```
import pandas as pd
from sklearn import datasets
iris = datasets.load_iris()
```

```
print(iris.target_names)
print(iris.feature_names)
print(iris.target_names)
print(iris.feature_names)
```

```
['setosa' 'versicolor' 'virginica']
['sepal length (cm)', 'sepal width (cm)', 'petal length (cm)', 'petal width (cm)']
['setosa' 'versicolor' 'virginica']
['sepal length (cm)', 'sepal width (cm)', 'petal length (cm)', 'petal width (cm)']
```

```
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
})
```

```
data.head
```

```
<bound method NDFrame.head of      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
..            ...          ...           ...          ...      ...
145           6.7          3.0           5.2          2.3        2
146           6.3          2.5           5.0          1.9        2
147           6.5          3.0           5.2          2.0        2
148           6.2          3.4           5.4          2.3        2
149           5.9          3.0           5.1          1.8        2

[150 rows x 5 columns]>
```

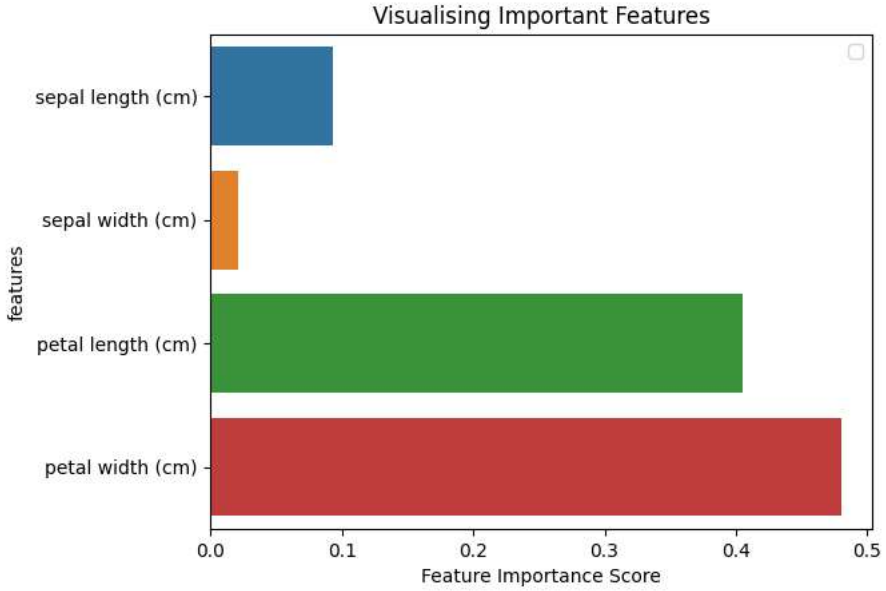
```
from sklearn.model_selection import train_test_split
x=data[['sepal length','sepal width','petal length','petal width']]
y=data['species']
x_train, x_test, y_train, y_test = train_test_split(x,y,test_size=0.3)
```

```
from sklearn.ensemble import RandomForestClassifier
clf=RandomForestClassifier(n_estimators=100)
clf.fit(x_train,y_train)
y_pred=clf.predict(x_test)
from sklearn import metrics
print("Accuracy : ",metrics.accuracy_score(y_test,y_pred))
import pandas as pd
feature_imp = pd.Series(clf.feature_importances_,index=iris.feature_names)
feature_imp
```

```
Accuracy :  0.9555555555555556
sepal length (cm)    0.093516
sepal width (cm)     0.021344
petal length (cm)    0.405131
petal width (cm)     0.480009
dtype: float64
```

```
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
sns.barplot(x=feature_imp, y=feature_imp.index)
plt.xlabel('Feature Importance Score')
plt.ylabel('features')
plt.title("Visualising Important Features")
plt.legend()
plt.show()
```

```
WARNING:matplotlib.legend:No artists with labels found to put in legend.  Note that arti
```



```
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```
Accuracy :  0.9555555555555556
```