```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.datasets import load_iris
```

```python
iris = load_iris()
df = pd.DataFrame(data=np.c_[iris['data'], iris['target']],
                  columns=iris['feature_names'] + ['target'])
```

```python
print(df.info())
print("\nFirst few rows of the dataset:")
print(df.head())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
 #   Column             Non-Null Count  Dtype  
---  ------             --------------  -----  
 0   sepal length (cm)  150 non-null    float64
 1   sepal width (cm)   150 non-null    float64
 2   petal length (cm)  150 non-null    float64
 3   petal width (cm)   150 non-null    float64
 4   target             150 non-null    float64
dtypes: float64(5)
memory usage: 6.0 KB
None

First few rows of the dataset:
   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     0.0  
1     0.0  
2     0.0  
3     0.0  
4     0.0
```

```python
print("\nSummary statistics:")
print(df.describe())
```

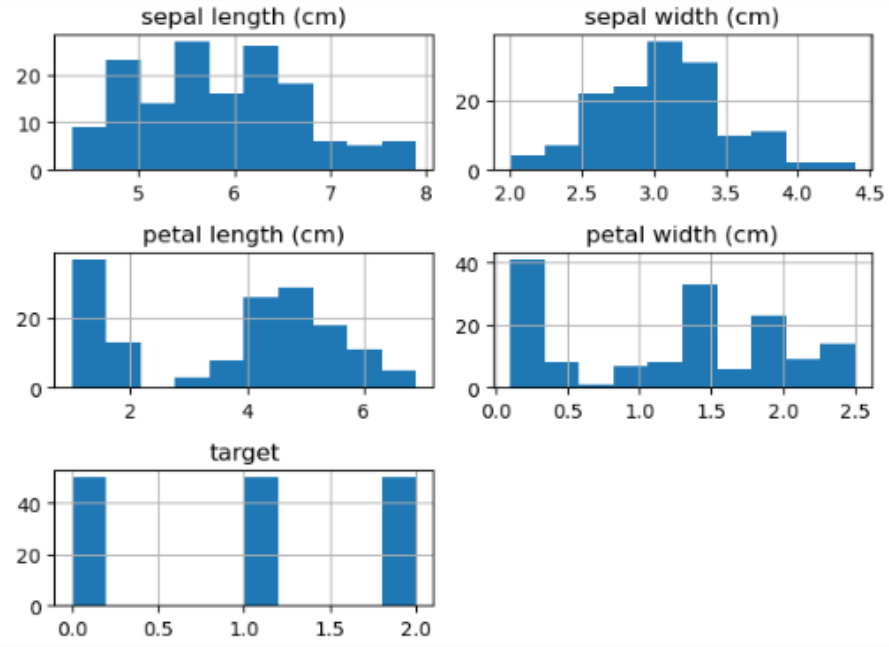
```
Summary statistics:
       sepal length (cm)  sepal width (cm)  petal length (cm)  \
count         150.000000        150.000000         150.000000   
mean            5.843333          3.057333           3.758000   
std             0.828066          0.435866           1.765298   
min             4.300000          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
```

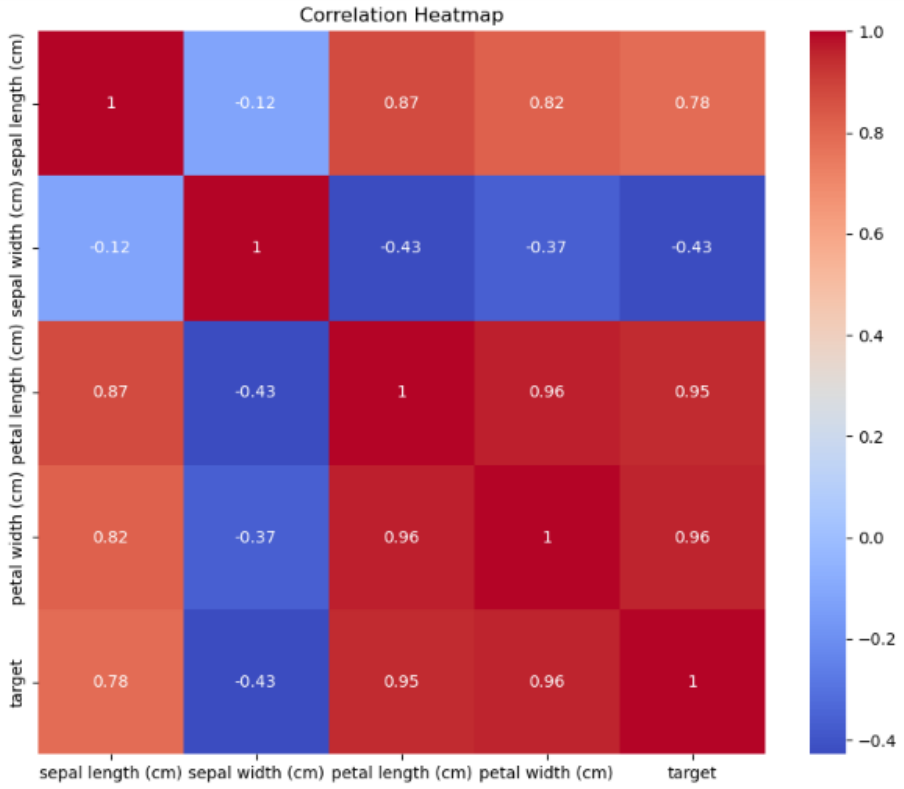
```python
print("\nMissing values:")
print(df.isnull().sum())
```

```
Missing values:
sepal length (cm)    0
sepal width (cm)     0
petal length (cm)    0
petal width (cm)     0
target               0
dtype: int64
```

