

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

```
dt = sns.load_dataset("iris")
```

```
dt.head()
```

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

```
# Create histograms for each numeric feature
```

```
dt.hist(figsize=(10, 8), bins=15, color='skyblue', edgecolor='black')
```

```
# Add a title
```

```
plt.suptitle("Feature Distributions (Histograms) - Iris Dataset",  
fontsize=14)
```

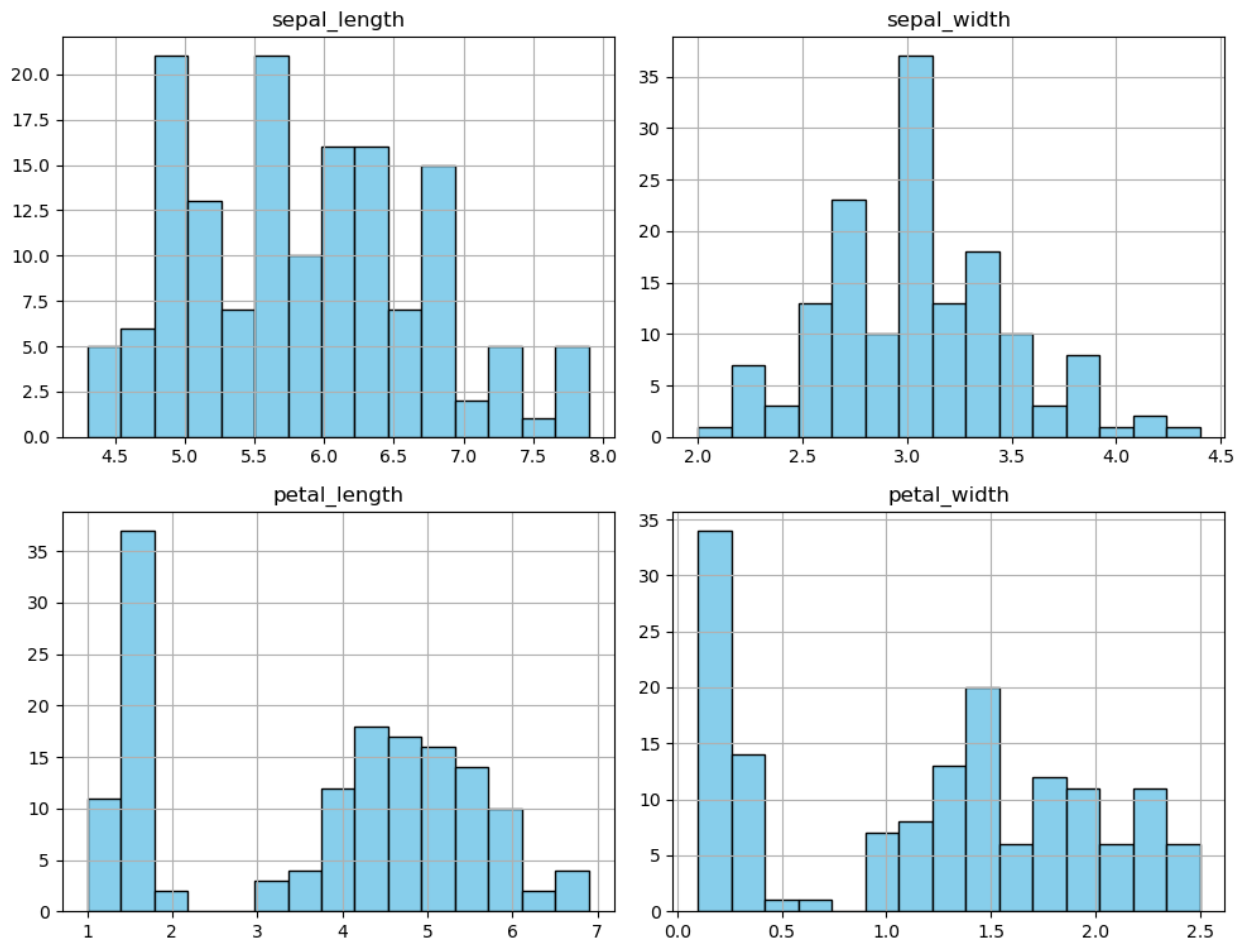
```
# Adjust layout
```

```
plt.tight_layout()
```

```
# Show the plot
```

```
plt.show()
```

Feature Distributions (Histograms) - Iris Dataset



OBSERVATION:- The sepal length is evenly spread out, with most of the values concentrated around the middle. The sepal width is slightly skewed to the left, indicating that there are more smaller values. The petal length is right-skewed, with most values clustered at the smaller end and a few larger values. Similarly, the petal width also shows a right-skewed distribution, with more values being smaller and fewer larger values. These histograms provide a clear view of how each feature varies within the dataset, helping us understand its overall structure.

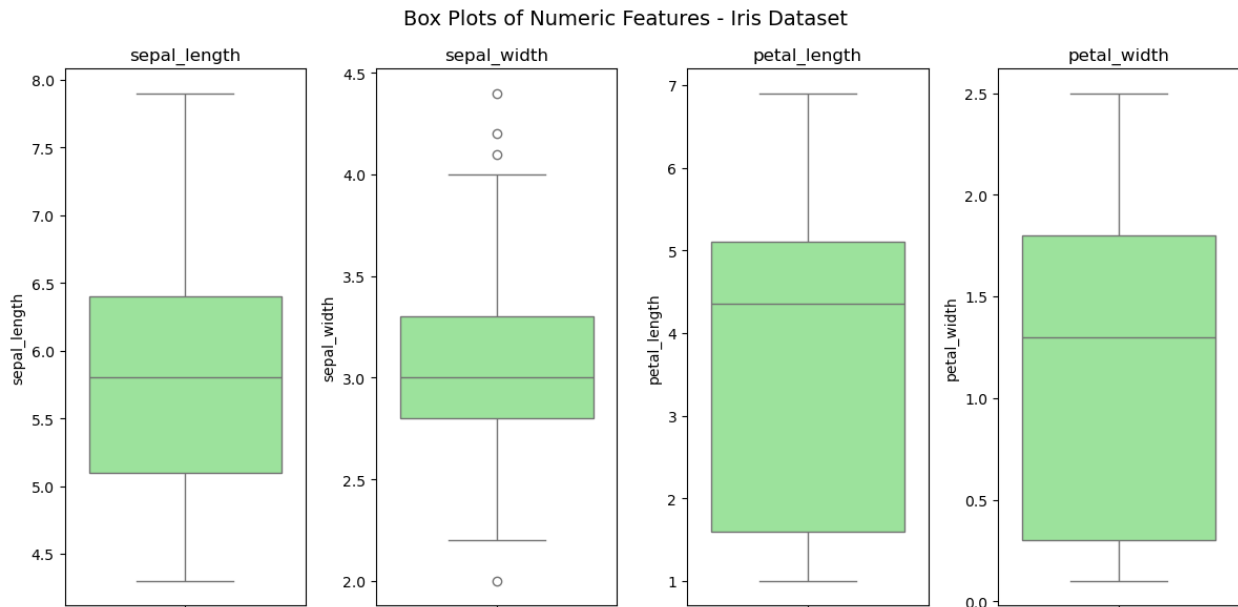
```
# Create box plots for each numeric feature
plt.figure(figsize=(12, 6))

for i, column in
    enumerate(dt.select_dtypes(include='number').columns):
        plt.subplot(1, 4, 1 + i)
        sns.boxplot(y=dt[column], color='lightgreen')
        plt.title(column)

# Add a main title
plt.suptitle("Box Plots of Numeric Features - Iris Dataset",
            fontsize=14)
```

```
# Adjust layout  
plt.tight_layout()
```

```
# Show plot  
plt.show()
```



OBSERVATION:- The box plots of the Iris dataset show how the values for each feature (sepal length, sepal width, petal length, and petal width) are spread out. Sepal length has a fairly even range, with a few values being unusually high. Sepal width has values that are mostly concentrated in the lower range, with a few outliers on the lower side. Petal length and petal width have wider ranges, and petal width shows some very high values. Overall, petal features have a bigger spread compared to sepal features, and the plots help us spot outliers in the data.