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In [3]: # Step 1: Import required libraries
import pandas as pd
from sklearn.model_selection import train_test_split

# Step 2: Load your dataset using pd.read_csv()
# Replace 'iris_dataset (1).csv' with your actual CSV file path
df = pd.read_csv('iris_dataset (1).csv')

# Step 3: Display the first few rows to understand the dataset structure
df.head() # Preview the dataset to see the columns and data
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Out[3]:
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	sepal_length	sepal_width	petal_length	petal_width	species
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 [5]: # Step 4: Separate features (X) and target (y)
X = df.drop(columns=['species']) # Features (inputs)
y = df['species'] # Target (labels)

# Step 5: Split the dataset (80% training, 20% testing)
X_train, X_test, y_train, y_test = train_test_split(
    X, y, test_size=0.2, random_state=42
)

# Step 6: Print the shape of the resulting splits
print("Shape of training features:", X_train.shape)
print("Shape of testing features:", X_test.shape)
print("Shape of training labels:", y_train.shape)
print("Shape of testing labels:", y_test.shape)
```

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Shape of training features: (120, 4)
Shape of testing features: (30, 4)
Shape of training labels: (120,)
Shape of testing labels: (30,)
```

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In [ ]:
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