

```
In [15]: #Import the necessary Libraries
from sklearn.datasets import load_iris
import pandas as pd
```

```
In [16]: #Load the dataset and seperated the features and Targets
tennis = pd.read_csv('P3_cleaning.csv')
X=tennis.iloc[:,0:4]
y=tennis.iloc[:,4:5]
print("FEATURES")
print(X)
print("TARGET")
print(y)
```

FEATURES

	outlook	temperature	humidity	wind
0	sunny	hot	high	weak
1	sunny	hot	high	strong
2	overcast	hot	high	weak
3	rain	mild	high	weak
4	rain	cool	normal	weak
5	rain	cool	normal	strong
6	overcast	cool	normal	strong
7	sunny	mild	high	weak
8	sunny	cool	normal	weak
9	rain	mild	normal	weak
10	sunny	mild	normal	strong
11	overcast	mild	high	strong
12	overcast	hot	normal	weak
13	rain	mild	high	strong

TARGET

	play
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

```
In [18]: #Data Cleaning - Features(Ordinal encoder) and Targets(Label encoder)
from sklearn.preprocessing import OrdinalEncoder, LabelEncoder
ordinal_encoder = OrdinalEncoder() # for cleaning the features
label_encode = LabelEncoder()     # for cleaning the targets

X_ordinal_encoded= ordinal_encoder.fit_transform(X)
print("features\n" , X_ordinal_encoded)
y_label_encoded = label_encode.fit_transform(y.values.ravel())
print("Target\n", y_label_encoded)
```

features

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

Target

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