

```
In [7]: from sklearn.datasets import load_iris
iris = load_iris()

from sklearn.model_selection import train_test_split
splits = train_test_split(iris.data,
                           iris.target,
                           test_size=0.2)

train_data, test_data, train_labels, test_labels = splits
```

```
In [8]: #scaling the data
from sklearn.preprocessing import StandardScaler
scaler = StandardScaler()
scaler.fit(train_data)

train_data = scaler.transform(train_data)
test_data = scaler.transform(test_data)
```

```
In [16]: from sklearn.neural_network import MLPClassifier
mlp = MLPClassifier(hidden_layer_sizes=(4, 10), max_iter=1000)
mlp.fit(train_data, train_labels)
```

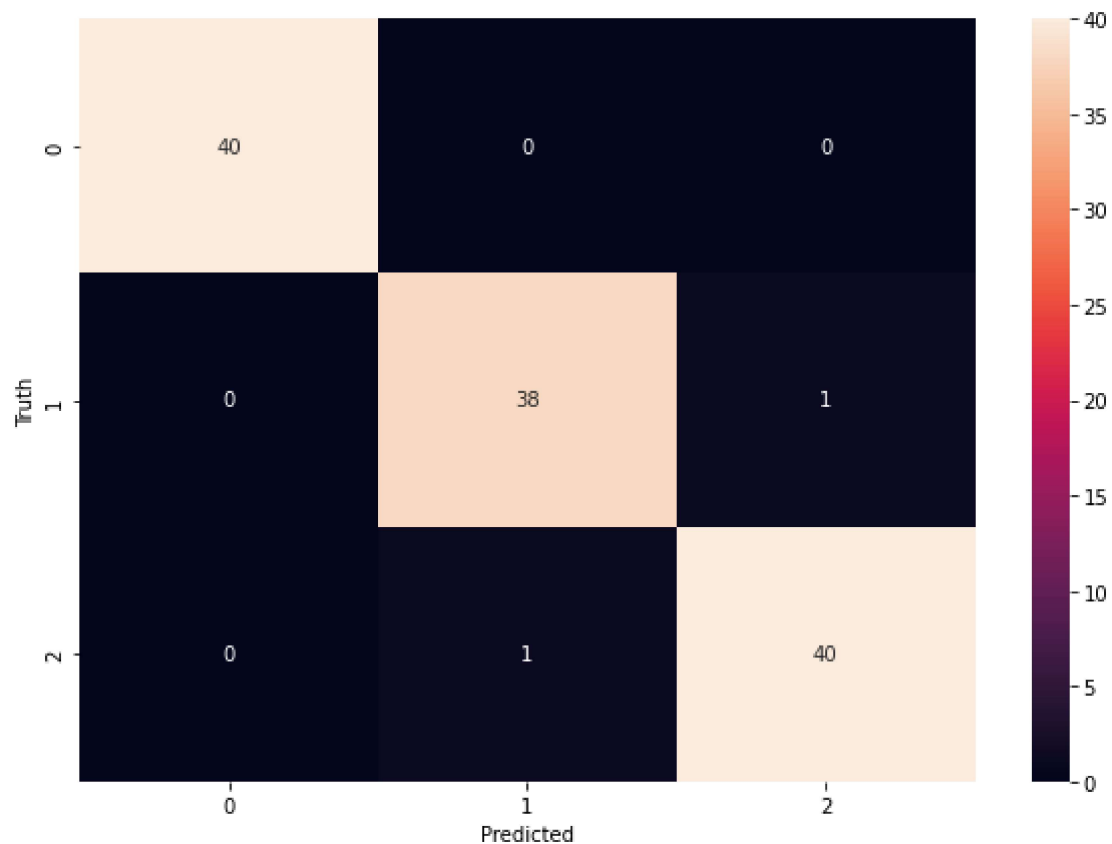
```
Out[16]: MLPClassifier(hidden_layer_sizes=(4, 10), max_iter=1000)
```

```
In [21]: from sklearn.metrics import accuracy_score
predictions_train = mlp.predict(train_data)
predictions_test = mlp.predict(test_data)

from sklearn.metrics import confusion_matrix
cm = confusion_matrix(predictions_train, train_labels)

import matplotlib.pyplot as plt
import seaborn as sn
plt.figure(figsize=(10,7))
sn.heatmap(cm, annot=True)
plt.xlabel('Predicted')
plt.ylabel('Truth')
```

Out[21]: Text(69.0, 0.5, 'Truth')



In []: