```
#Import necessary libraries
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
import pandas as pd
# Load the Iris dataset
iris = load_iris()
df = pd.DataFrame(data=iris.data, columns=iris.feature_names)
df['target'] = iris.target
# Display the first five rows
print("First Five Rows:")
print(df.head())
# Display the dataset's shape
print("\nDataset Shape:")
print(df.shape)
# Display summary statistics for each feature
print("\nSummary Statistics:")
print(df.describe())
# Split the Iris dataset into training and testing sets
X = df.drop('target', axis=1)
y = df['target']
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
# Print the number of samples in both the training and testing sets
print("\nTraining Set Size:", X_train.shape[0])
print("Testing Set Size:", X_test.shape[0])
```

output: First Five Rows:

sepal length (cm) sepal width (cm) petal length (cm) petal width (cm) \

0	5.1	3.5	1.4	0.2
1	4.9	3.0	1.4	0.2
2	4.7	3.2	1.3	0.2
3	4.6	3.1	1.5	0.2
4	5.0	3.6	1.4	0.2

target

0 0

1 0

2 0

3 0

4 0

Dataset Shape:

(150, 5)

Summary Statistics:

sepal length (cm) sepal width (cm) petal length (cm) \

count	150.000000	150.000000	150.000000
mean	5.843333	3.057333	3.758000
std	0.828066	0.435866	1.765298
min	4.300000	2.000000	1.000000
25%	5.100000	2.800000	1.600000
50%	5.800000	3.000000	4.350000
75%	6.400000	3.300000	5.100000
max	7.900000	4.400000	6.900000

petal width (cm) target

count 150.000000 150.000000

mean	1.199333	1.000000
std	0.762238	0.819232
min	0.100000	0.000000
25%	0.300000	0.000000
50%	1.300000	1.000000
75%	1.800000	2.000000
max	2.500000	2.000000

Training Set Size: 120

Testing Set Size: 30