Assignment no 10

In [ ]:
```
Aim:
 Data Visualization III
```

In [ ]:
```
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Batch:B3
```

In [15]:
```
import seaborn as sns
import pandas as pd
```

In [17]:
```
iris = sns.load_dataset('iris')
iris
```

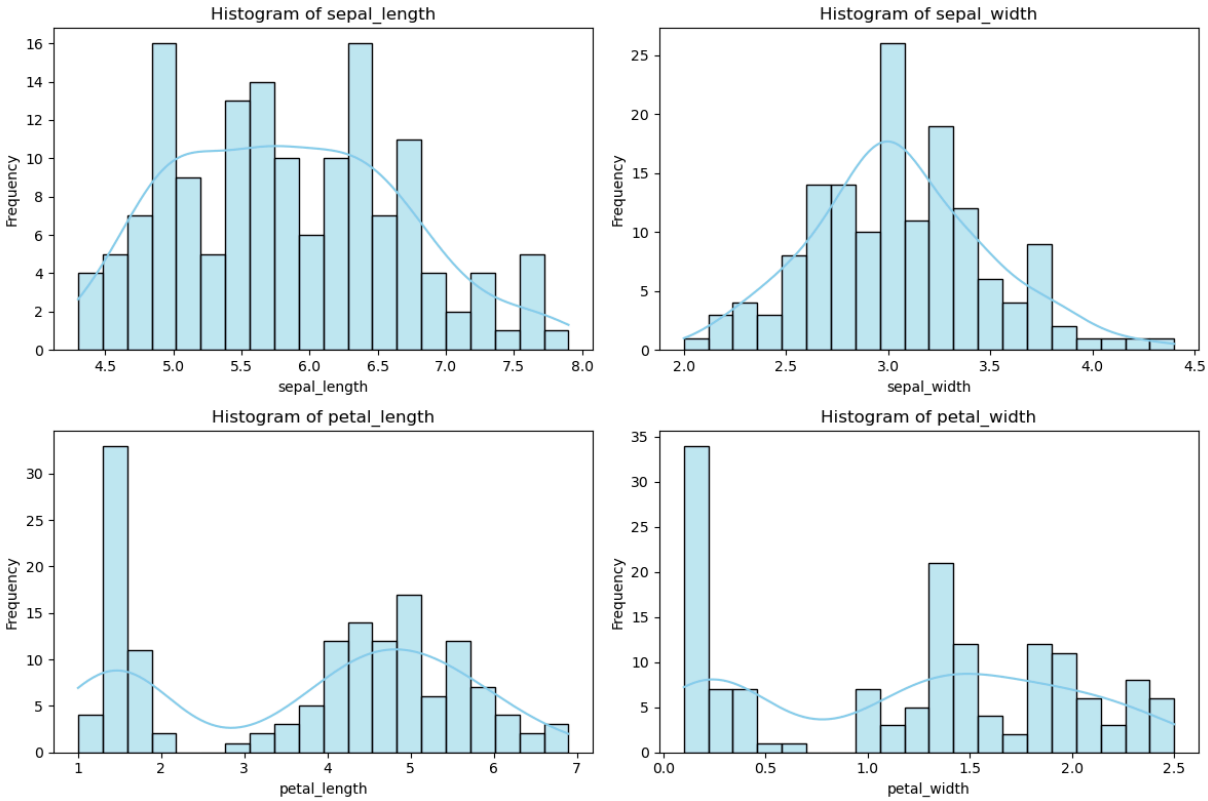
Out[17]:

	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
...	...	...	...	...	...
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

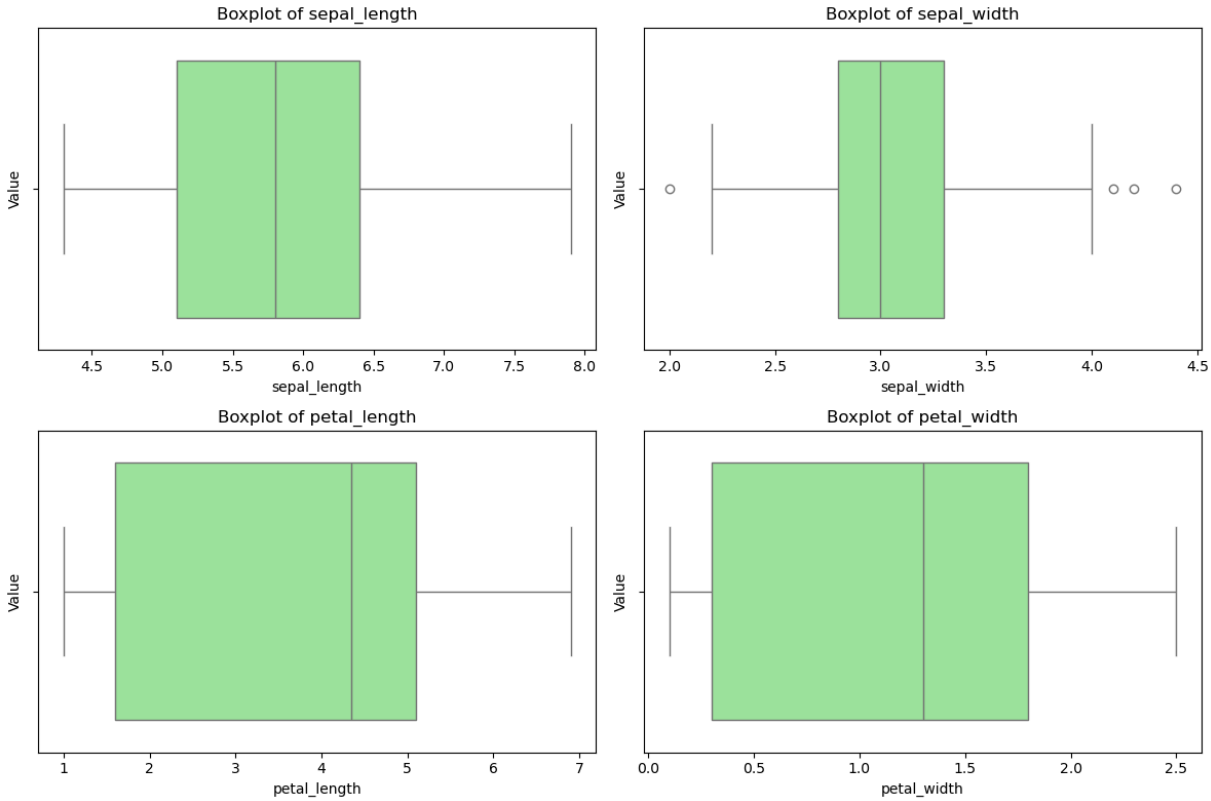
150 rows × 5 columns

In [19]:
```
import matplotlib.pyplot as plt

# Set up the plotting grid
plt.figure(figsize=(12, 8))

# Create a histogram for each feature
features = ['sepal_length', 'sepal_width', 'petal_length', 'petal_width']

for i, feature in enumerate(features, 1):
    plt.subplot(2, 2, i)
    sns.histplot(iris[feature], kde=True, bins=20, color='skyblue')
    plt.title(f'Histogram of {feature}')
```

```
    plt.xlabel(feature)
    plt.ylabel('Frequency')

plt.tight_layout()
plt.show()
```



In [23]:
```
# Set up the plotting grid
plt.figure(figsize=(12, 8))

# Create a box plot for each feature
for i, feature in enumerate(features, 1):
    plt.subplot(2, 2, i)
    sns.boxplot(x=iris[feature], color='lightgreen')

    # Set title, x-axis label, and y-axis label
    plt.title(f'Boxplot of {feature}')
    plt.xlabel(feature)
    plt.ylabel('Value')

plt.tight_layout()
plt.show()
```


Boxplot of sepal_length
Value
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0
sepal_length
Boxplot of sepal_width
Value
2.0
2.5
3.0
3.5
4.0
4.5
sepal_width
Boxplot of petal_length
Value
1
2
3
4
5
6
7
petal_length
Boxplot of petal_width
Value
0.0
0.5
1.0
1.5
2.0
2.5
petal_width