

```
In [1]: 1 import seaborn as sns
        2 import pandas as pd
        3 import matplotlib.pyplot as plt
```

```
In [2]: 1 data = sns.load_dataset('iris')
        2 print("Missing Values:\n", data.isnull().sum())
        3 numeric_cols = data.select_dtypes(include='number').columns
        4 data[numeric_cols] = data[numeric_cols].fillna(data[numeric_cols].mean())
        5 print("\nDataset Info:")
        6 print(data.info())
        7 print("\nSummary Statistics:")
        8 print(data.describe())
```

Missing Values:

```
sepal_length    0
sepal_width     0
petal_length    0
petal_width     0
species         0
dtype: int64
```

Dataset Info:

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 150 entries, 0 to 149
```

```
Data columns (total 5 columns):
```

#	Column	Non-Null Count	Dtype
0	sepal_length	150 non-null	float64
1	sepal_width	150 non-null	float64
2	petal_length	150 non-null	float64
3	petal_width	150 non-null	float64
4	species	150 non-null	object

```
dtypes: float64(4), object(1)
```

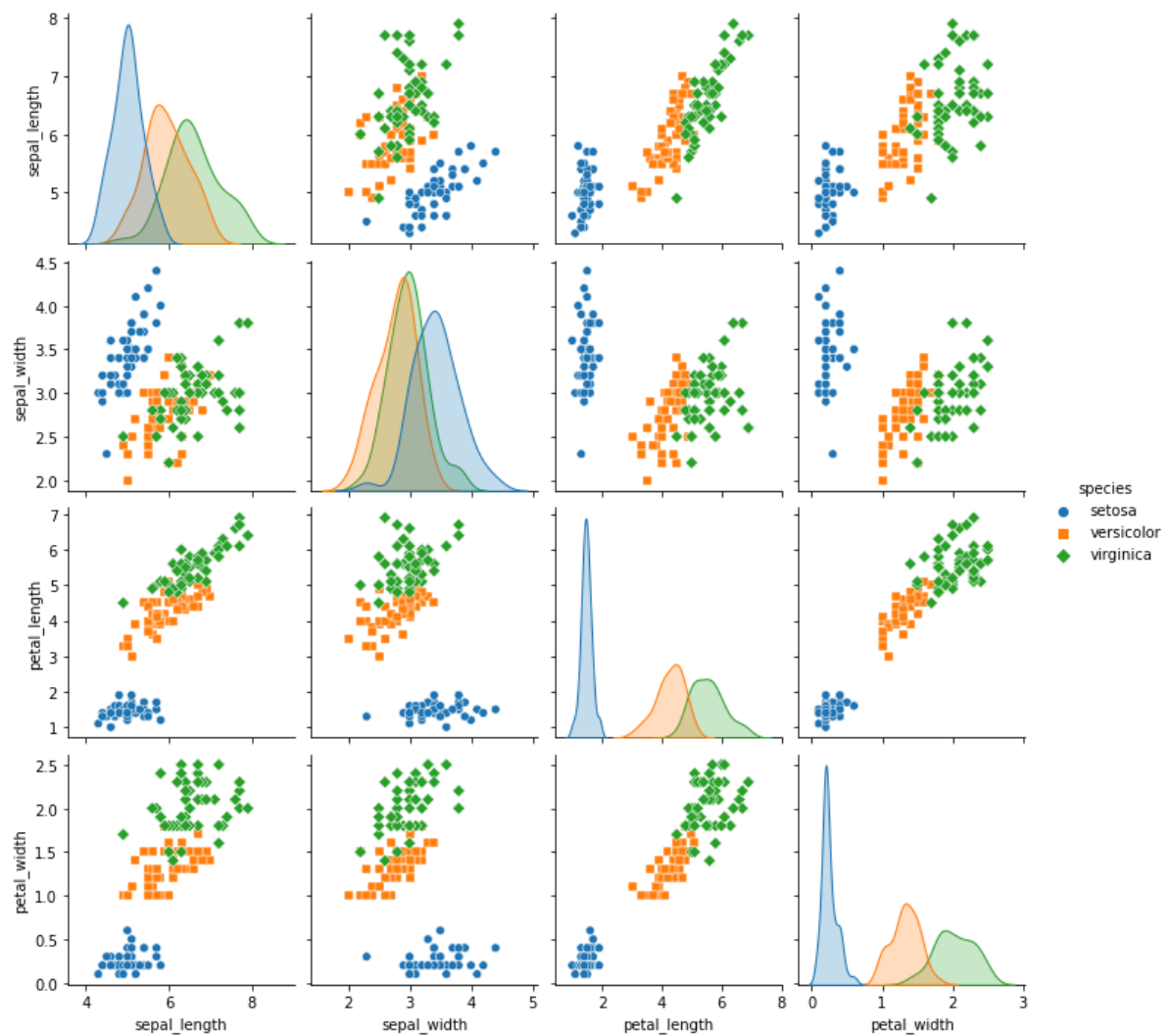
```
memory usage: 6.0+ KB
```

```
None
```

Summary Statistics:

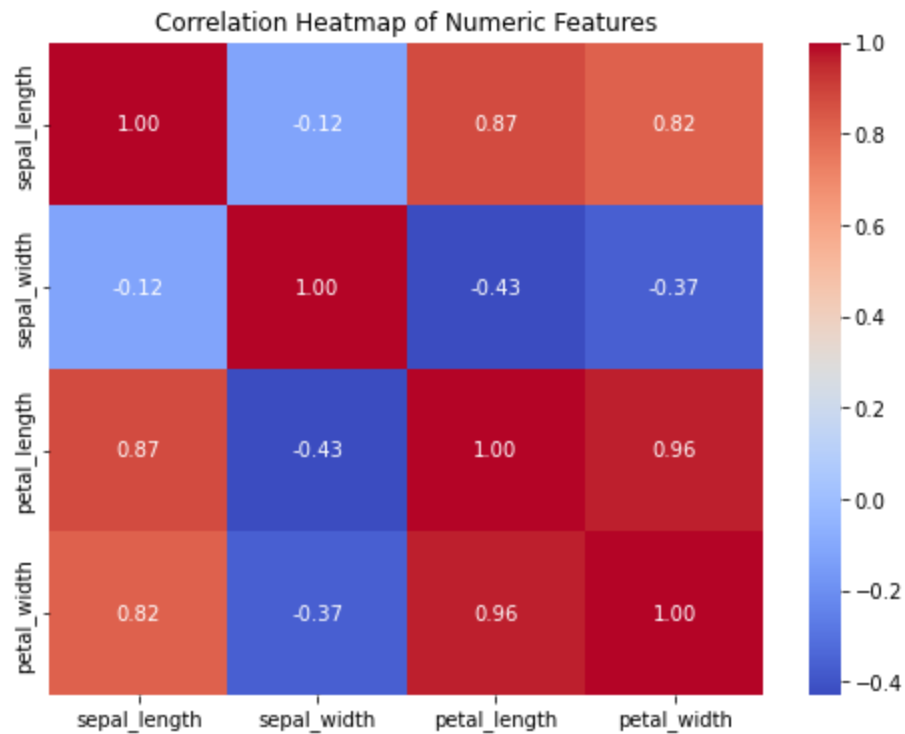
	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.057333	3.758000	1.199333
std	0.828066	0.435866	1.765298	0.762238
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

```
In [3]: 1 sns.pairplot(data, hue='species', markers=["o", "s", "D"])
2 plt.show()
3
```



```
In [4]: 1 numeric_data = data.select_dtypes(include='number')
2 correlation_matrix = numeric_data.corr()
```

```
In [5]: 1 plt.figure(figsize=(8, 6))
2 sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm', fmt=".2f")
3 plt.title("Correlation Heatmap of Numeric Features")
4 plt.show()
```



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In [ ]:
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1
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In [ ]:
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1
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In [ ]:
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1
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