In [9]:
```
# Importing necessary libraries
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.tree import DecisionTreeClassifier
from sklearn.metrics import accuracy_score
```

In [10]:
```
# Load the Iris dataset
iris = load_iris()
X = iris.data
y = iris.target
```

In [11]:
```
# Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=42
```

In [12]:
```
# Initialize Decision Tree classifier
clf = DecisionTreeClassifier()
```

In [13]:
```
# Train the classifier
clf.fit(X_train, y_train)
```

Out[13]:
```
▼ DecisionTreeClassifier

DecisionTreeClassifier()
```

In [16]:
```
# Make predictions
y_pred = clf.predict(X_test)
```

In [17]:
```
# Calculate accuracy
accuracy = accuracy_score(y_test, y_pred)
```

In [18]:
```
# Output the accuracy
print("Accuracy:", accuracy)
```

```
Accuracy: 1.0
```

In [24]:
```
import pandas as pd
df=pd.DataFrame(data=pd.read_csv('iris.csv'))
```

In [25]:
```
# Display first 5 records
print("\nFirst 5 records:")
print(df.head())
```

```
First 5 records:
   sepal.length  sepal.width  petal.length  petal.width variety
0           5.1          3.5           1.4          0.2  Setosa
1           4.9          3.0           1.4          0.2  Setosa
2           4.7          3.2           1.3          0.2  Setosa
3           4.6          3.1           1.5          0.2  Setosa
4           5.0          3.6           1.4          0.2  Setosa
```

In [26]:
```
# Display last 5 records
print("\nLast 5 records:")
print(df.tail())
```

```
Last 5 records:
     sepal.length  sepal.width  petal.length  petal.width    variety
145           6.7          3.0           5.2          2.3  Virginica
146           6.3          2.5           5.0          1.9  Virginica
147           6.5          3.0           5.2          2.0  Virginica
148           6.2          3.4           5.4          2.3  Virginica
149           5.9          3.0           5.1          1.8  Virginica
```

In [27]:

```
# Display random 5 records
print("\nRandom 5 records:")
print(df.sample(n=5))
```

```
Random 5 records:
     sepal.length  sepal.width  petal.length  petal.width     variety
84            5.4          3.0           4.5          1.5  Versicolor
148           6.2          3.4           5.4          2.3   Virginica
33            5.5          4.2           1.4          0.2      Setosa
80            5.5          2.4           3.8          1.1  Versicolor
112           6.8          3.0           5.5          2.1   Virginica
```

In [ ]: