```
import matplotlib.pyplot as pit
import pandas
from sklearn import tree
from sklearn.tree import DecisionTreeClassifier
import matplotlib.pyplot as plt
import pandas as pd
```

```
data = {
    'Age': [25, 30, 35, 40, 45],
    'Experience': [1, 3, 5, 7, 10],
    'Rank': [5, 4, 3, 2, 1],
    'Nationality': ['UK', 'USA', 'UK', 'N', 'USA'],
    'Go': ['YES', 'NO', 'YES', 'NO', 'YES']
}
df = pd.DataFrame(data)
```

```
df.to_csv('data.csv')
print(df)
```

```
   Age  Experience  Rank Nationality   Go
0   25           1     5          UK  YES
1   30           3     4         USA   NO
2   35           5     3          UK  YES
3   40           7     2           N   NO
4   45          10     1         USA  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)
plt.show()
```