

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

```
In [4]: df = pd.read_csv("https://raw.githubusercontent.com/shrikant-temburwar/Iris-Dataset")
```

```
In [6]: df
```

```
Out[6]:
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	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
<b>0</b>	1	5.1	3.5	1.4	0.2	Iris-setosa
<b>1</b>	2	4.9	3.0	1.4	0.2	Iris-setosa
<b>2</b>	3	4.7	3.2	1.3	0.2	Iris-setosa
<b>3</b>	4	4.6	3.1	1.5	0.2	Iris-setosa
<b>4</b>	5	5.0	3.6	1.4	0.2	Iris-setosa
...	...	...	...	...	...	...
<b>145</b>	146	6.7	3.0	5.2	2.3	Iris-virginica
<b>146</b>	147	6.3	2.5	5.0	1.9	Iris-virginica
<b>147</b>	148	6.5	3.0	5.2	2.0	Iris-virginica
<b>148</b>	149	6.2	3.4	5.4	2.3	Iris-virginica
<b>149</b>	150	5.9	3.0	5.1	1.8	Iris-virginica

150 rows × 6 columns

```
In [8]: df.describe()
```

```
Out[8]:
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
<b>count</b>	150.000000	150.000000	150.000000	150.000000	150.000000
<b>mean</b>	75.500000	5.843333	3.054000	3.758667	1.198667
<b>std</b>	43.445368	0.828066	0.433594	1.764420	0.763161
<b>min</b>	1.000000	4.300000	2.000000	1.000000	0.100000
<b>25%</b>	38.250000	5.100000	2.800000	1.600000	0.300000
<b>50%</b>	75.500000	5.800000	3.000000	4.350000	1.300000
<b>75%</b>	112.750000	6.400000	3.300000	5.100000	1.800000
<b>max</b>	150.000000	7.900000	4.400000	6.900000	2.500000

```
In [10]: df.shape
```

```
Out[10]: (150, 6)
```

```
In [12]: df["Species"].unique()
```

```
Out[12]: array(['Iris-setosa', 'Iris-versicolor', 'Iris-virginica'], dtype=object)
```

```
In [14]: df.groupby("Species").size()
```

```
Out[14]: Species
Iris-setosa      50
Iris-versicolor  50
Iris-virginica   50
dtype: int64
```

```
In [16]: df.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 6 columns):
 #   Column          Non-Null Count  Dtype  
---  -
 0   Id              150 non-null   int64  
 1   SepalLengthCm   150 non-null   float64
 2   SepalWidthCm    150 non-null   float64
 3   PetalLengthCm   150 non-null   float64
 4   PetalWidthCm    150 non-null   float64
 5   Species         150 non-null   object  
dtypes: float64(4), int64(1), object(1)
memory usage: 7.2+ KB
```

```
In [19]: def graph(y):
sns.boxplot(x="Species", y=y, data=df)

plt.figure(figsize=(10,10))

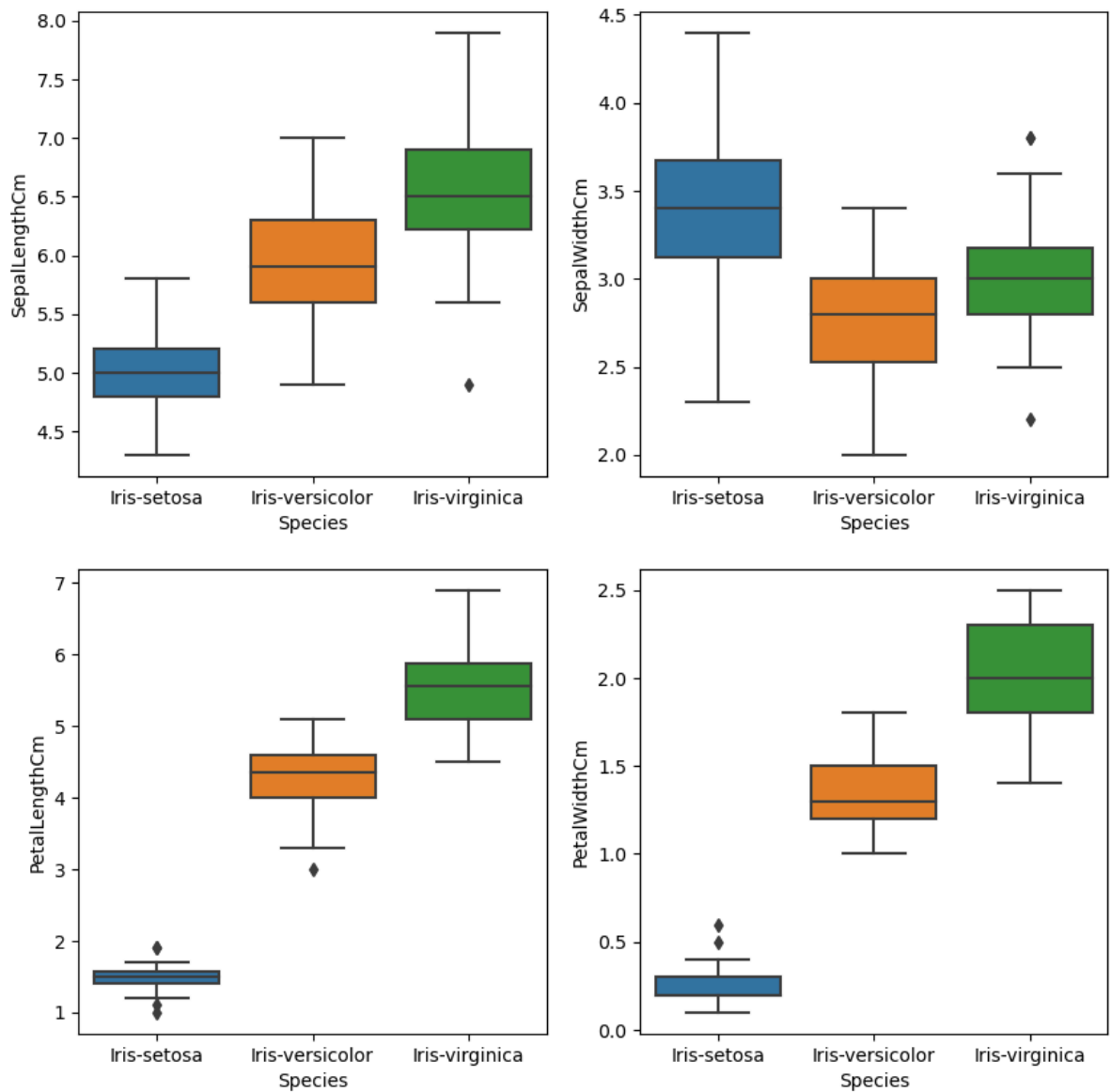
# Adding the subplot at the specified
# grid position
plt.subplot(221)
graph('SepalLengthCm')

plt.subplot(222)
graph('SepalWidthCm')

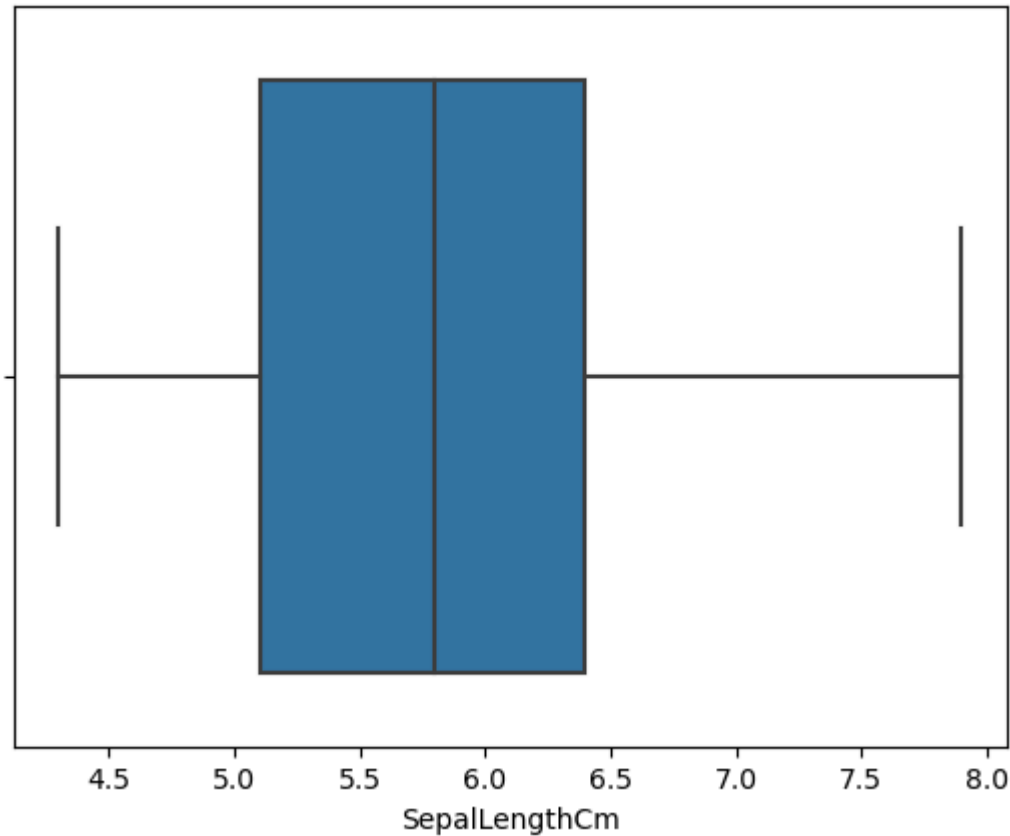
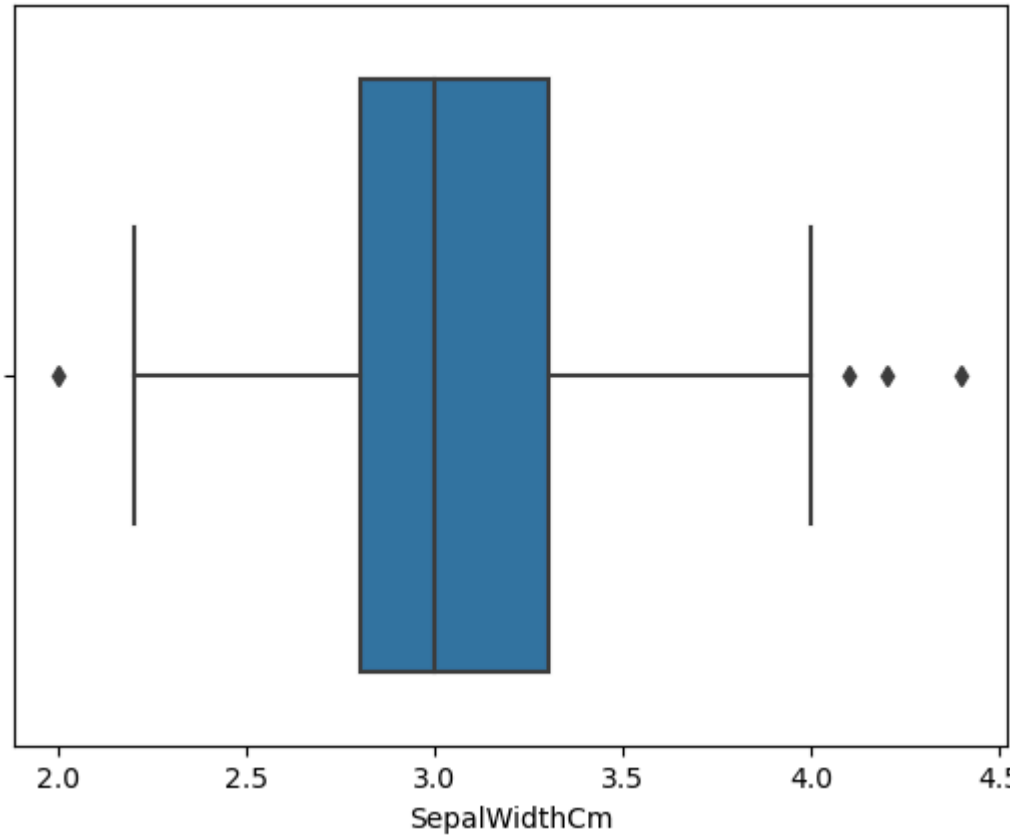
plt.subplot(223)
graph('PetalLengthCm')

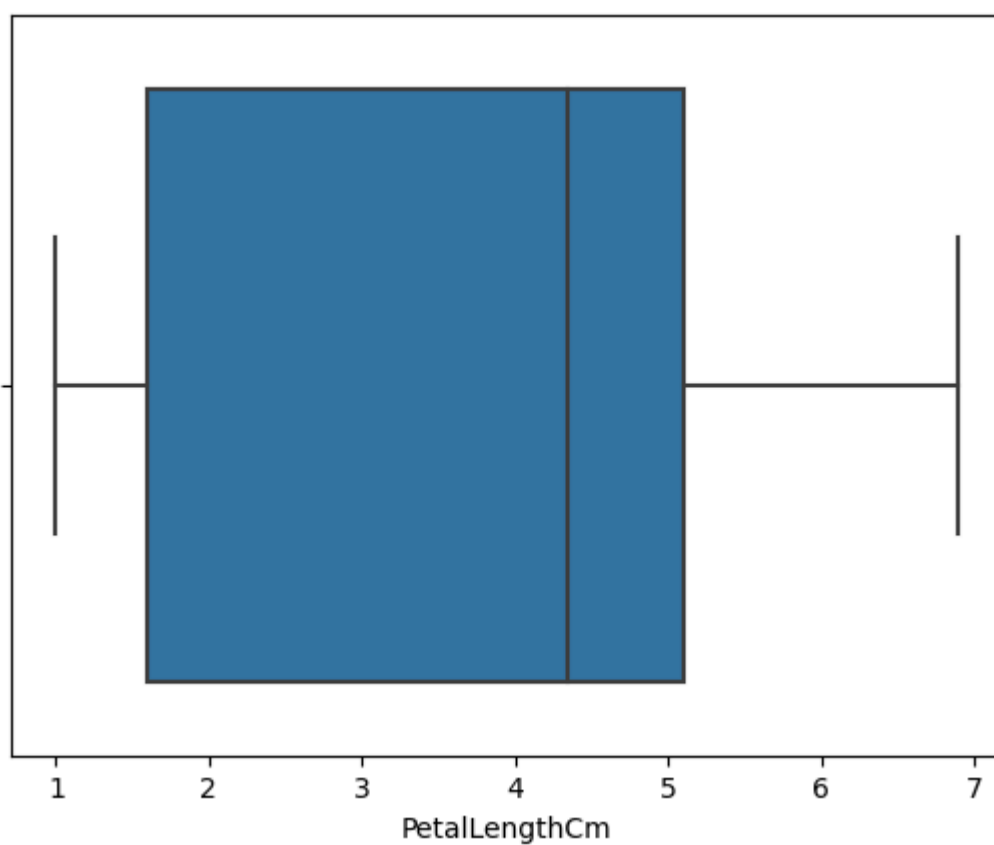
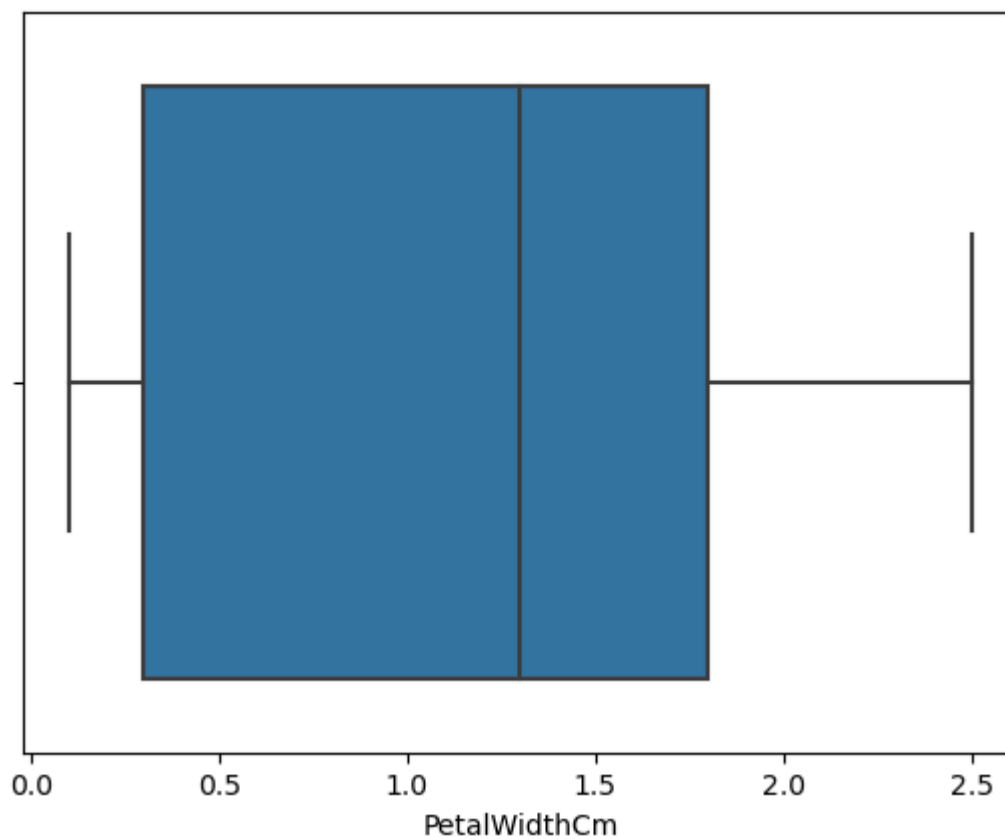
plt.subplot(224)
graph('PetalWidthCm')

plt.show()
```

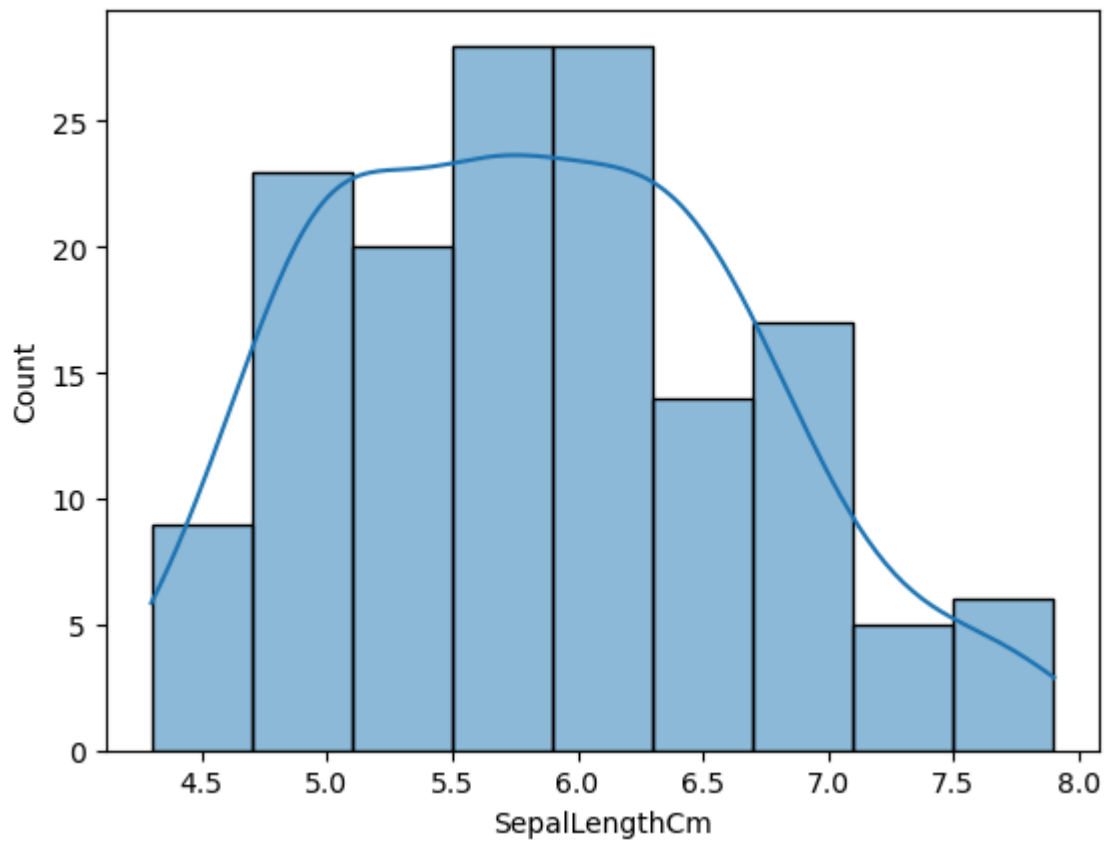


```
In [21]: sns.boxplot(x='SepalWidthCm', data=df)
plt.show()
sns.boxplot(x='SepalLengthCm', data=df)
plt.show()
sns.boxplot(x='PetalWidthCm', data=df)
plt.show()
sns.boxplot(x='PetalLengthCm', data=df)
plt.show()
```

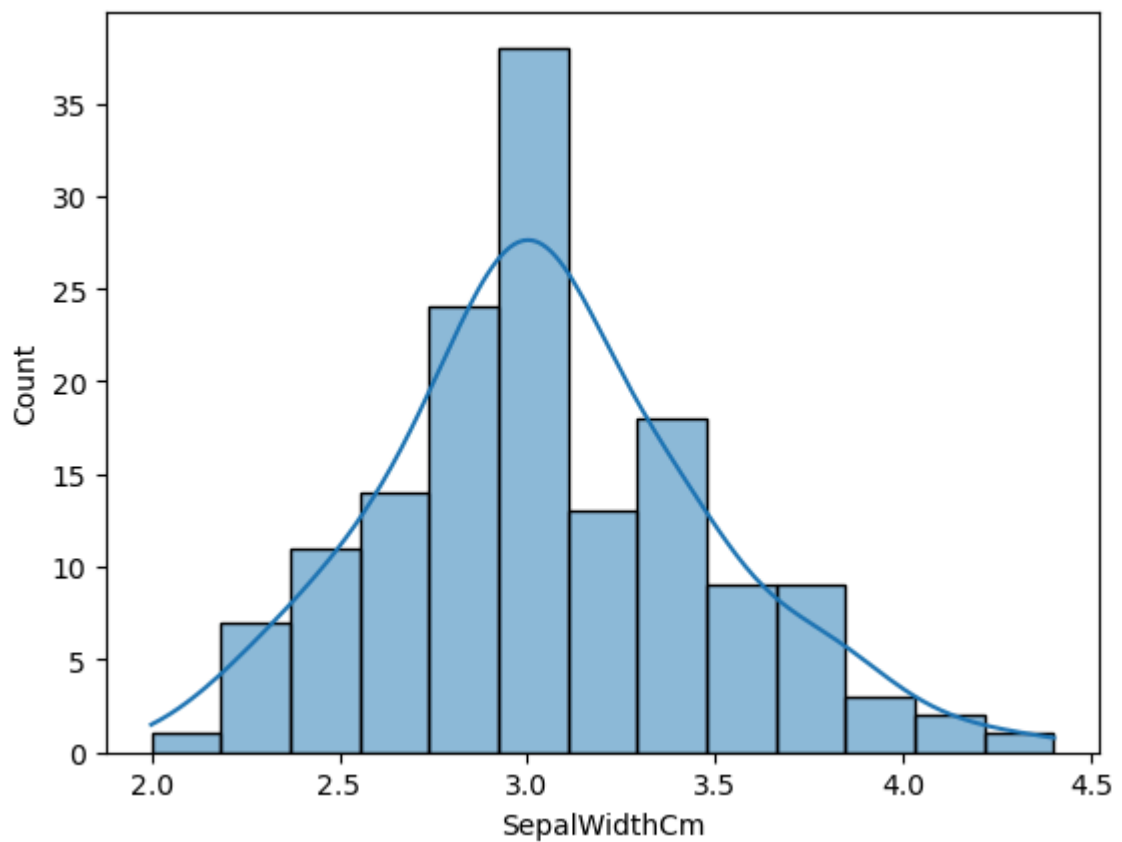




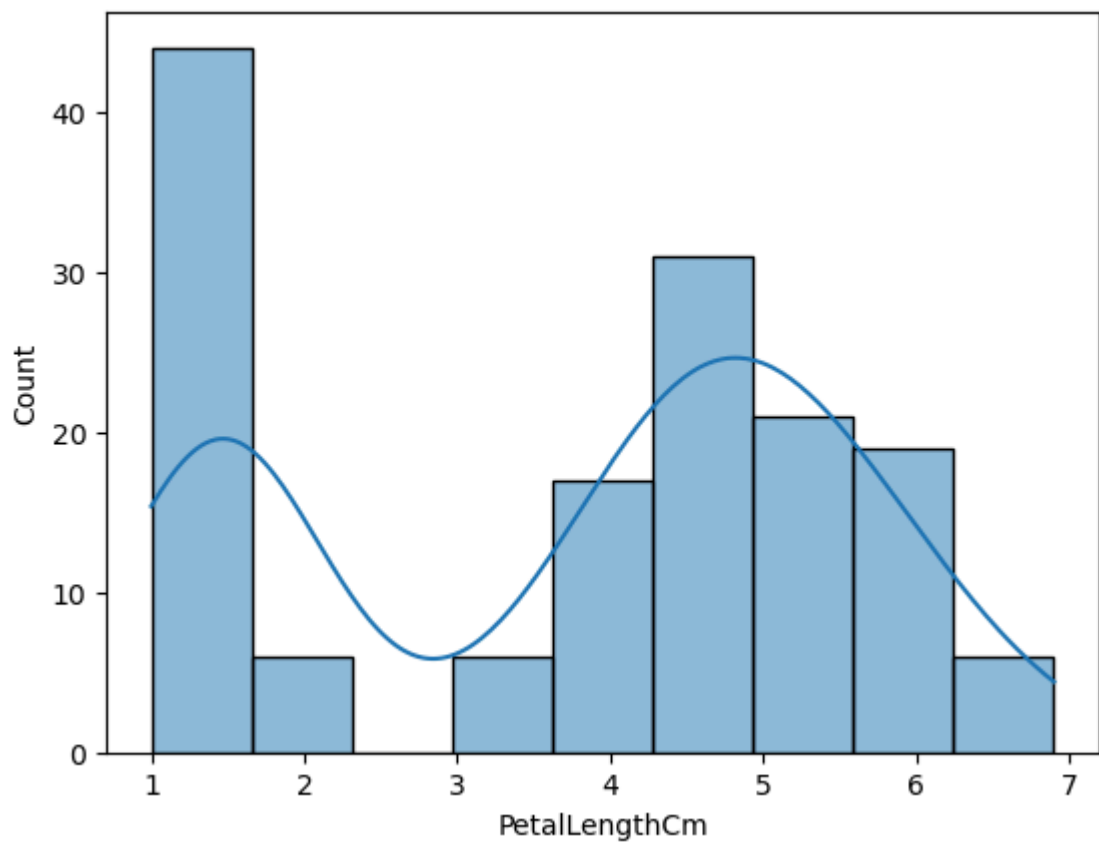
```
In [25]: sns.histplot(df["SepalLengthCm"], kde=True)
plt.show()
```



```
In [27]: sns.histplot(df["SepalWidthCm"], kde=True)
plt.show()
```



```
In [29]: sns.histplot(df["PetalLengthCm"], kde=True)
plt.show()
```



```
In [30]: sns.histplot(df["PetalWidthCm"], kde=True)  
plt.show()
```

