

```
In [7]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

from sklearn.datasets import load_iris
iris = load_iris()
data = pd.DataFrame(data=iris.data, columns=iris.feature_names)
data['target'] = iris.target
data['species'] = data['target'].map({0: 'setosa', 1: 'versicolor', 2: 'virginica'})

print(data.info())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 6 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   int32
5   species                150 non-null   object
dtypes: float64(4), int32(1), object(1)
memory usage: 6.6+ KB
None
```

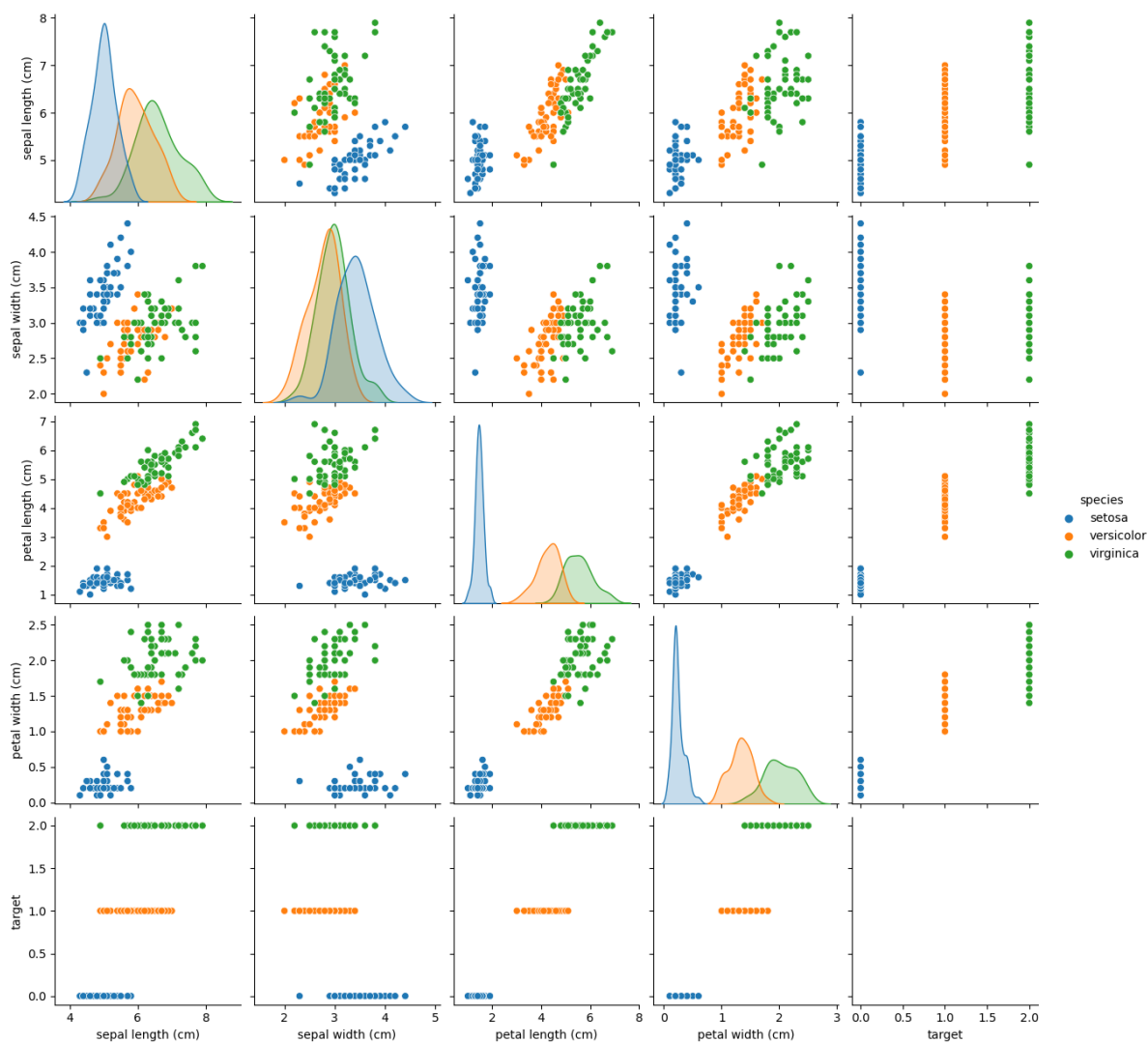
```
In [8]: print(data.describe())
```

	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

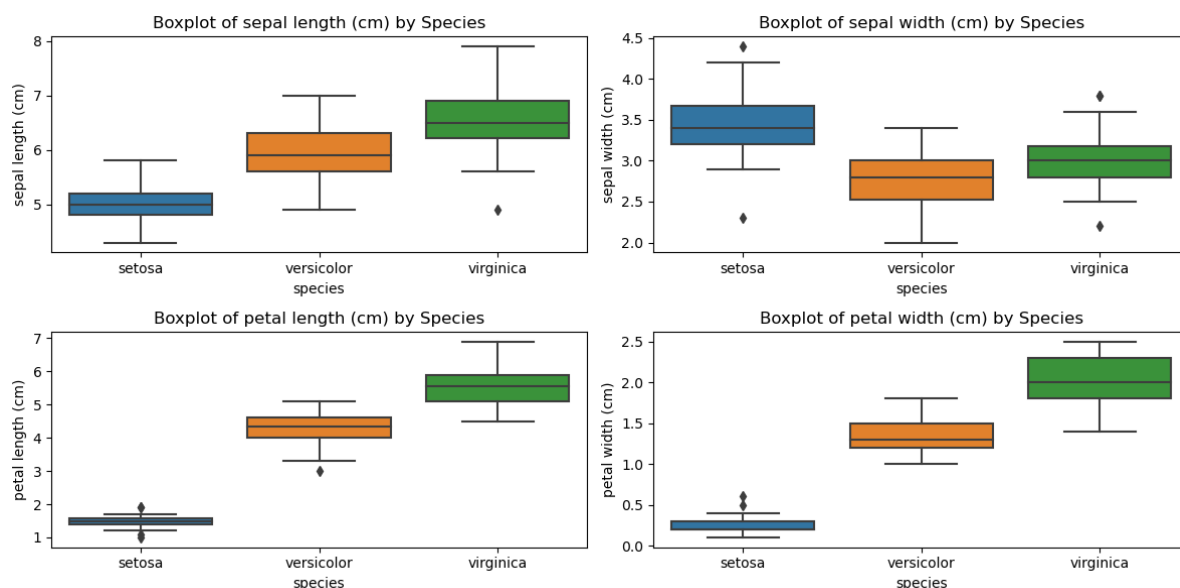
	petal width (cm)	target
count	150.000000	150.000000
mean	1.199333	1.000000
std	0.762238	0.819232
min	0.100000	0.000000
25%	0.300000	0.000000
50%	1.300000	1.000000
75%	1.800000	2.000000
max	2.500000	2.000000

```
In [10]: sns.pairplot(data, hue='species')
plt.show()
```

```
C:\Users\HP\anaconda3\Lib\site-packages\seaborn\axisgrid.py:118: UserWarning: The
figure layout has changed to tight
  self._figure.tight_layout(*args, **kwargs)
```



```
In [11]: plt.figure(figsize=(12, 6))
for i, feature in enumerate(iris.feature_names):
    plt.subplot(2, 2, i+1)
    sns.boxplot(x='species', y=feature, data=data)
    plt.title(f'Boxplot of {feature} by Species')
plt.tight_layout()
plt.show()
```



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In [ ]:
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In []: