**使用决策树分类方法对鸢尾花数据集进行分类**

**源代码：**

import pandas as pd

from sklearn.datasets import load\_iris

iris = load\_iris()

iris\_df = pd.DataFrame(iris.data, index = iris.target, columns = iris.feature\_names)

from sklearn.model\_selection import train\_test\_split

X\_train, X\_test, y\_train, y\_test = train\_test\_split(iris\_df, iris.target, train\_size = 0.55)

#使用决策树分类方法对鸢尾花数据集进行分类

from sklearn.tree import DecisionTreeClassifier

tree = DecisionTreeClassifier()

tree.fit(X\_train, y\_train)

y\_predict = tree.predict(X\_test)

from sklearn.metrics import classification\_report, accuracy\_score, confusion\_matrix

print('决策树Accracy：',accuracy\_score(y\_predict, y\_test))

print('决策树混淆矩阵\n',confusion\_matrix(y\_test, y\_predict))

print('决策树分类性能报告\n',classification\_report(y\_predict, y\_test, target\_names=['setosa', 'versicolor', 'virginica']))

**运行（测试）过程及结果：**

