

Train Test and Save model

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Step1 – Import the library

We have imported model_selection, datasets, DecisionTreeClassifier which will be needed for the dataset.

```
from sklearn import
model_selection, datasets
from sklearn.tree import
DecisionTreeClassifier
from sklearn.externals import
joblib
import pickle
```

Step 2- Setting up the Data

we have loaded inbuilt wine dataset and stored data in x and target in y.

```
dataset = datasets.load_wine( )
x = dataset.data; y =
dataset.target
x_train, x_test, y_train, y_test
= model_selection.train_test_split(x, y, test_size=0.3)
y, test_size=0.3)
```

Step 3-Training and saving the model

We are using DecisionTreeClassifier as a model. We have trained the model by training data.

```
model = DecisionTreeClassifier( )
```

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

```
filename =
```

```
“completed_model.joblib”
```

```
joblib.dump(model, filename)
```

Step 3-Loading the saved model

We are loading the saved model by using joblib. Load & after loading the model we have used score to get the score of pretrained saved model.

```
loaded_model =
```

```
joblib.load(filename)
```

```
result =
```

```
loaded_model.score(x_test, y_test)
```

```
print(result)
```

so the output comes as:

```
0.9444444444444444
```