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import pandas as pd
from sklearn.datasets import load_iris
from sklearn.preprocessing import StandardScaler
from sklearn.cluster import KMeans
import seaborn as sns
import matplotlib.pyplot as plt

# Load the Iris dataset
iris = load_iris()

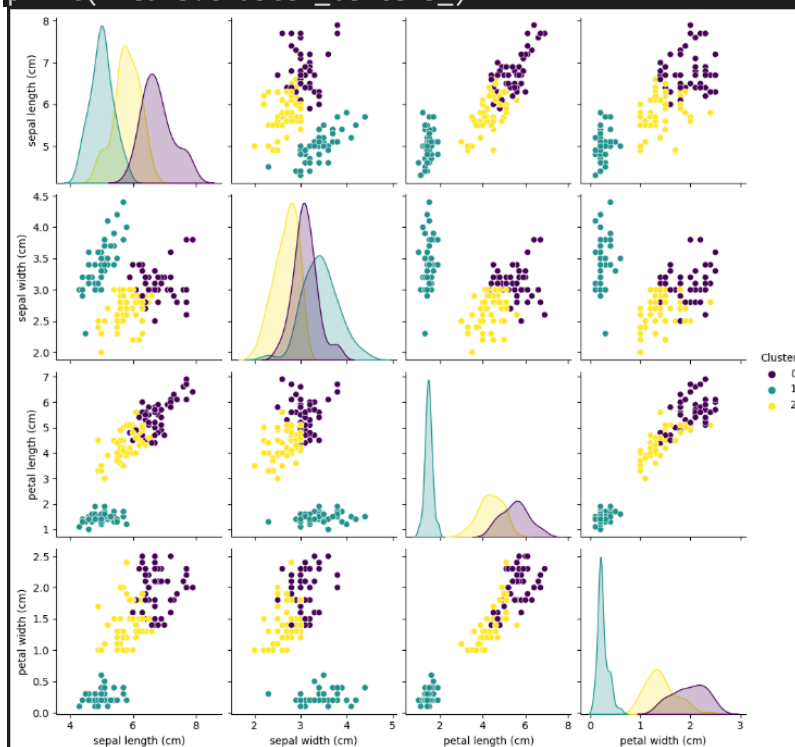
iris_df = pd.DataFrame(iris.data, columns=iris.feature_names)
# Standardize the data
scaler = StandardScaler()
iris_scaled = scaler.fit_transform(iris_df)

# Run K-means clustering
kmeans = KMeans(n_clusters=3, random_state=42)
iris_df['Cluster'] = kmeans.fit_predict(iris_scaled)

# Visualize the clusters
sns.pairplot(iris_df, hue='Cluster', palette='viridis')
plt.show()

# Inspect cluster centers
print("Cluster Centers:")
print(kmeans.cluster_centers_)

```



```

Cluster Centers:
[ 1.13597827  0.08842168  0.99615451  1.01752612]
[-1.01457897  0.85326268 -1.30498732 -1.25489349]
[-0.85021989 -0.88337647  0.34773781  0.2815273 ]

```