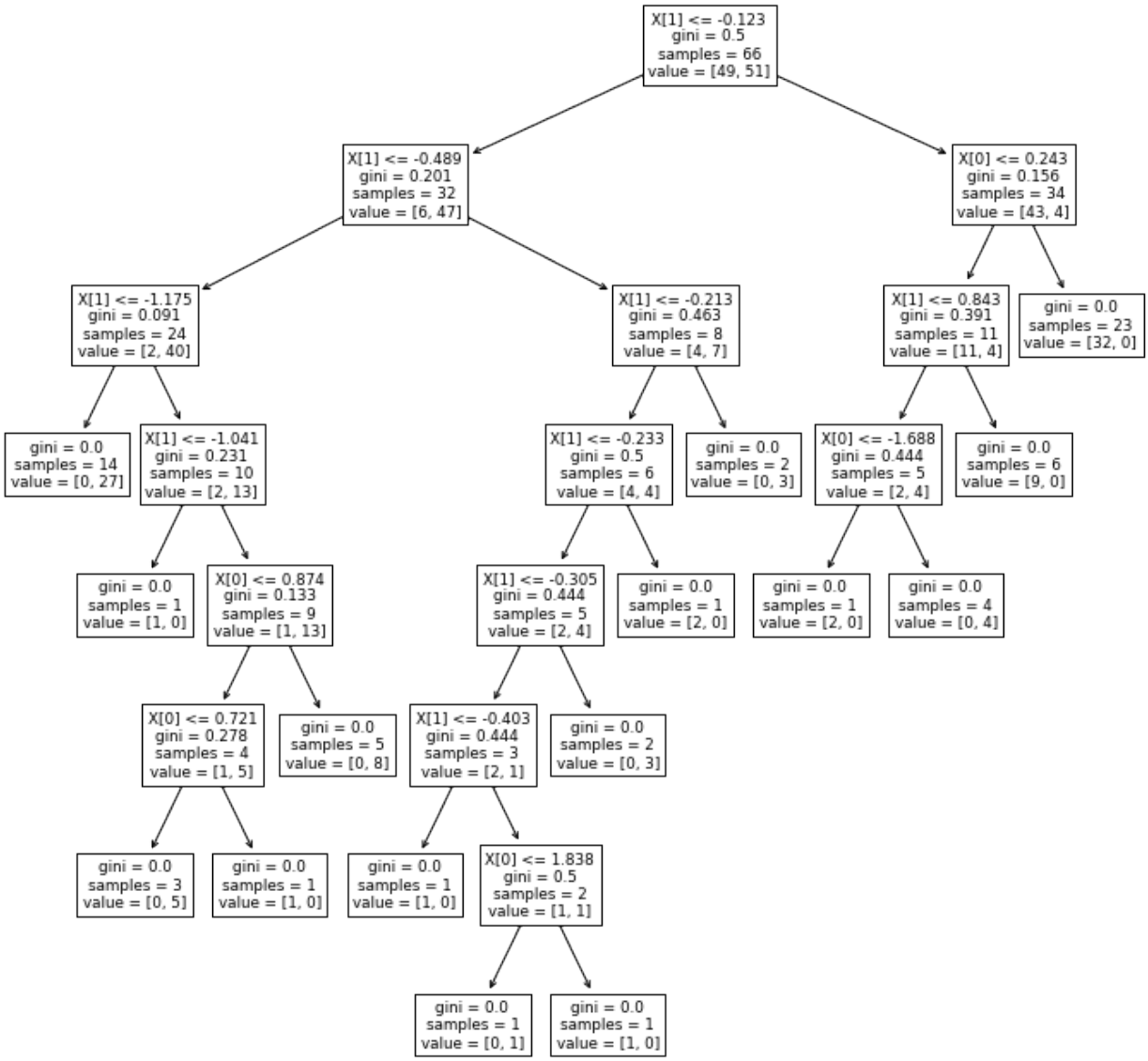
	col1	col2	col3	col4	col5	target
0	0.909543	-0.106691	1.670528	-0.757393	0.719450	0
1	0.110632	-0.453240	2.187968	-0.701946	0.129855	0
2	-1.937132	-0.919501	0.892775	1.143991	-0.239039	1
3	3.719366	3.021129	-1.907133	-0.006832	2.674378	0
4	2.122679	3.480089	0.358837	1.516227	0.935520	0

```
bag = BaggingClassifier(max_features=2)

bag.fit(df.iloc[:,:5],df.iloc[:,-1])
```

```
BaggingClassifier(base_estimator=None, bootstrap=True,
bootstrap_features=False,
                  max_features=2, max_samples=1.0, n_estimators=10,
n_jobs=None,
                  oob_score=False, random_state=None, verbose=0,
                  warm_start=False)

plt.figure(figsize=(12,12))
plot_tree(bag.estimators_[0])
plt.show()
```




```
rf = RandomForestClassifier(max_features=2)

rf.fit(df.iloc[:,:5],df.iloc[:,-1])

RandomForestClassifier(bootstrap=True, ccp_alpha=0.0,
class_weight=None,
                       criterion='gini', max_depth=None,
max_features=2,
                       max_leaf_nodes=None, max_samples=None,
                       min_impurity_decrease=0.0,
min_impurity_split=None,
                       min_samples_leaf=1, min_samples_split=2,
                       min_weight_fraction_leaf=0.0, n_estimators=100,
```

```
                           n_jobs=None, oob_score=False,
random_state=None,
                           verbose=0, warm_start=False)

plt.figure(figsize=(12,12))
plot_tree(rf.estimators_[4])
plt.show()
```