In [1]:

```
# Assigning features and label variables

# First Feature
weather=['Sunny','Sunny','Overcast','Rainy','Rainy','Rainy','Overcast','Sunny','Sunny',
'Rainy','Sunny','Overcast','Overcast','Rainy']

# Second Feature
temp=['Hot','Hot','Hot','Mild','Cool','Cool','Cool','Mild','Cool','Mild','Mild','Mild','Hot

# Label or target varible
play=['No','No','Yes','Yes','Yes','No','Yes','No','Yes','Yes','Yes','Yes','Yes','No']
```

In [2]:

```
# Import LabelEncoder
from sklearn import preprocessing

#creating labelEncoder
le = preprocessing.LabelEncoder()

# Converting string labels into numbers.
weather_encoded=le.fit_transform(weather)

print(weather_encoded)
```

```
[2 2 0 1 1 1 0 2 2 1 2 0 0 1]
```

In [3]:

```
# converting string labels into numbers
temp_encoded=le.fit_transform(temp)

label=le.fit_transform(play)
```

In [4]:

```
print(label)
```

```
[0 0 1 1 1 0 1 0 1 1 1 1 1 0]
```

In [5]:

```
#combinig weather and temp into single listof tuples
features=list(zip(weather_encoded,temp_encoded))
```

In [6]:

```
from sklearn.neighbors import KNeighborsClassifier

model = KNeighborsClassifier(n_neighbors=3)

# Train the model using the training sets
model.fit(features,label)

#Predict Output
predicted= model.predict([[0,2]]) # 0:Overcast, 2:Mild
print(predicted)
```

```
[1]
```