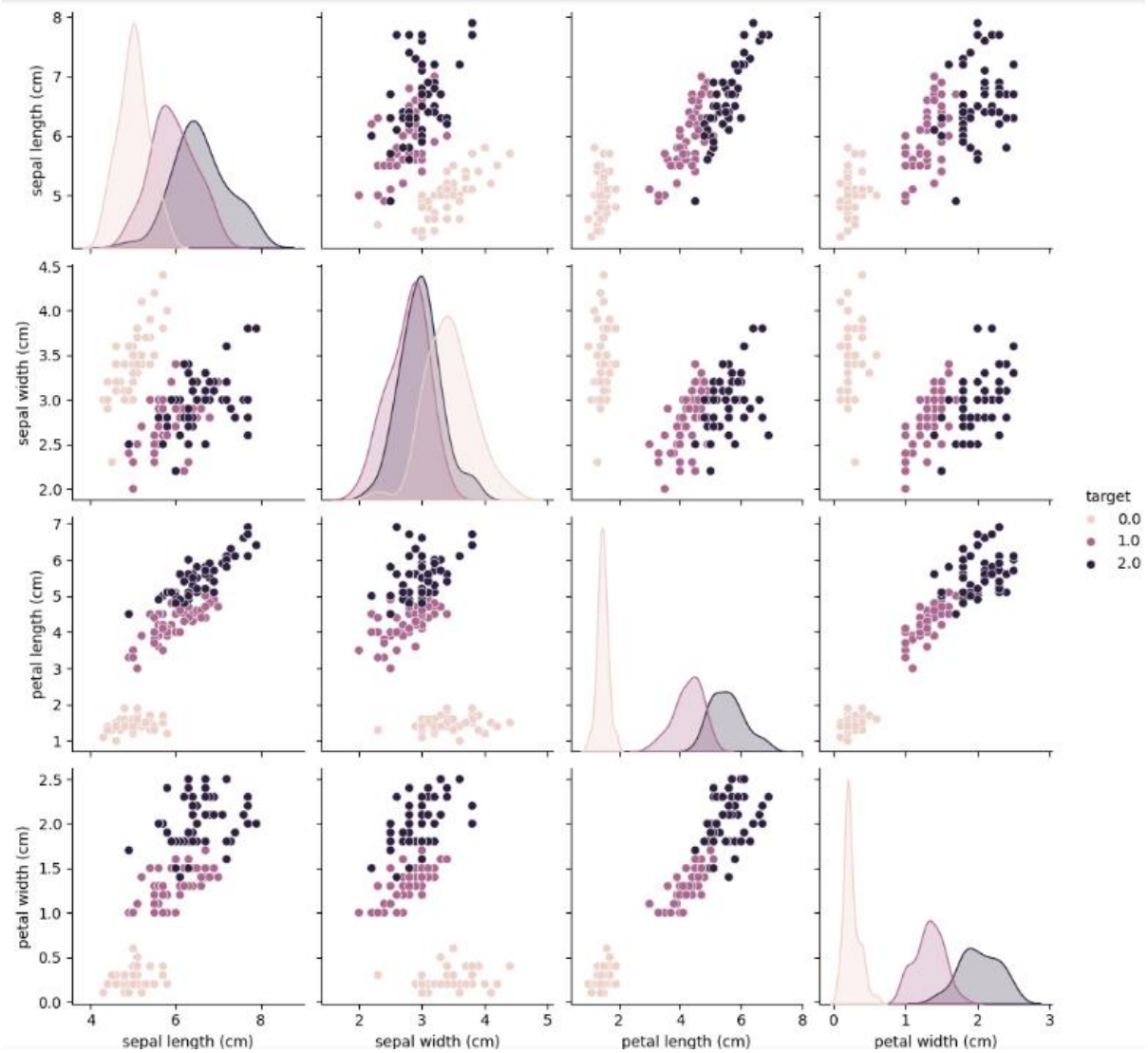
```
plt.figure(figsize=(12, 8))
df.hist()
plt.tight_layout()
plt.savefig('/tmp/histograms.png')
plt.close()
```




```
plt.figure(figsize=(10, 8))
sns.heatmap(df.corr(), annot=True, cmap='coolwarm')
plt.title('Correlation Heatmap')
plt.savefig('/tmp/correlation_heatmap.png')
plt.close()
```



```
sns.pairplot(df, hue='target')
plt.savefig('/tmp/pairplot.png')
plt.close()
```



```
plt.figure(figsize=(12, 8))
for i, feature in enumerate(iris['feature_names']):
    plt.subplot(2, 2, i+1)
    sns.boxplot(x='target', y=feature, data=df)
    plt.title(feature)
plt.tight_layout()
plt.savefig('/tmp/boxplots.png')
plt.close()
```