

## ▼ Decision Tree Classification

### ▼ Importing the libraries

```
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

### ▼ Importing the dataset

```
dataset = pd.read_csv('wineq.csv')
X = dataset.iloc[:, :-1].values
y = dataset.iloc[:, -1].values
```

### ▼ Splitting the dataset into the Training set and Test set

```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.1, random_state
```

### ▼ Feature Scaling

```
from sklearn.preprocessing import StandardScaler
sc = StandardScaler()
X_train = sc.fit_transform(X_train)
X_test = sc.transform(X_test)
```

### ▼ Training the Decision Tree Classification model on the Training set

```
from sklearn.tree import DecisionTreeClassifier
classifier = DecisionTreeClassifier(criterion = 'entropy', random_state = 0)
classifier.fit(X_train, y_train)
```

▼ DecisionTreeClassifier

```
DecisionTreeClassifier(criterion='entropy', random_state=0)
```

## \_ Predicting the Test set results

```
y_pred = classifier.predict(X_test)
```

## \_ Evaluating Performance

```
from sklearn.metrics import accuracy_score  
print(f"Accuracy: {(accuracy_score(y_test, y_pred))*100}%")
```

```
Accuracy: 65.0%
```