In [ ]:
```
ASSIGNMENT NO:10
```

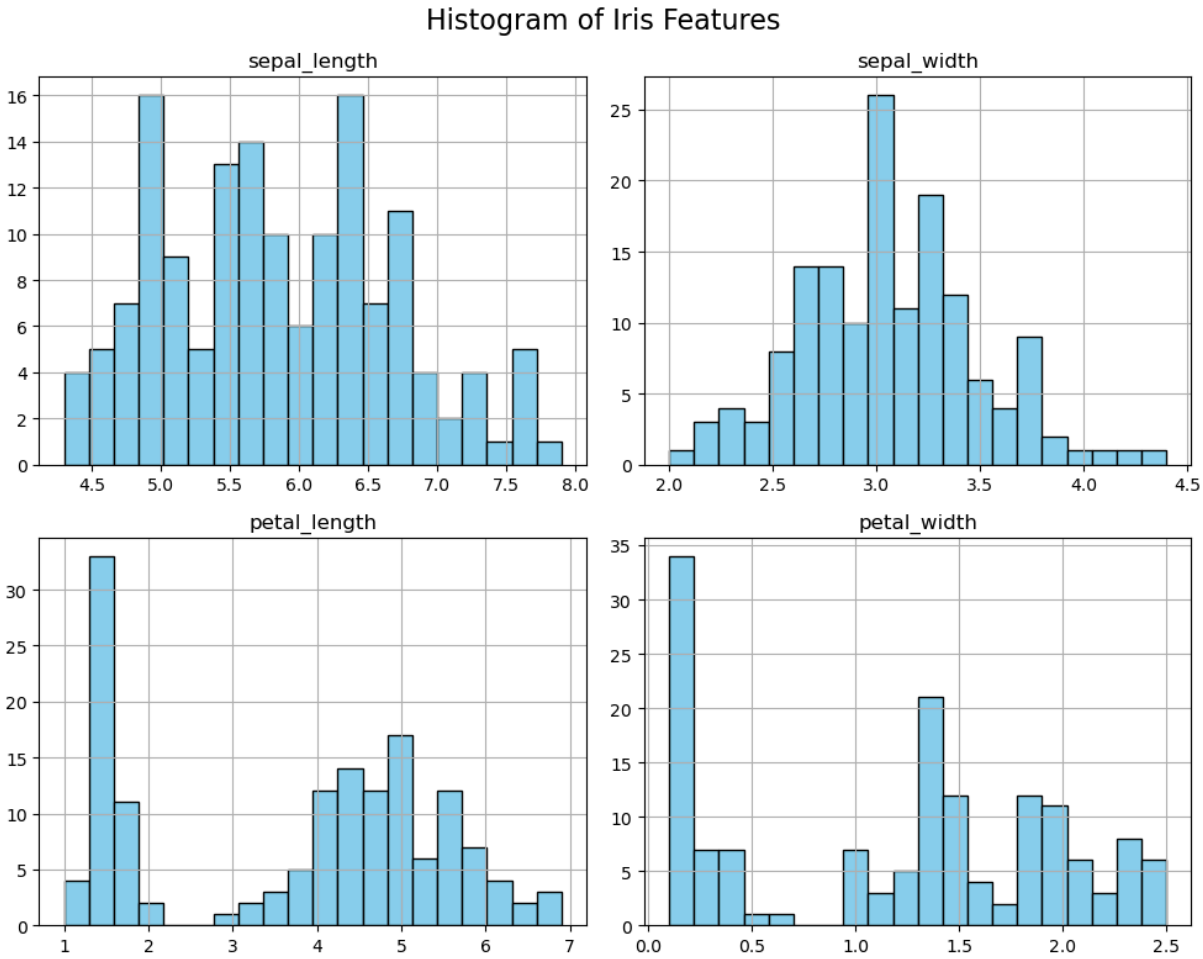
In [ ]:
```
AIM: Data Visualization III
     1. List down the features and their types (e.g., numeric, nominal) available i
     2. Create a histogram for each feature in the dataset to illustrate the featur
     3. Create a box plot for each feature in the dataset.
     4. Compare distributions and identify outliers.
```

In [1]:
```
import seaborn as sns
import pandas as pd
```

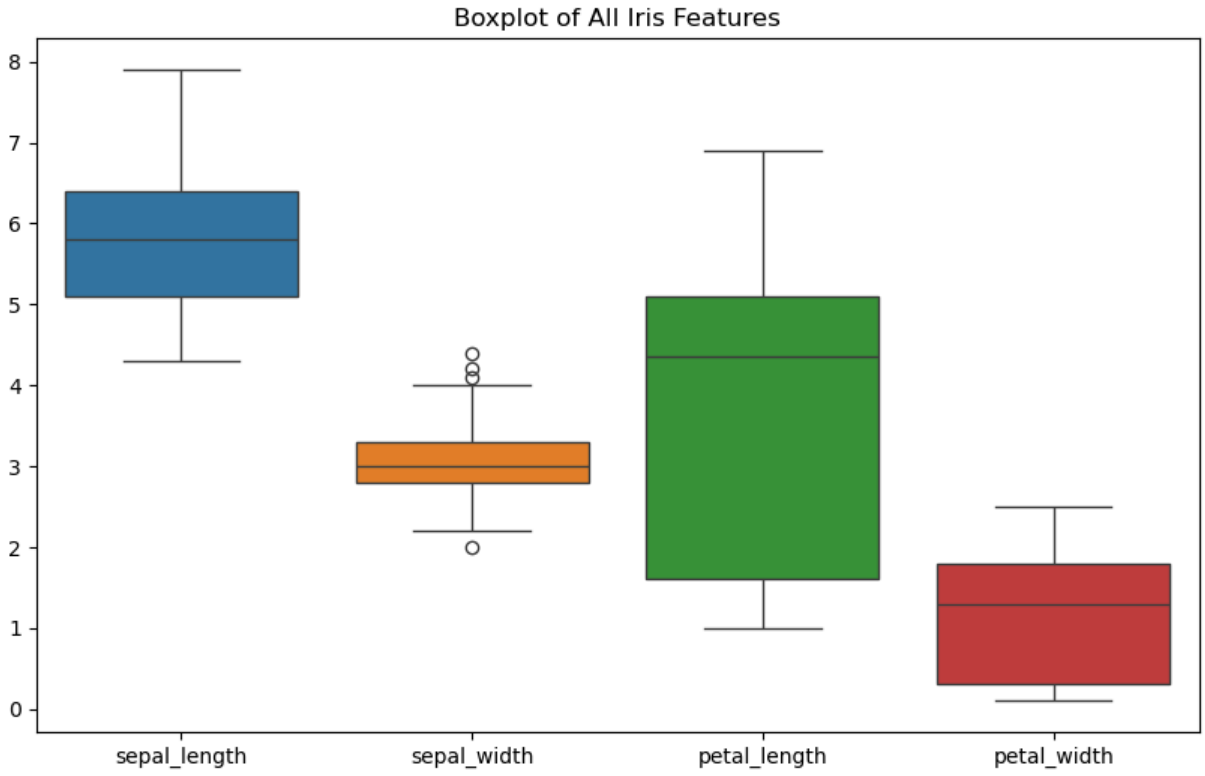
In [5]:
```
iris=sns.load_dataset('iris')
print(iris.dtypes)
```

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

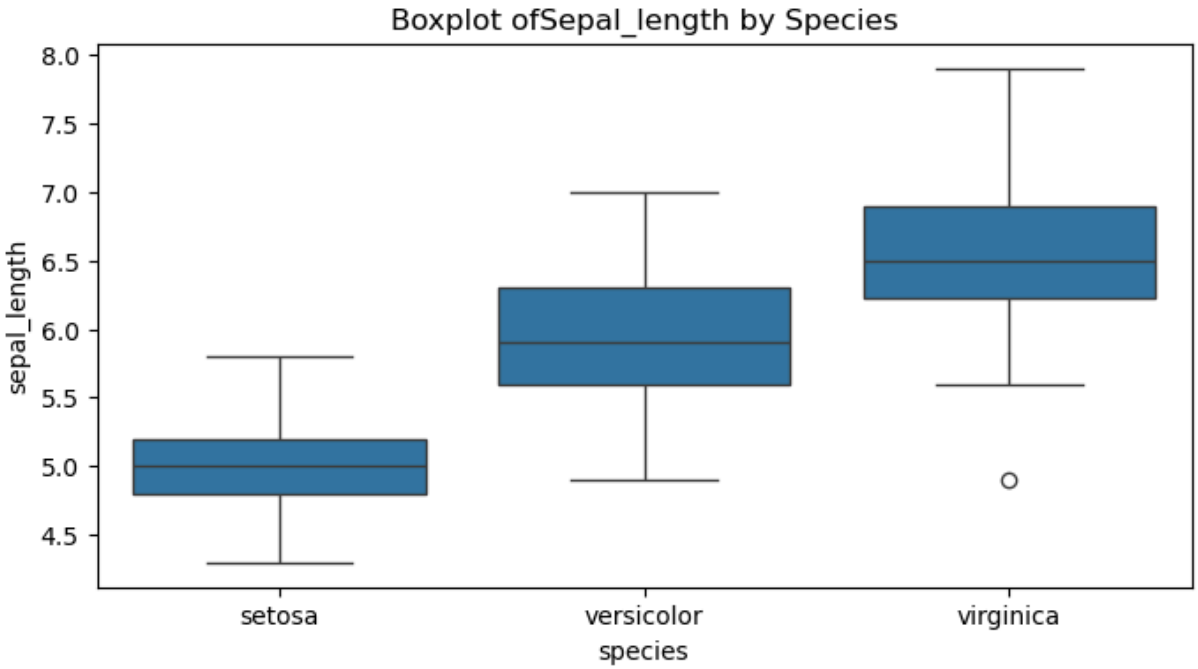
In [9]:
```
import matplotlib.pyplot as plt
iris.hist(figsize=(10,8),bins=20,color='skyblue',edgecolor='black')
plt.suptitle('Histogram of Iris Features',fontsize=16)
plt.tight_layout()
plt.show()
```

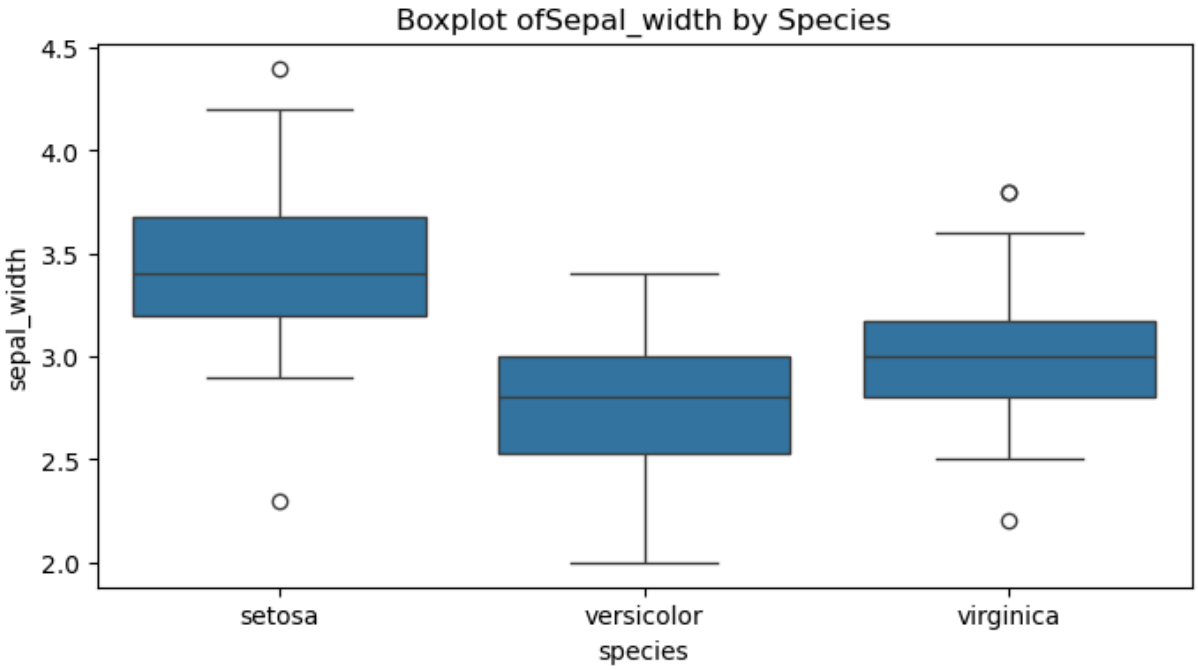


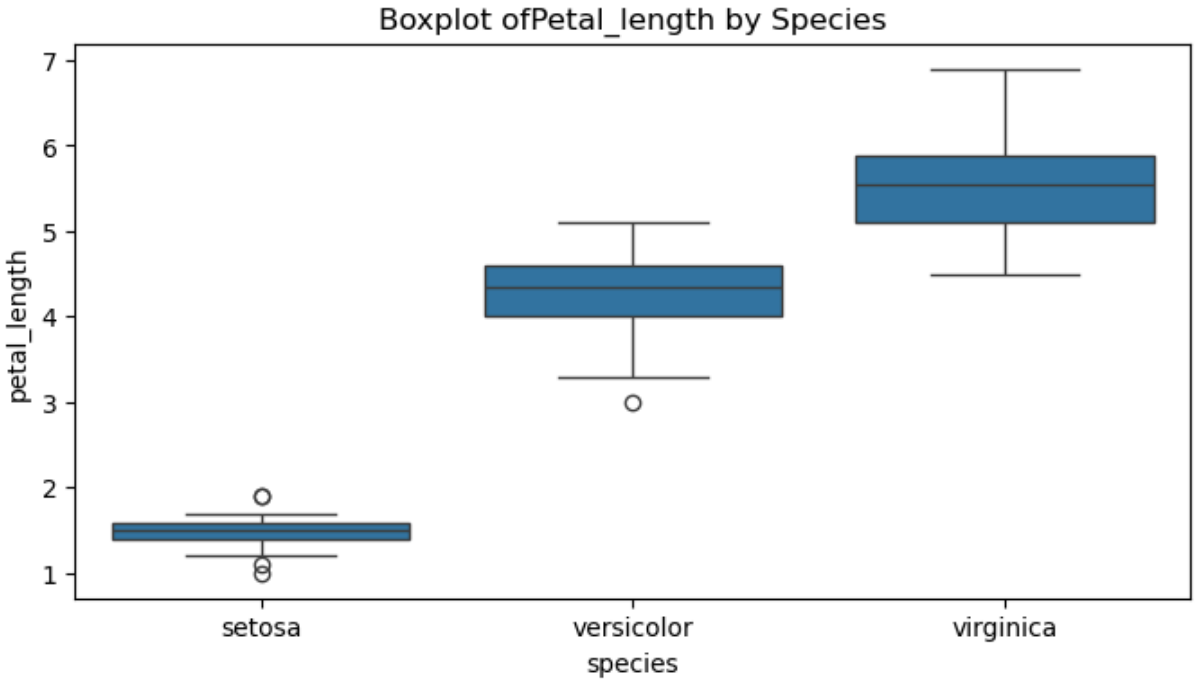
In [11]:
```
plt.figure(figsize=(10,6))
sns.boxplot(data=iris)
plt.title('Boxplot of All Iris Features')
plt.show()
```

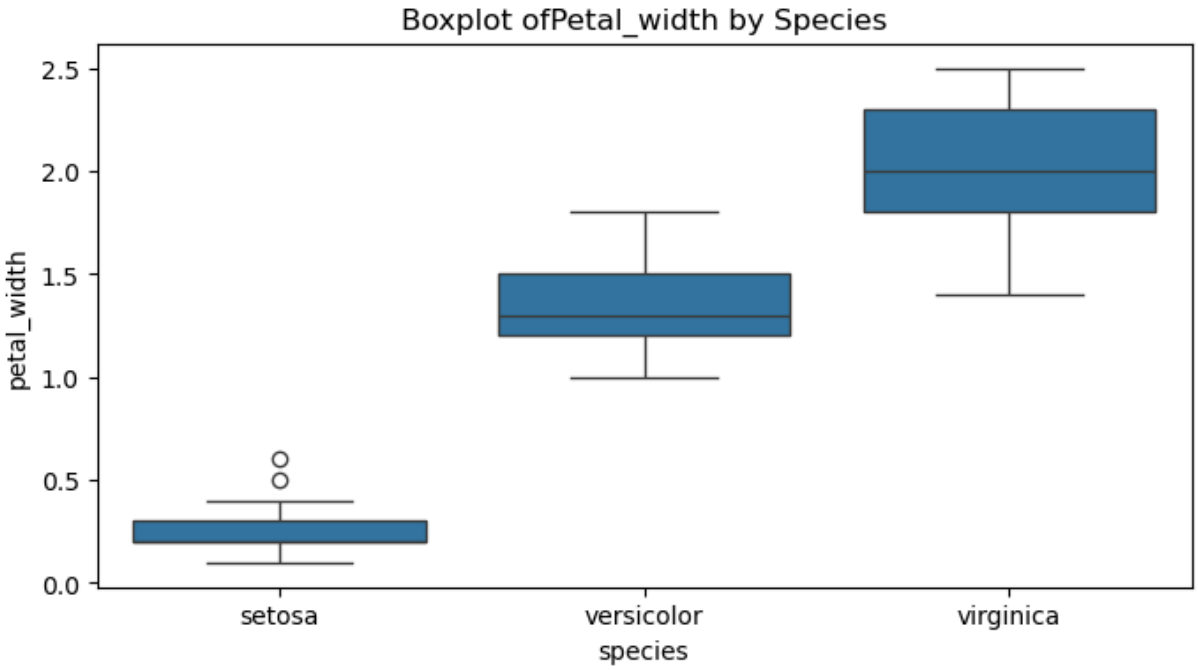


In [13]:
```
for column in iris.select_dtypes(include='float'):
    plt.figure(figsize=(8,4))
    sns.boxplot(x='species',y=column,data=iris)
    plt.title(f'Boxplot of{column.capitalize()} by Species')
    plt.show()
```




Boxplot ofSepal_width by Species
sepal_width
4.5
4.0
3.5
3.0
2.5
2.0
setosa
versicolor
virginica
species


Boxplot ofPetal_length by Species
petal_length
7
6
5
4
3
2
1
setosa
versicolor
virginica
species



In [ ]:
```
NAME:Siddhi Kakade
ROLLNO:13214
```