**Exp15 :Write the python program to implement Decision Tree**

**Input:**

from sklearn import tree

X = [

    [0, 0, 0, 0],

    [0, 0, 0, 1],

    [1, 0, 0, 0],

    [2, 1, 0, 0],

    [2, 2, 1, 0],

    [2, 2, 1, 1],

    [1, 2, 1, 1],

    [0, 1, 0, 0],

    [0, 2, 1, 0],

    [2, 1, 1, 0],

    [0, 1, 1, 1],

    [1, 1, 0, 1],

    [1, 0, 1, 0],

    [2, 1, 0, 1]

]

y = [0, 0, 1, 1, 1, 0, 1, 0, 1, 1, 1, 1, 1, 0]

clf = tree.DecisionTreeClassifier()

clf = clf.fit(X, y)

sample = [[0, 1, 1, 0]]

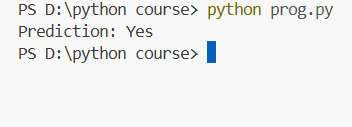
prediction = clf.predict(sample)

print("Prediction:", "Yes" if prediction[0] == 1 else "No")

tree.plot\_tree(clf, feature\_names=["Outlook", "Temp", "Humidity", "Windy"],

               class\_names=["No", "Yes"], filled=True)

**output:**

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