```
# Import scikit-learn dataset library
from sklearn import datasets

# Load dataset
iris = datasets.load_iris()

# Print the label species (setosa, versicolor, virginica)
print(iris.target_names)

# Print the names of the four features
print(iris.feature_names)

# Print the iris data (top 5 records)
print(iris.data[0:5])

# Print the iris labels (0:setosa, 1:versicolor, 2:virginica)
print(iris.target)

# Creating a DataFrame of the given iris dataset
import pandas as pd

data = pd.DataFrame({
    'sepal length': iris.data[:, 0],
    'sepal width': iris.data[:, 1],
    'petal length': iris.data[:, 2],
    'petal width': iris.data[:, 3],
    'species': iris.target
})

# Print the first few rows of the DataFrame
print(data.head())

# Import train_test_split function
from sklearn.model_selection import train_test_split

# Features and labels
X = data[['sepal length', 'sepal width', 'petal length', 'petal
width']] # Features
y = data['species'] # Labels

# Split dataset into training set and test set
X_train, X_test, y_train, y_test = train_test_split(X, y,
test_size=0.3) # 70% training and 30% test

# Import Random Forest Model
from sklearn.ensemble import RandomForestClassifier

# Create a RandomForestClassifier
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```
clf = RandomForestClassifier(n_estimators=100)

# Train the model using the training sets
clf.fit(X_train, y_train)

# Predict the response for test dataset
y_pred = clf.predict(X_test)

# Import scikit-learn metrics module for accuracy calculation
from sklearn import metrics

# Confusion matrix
confusion_matrix = metrics.confusion_matrix(y_test, y_pred)
print("Confusion Matrix:")
print(confusion_matrix)

# Model Accuracy: how often is the classifier correct?
print("Accuracy:", metrics.accuracy_score(y_test, y_pred))
```

```
['setosa' 'versicolor' 'virginica']
['sepal length (cm)', 'sepal width (cm)', 'petal length (cm)', 'petal
width (cm)']
[[5.1 3.5 1.4 0.2]
 [4.9 3.  1.4 0.2]
 [4.7 3.2 1.3 0.2]
 [4.6 3.1 1.5 0.2]
 [5.  3.6 1.4 0.2]]
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0
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2 2
 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
2 2
 2 2]
   sepal length  sepal width  petal length  petal width  species
0           5.1          3.5           1.4          0.2        0
1           4.9          3.0           1.4          0.2        0
2           4.7          3.2           1.3          0.2        0
3           4.6          3.1           1.5          0.2        0
4           5.0          3.6           1.4          0.2        0
Confusion Matrix:
[[15  0  0]
 [ 0 20  1]
 [ 0  3  6]]
Accuracy: 0.9111111111111111
```