In [1]:
```python
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import StandardScaler
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import accuracy_score, confusion_matrix
iris = load_iris()
X = iris.data
y = iris.target
X_train, X_test, y_train, y_test = train_test_split(X, y,
                         test_size=0.3, random_state=0)

scaler = StandardScaler()
X_train = scaler.fit_transform(X_train)
X_test = scaler.transform(X_test)

knn = KNeighborsClassifier(n_neighbors=3)
knn.fit(X_train, y_train)
y_pred = knn.predict(X_test)
accuracy = accuracy_score(y_test, y_pred)
confusion = confusion_matrix(y_test, y_pred)
print("Accuracy:", accuracy)
print("Confusion matrix:\n", confusion)
```

```
Accuracy: 0.9777777777777777
Confusion matrix:
 [[16  0  0]
 [ 0 17  1]
 [ 0  0 11]]
```

```
C:\Users\SRAVA\anaconda3\lib\site-packages\sklearn\neighbors\_classification.py:22
8: FutureWarning: Unlike other reduction functions (e.g. `skew`, `kurtosis`), the
default behavior of `mode` typically preserves the axis it acts along. In SciPy 1.
11.0, this behavior will change: the default value of `keepdims` will become Fals
e, the `axis` over which the statistic is taken will be eliminated, and the value
None will no longer be accepted. Set `keepdims` to True or False to avoid this war
ning.
  mode, _ = stats.mode(_y[neigh_ind, k], axis=1)
```

In [ ]: