Model Building

Train Test And Save Model

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Train Test and Save Model:-

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Step 1 – Import the library

```
From sklearn import model_selection, datasets

From sklearn.tree import DecisionTreeClassifier

From sklearn.externals import joblib

Import pickle
```

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

Step 2 – Setting up the Data

We have loaded inbuilt wine dataset and stored data in x and target in y. We have used test_train_split to split the dataset such that 30% of data is for testing the model.

```
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)
```

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Step 3 – Training and Saving the Model

We are using DecisionTreeClassifier as a model. We have trained the model by training data. We can save the model by using joblib.dump in which we have passed the parameter as model and the filename.

```
Model = DecisionTreeClassifier()
Model.fit(X_train, y_train)
Filename = “Completed_model.joblib”
```

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

Step 4 – Loading the Saved Model

So here we are loading the saved model by using joblib.load and after loading the model we have used score to get the score of the 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