

```
In [1]: # Importing libraries
import numpy as np
from sklearn import datasets
from sklearn.ensemble import RandomForestClassifier
from sklearn.model_selection import train_test_split
```

```
In [2]: data = datasets.load_wine()
X, y = np.array(data['data']), np.array(data['target'])
```

```
In [3]: # Splitting to train and test dataset
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.20, random_state = 42)
```

```
In [4]: clf = RandomForestClassifier(max_depth=2, random_state=0)
```

```
In [5]: clf.fit(X_train, y_train)
```

```
Out[5]: RandomForestClassifier(bootstrap=True, class_weight=None,
                                criterion='gini',
                                max_depth=2, max_features='auto', max_leaf_nodes=None,
                                min_impurity_decrease=0.0, min_impurity_split=None,
                                min_samples_leaf=1, min_samples_split=2,
                                min_weight_fraction_leaf=0.0, n_estimators=10, n_jobs=1,
                                oob_score=False, random_state=0, verbose=0,
                                warm_start=False)
```

```
In [6]: print("Train accuracy : ", clf.score(X_train, y_train))
Train accuracy : 0.9647887323943662
```

```
In [7]: count = 0
for x, y in zip(X_test, y_test):
    if clf.predict([x]) == y:
        count += 1
print("Test accuracy : ", count / len(y_test))
Test accuracy : 0.9166666666666666
```