```
import pandas as pd
df=pd.read_csv("/content/drive/MyDrive/AIT322-ML/weather_play.csv")
print(df.shape)
df.head()
```

```
X = df.drop('play',axis='columns')
y=df['play']
y
```

```
0      no
1      no
2     yes
3     yes
4     yes
5      no
6     yes
7      no
8     yes
9     yes
10    yes
11    yes
12    yes
13     no
Name: play, dtype: object
```

```
from sklearn.preprocessing import LabelEncoder
le_outlook = LabelEncoder()
le_temp = LabelEncoder()
le_humi = LabelEncoder()
le_windy = LabelEncoder()
```

```
X['outlook_n'] = le_outlook.fit_transform(X['outlook'])
X['temperature_n'] = le_temp.fit_transform(X['temperature'])
X['humidity_n'] = le_humi.fit_transform(X['humidity'])
X['windy_n'] = le_windy.fit_transform(X['windy'])
```

```
"""
le = preprocessing.LabelEncoder()
X = X.apply(le.fit_transform)
"""
```

```
X
```

```
X_n = X.drop(['outlook','temperature','humidity','windy'],axis='columns')
```

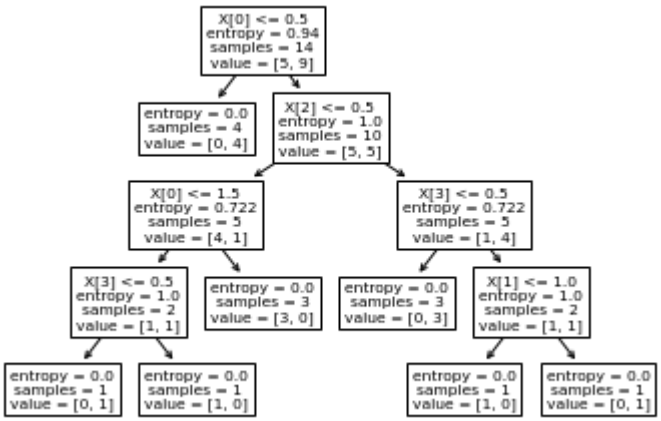
```
from sklearn import tree
model = tree.DecisionTreeClassifier(criterion='entropy')
model.fit(X_n, y)
model.score(X_n,y)
```

```
1.0
```

```
model.predict([[0,1,1,0]])
```

```
/usr/local/lib/python3.7/dist-packages/sklearn/base.py:451: UserWarning: X does not h
  "X does not have valid feature names, but"
array(['yes'], dtype=object)
```

```
tree.plot_tree(model);
```



✓ 1s completed at 5:01 PM