```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

df=pd.read_csv(r"C:\Users\ASUS\Documents\pythonStack\DS_PR\IRIS.csv")
df.head()
```

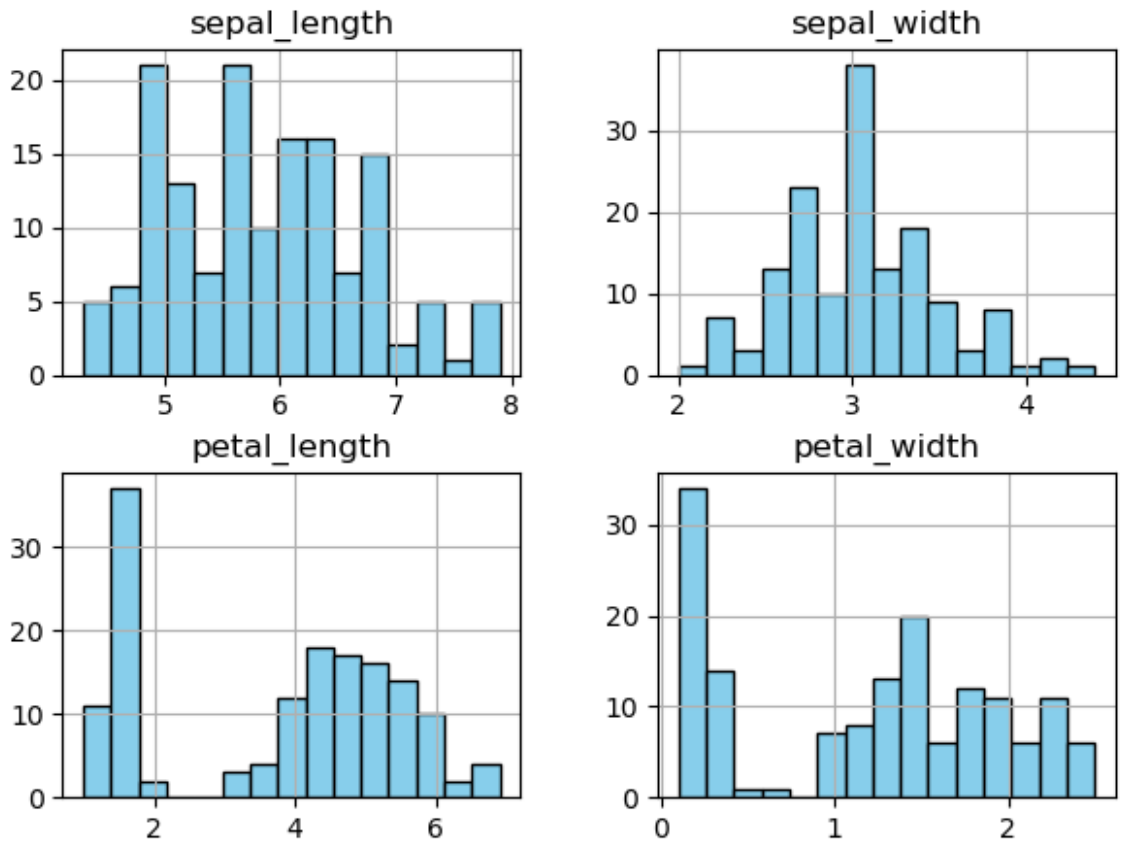
	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa

```
#It ensures you're aware of which features are numerical (for
plotting) and which are categorical (e.g., species).
# Check the data types of each column
feature_types = df.dtypes

# Display the feature types
print(feature_types)
```

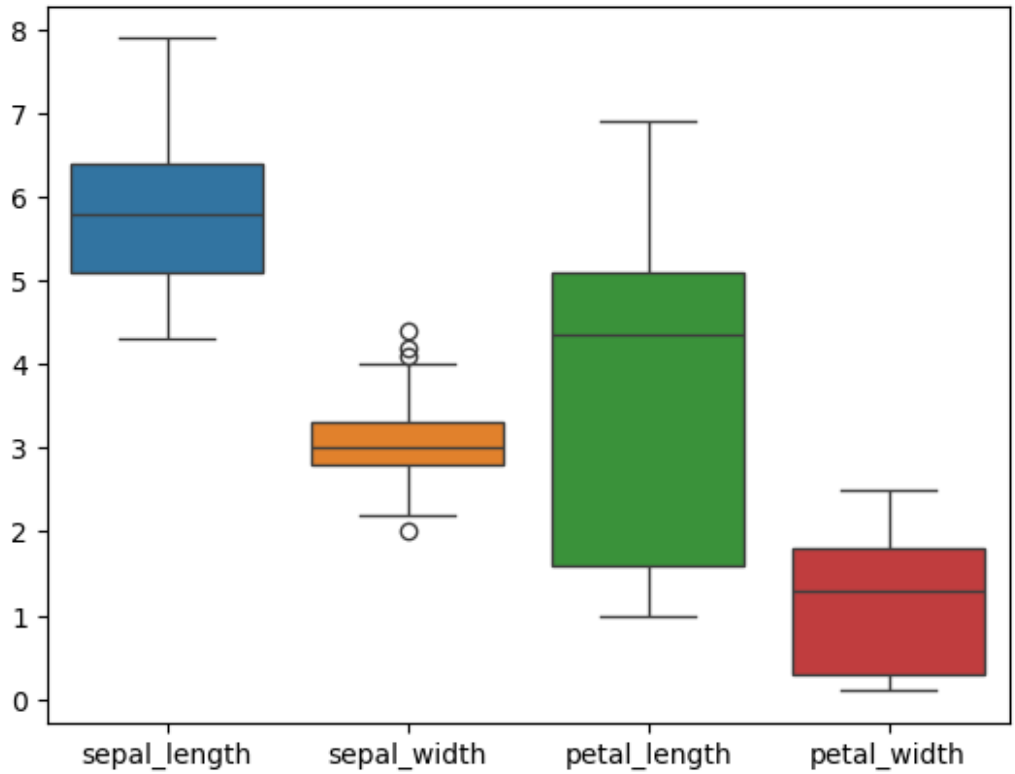
```
sepal_length    float64
sepal_width     float64
petal_length    float64
petal_width     float64
species          object
dtype: object
```

```
# Creating histograms for each numerical feature in the dataset
df.hist(figsize=(7, 5), bins=15, color='skyblue', edgecolor='black')
plt.show()
```




```
sns.boxplot(data=df)
```

```
<Axes: >
```




```
print(df.describe().round())
```

	sepal_length	sepal_width	petal_length	petal_width
count	150.0	150.0	150.0	150.0
mean	6.0	3.0	4.0	1.0
std	1.0	0.0	2.0	1.0
min	4.0	2.0	1.0	0.0
25%	5.0	3.0	2.0	0.0
50%	6.0	3.0	4.0	1.0
75%	6.0	3.0	5.0	2.0
max	8.0	4.0	7.0	2.0

```
# sepal_length: Mean = 6.0, std = 1.0, range = 4.0 to 8.0. Moderate
variability.
# sepal_width: Mean = 3.0, std = 0.0, range = 2.0 to 4.0. Almost no
variability, possible constant value.
# petal_length: Mean = 4.0, std = 2.0, range = 1.0 to 7.0. High
variability.
# petal_width: Mean = 1.0, std = 1.0, range = 0.0 to 2.0. Moderate
variability.

# Key Insights:
# - Outliers: Potential outliers should be checked in box plots.
# - Spread: Features like 'petal_length' have higher spread compared
to others.
```

```
# - Constant feature: 'sepal_width' has no variability (std = 0),
possibly constant.
```