#!/usr/bin/env python

# coding: utf-8

# In[ ]:

# In[26]:

from sklearn.tree import DecisionTreeClassifier

from sklearn.metrics import accuracy\_score

from sklearn import tree

from sklearn.preprocessing import LabelEncoder

import pandas as pd

import numpy as np

# In[27]:

df = pd.read\_csv('D://ML//play\_tennis.csv')

# In[28]:

print(df)

# In[44]:

lb = LabelEncoder()

df['outlook'] = lb.fit\_transform(df['outlook'])

df['temp'] = lb.fit\_transform(df['temp'] )

df['humidity'] = lb.fit\_transform(df['humidity'] )

df['wind'] = lb.fit\_transform(df['wind'] )

df['play'] = lb.fit\_transform(df['play'] )

print(df)

X = df.iloc[:,1:5]

print(X)

Y = df.iloc[:,5]

print(Y)

# In[45]:

clf\_entropy = DecisionTreeClassifier(criterion='entropy')

# In[46]:

dtree=clf\_entropy.fit(X, Y)

# In[47]:

from sklearn.externals.six import StringIO

from IPython.display import Image

from sklearn.tree import export\_graphviz

import pydotplus

dot\_data = StringIO()

export\_graphviz(dtree, out\_file=dot\_data,

filled=True, rounded=True,

special\_characters=True)

graph = pydotplus.graph\_from\_dot\_data(dot\_data.getvalue())

Image(graph.create\_png())

# In[ ]: