## **Hierarchical Clustering of Iris Dataset Attributes**

This Python script performs hierarchical clustering on the attributes of the Iris dataset. The data is transposed to allow clustering of columns (attributes), and a dendrogram is plotted to visualize the clustering.

## **Python Code**

```
import scipy.cluster.hierarchy as sch
from sklearn.datasets import load_iris
import pandas as pd
import matplotlib.pyplot as plt
# Load the Iris dataset
iris = load_iris()
df = pd.DataFrame(data=iris.data, columns=iris.feature_names)
# Perform hierarchical clustering on attributes (columns)
linked = sch.linkage(df.T, method='ward')
# Plot the dendrogram
plt.figure(figsize=(8, 5))
sch.dendrogram(linked, labels=df.columns)
plt.title('Hierarchical Clustering of Iris Attributes')
plt.ylabel('Distance')
plt.tight_layout()
plt.show()
```

## **Dendrogram Output**

