

```
from sklearn.datasets import load_iris
iris = load_iris()
dir(iris)
```

```
['DESCR', 'data', 'feature_names', 'filename', 'target', 'target_names']
```

```
import pandas as pd
df = pd.DataFrame(iris.data, columns=iris.feature_names)
df.head()
```

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)
<b>0</b>	5.1	3.5	1.4	0.2
<b>1</b>	4.9	3.0	1.4	0.2
<b>2</b>	4.7	3.2	1.3	0.2
<b>3</b>	4.6	3.1	1.5	0.2
<b>4</b>	5.0	3.6	1.4	0.2

```
df['target'] = iris.target
df.head()
```

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	target
<b>0</b>	5.1	3.5	1.4	0.2	0
<b>1</b>	4.9	3.0	1.4	0.2	0
<b>2</b>	4.7	3.2	1.3	0.2	0
<b>3</b>	4.6	3.1	1.5	0.2	0
<b>4</b>	5.0	3.6	1.4	0.2	0

```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(df.drop(['target'],axis='columns'),iris.t
```

```
from sklearn.ensemble import RandomForestClassifier
model = RandomForestClassifier()
model.fit(X_train, y_train)
```

```
RandomForestClassifier(bootstrap=True, ccp_alpha=0.0, class_weight=None,
                        criterion='gini', max_depth=None, max_features='auto',
                        max_leaf_nodes=None, max_samples=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=100,  
n_jobs=None, oob_score=False, random_state=None,  
verbose=0, warm_start=False)
```

```
model.score(X_test,y_test)
```

```
0.9333333333333333
```

```
model = RandomForestClassifier(n_estimators=40)
```

```
model.fit(X_train, y_train)
```

```
model.score(X_test,y_test)
```

```
0.9333333333333333
```

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