import matplotlib.pyplot as plt

import pandas

from sklearn import tree

from sklearn.tree import DecisionTreeClassifier

import matplotlib.pyplot as plt

df = pandas.read\_excel("/content/decision tree.xlsx")

print(df)

OUTPUT:

Age Experience Rank Nationality Go

0 36 10 9 UK NO

1 42 12 4 USA NO

2 23 4 6 N NO

3 52 4 4 USA NO

4 43 21 8 USA YES

5 44 14 5 UK NO

6 66 3 7 N YES

7 35 14 9 UK YES

8 52 13 7 N YES

9 35 5 9 N YES

10 24 3 5 USA NO

11 18 3 7 UK YES

12 45 9 9 UK YES

d = {'UK': 0, 'USA': 1, 'N': 2}

df['Nationality'] = df['Nationality'].map(d)

d = {'YES': 1, 'NO': 0}

df['Go'] = df['Go'].map(d)

features = ['Age', 'Experience', 'Rank', 'Nationality']

X = df[features]

y = df['Go']

dtree = DecisionTreeClassifier()

dtree = dtree.fit(X, y)

tree.plot\_tree(dtree, feature\_names=features)

OUTPUT:

