

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

df=pd.read_csv('/content/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

Next steps:

[Generate code with df](#)[New interactive sheet](#)

```
df.tail()
```

	sepal_length	sepal_width	petal_length	petal_width	species
145	6.7	3.0	5.2	2.3	Iris-virginica
146	6.3	2.5	5.0	1.9	Iris-virginica
147	6.5	3.0	5.2	2.0	Iris-virginica
148	6.2	3.4	5.4	2.3	Iris-virginica
149	5.9	3.0	5.1	1.8	Iris-virginica

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
 #   Column          Non-Null Count  Dtype  
---  -
 0   sepal_length    150 non-null   float64
 1   sepal_width     150 non-null   float64
 2   petal_length    150 non-null   float64
 3   petal_width     150 non-null   float64
 4   species         150 non-null   object 
dtypes: float64(4), object(1)
memory usage: 6.0+ KB
```

```
df.describe()
```

	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

```
df.dtypes
```

```
0
```

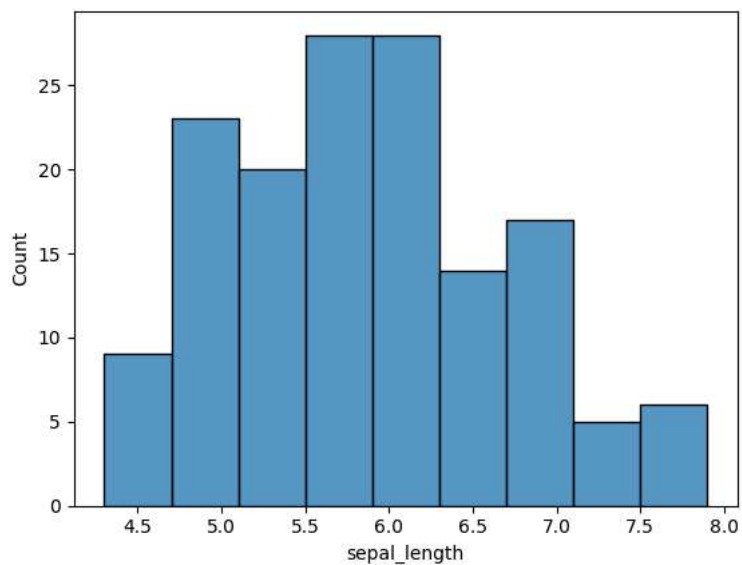
```
sepal_length float64
```

```
np.unique(df['species'])
```

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

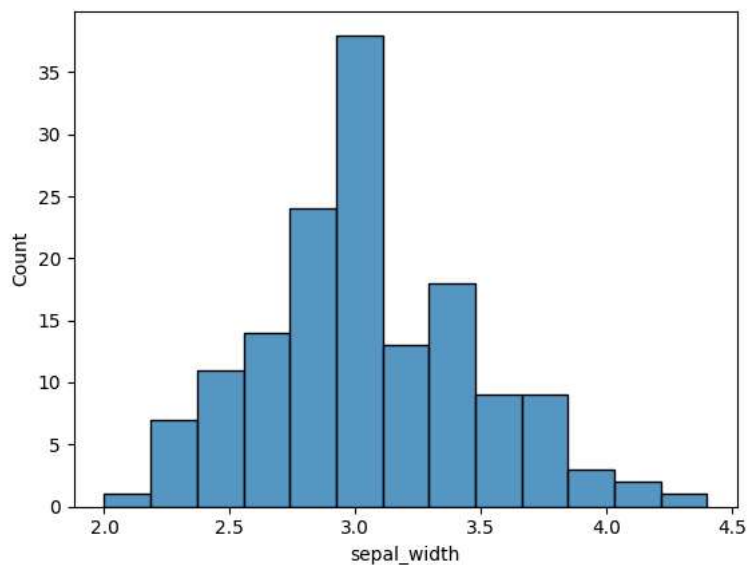
```
sns.histplot(df['sepal_length'])
```

```
species object  
<Axes: xlabel='sepal_length', ylabel='Count'>
```



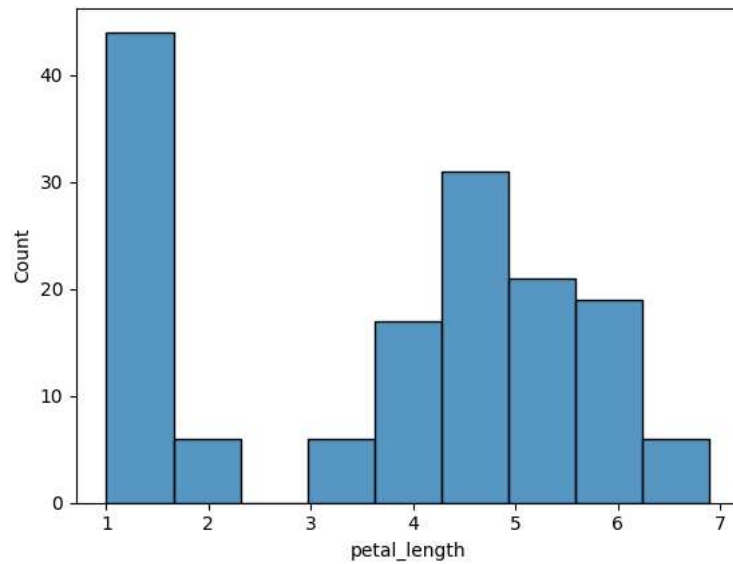
```
sns.histplot(df['sepal_width'])
```

```
<Axes: xlabel='sepal_width', ylabel='Count'>
```



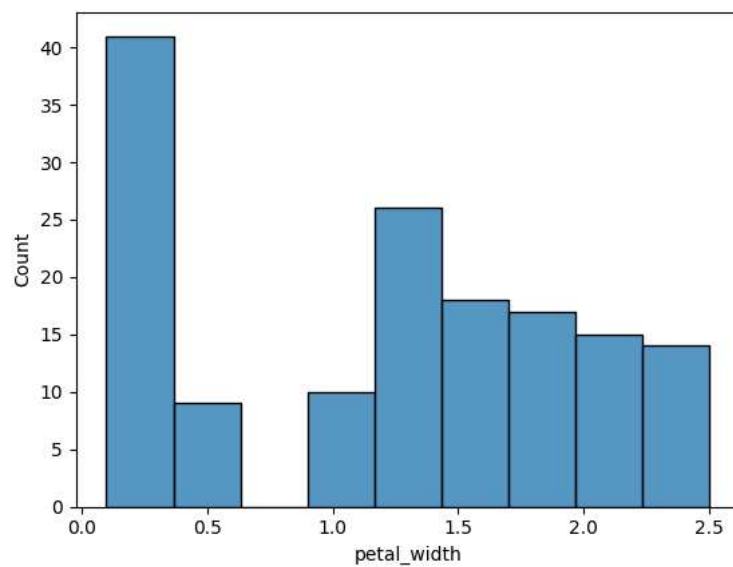
```
sns.histplot(df['petal_length'])
```

```
<Axes: xlabel='petal_length', ylabel='Count'>
```



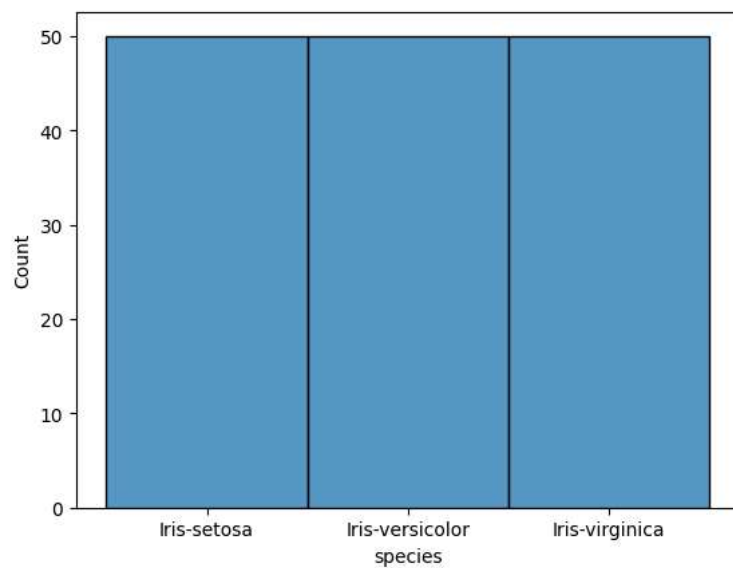
```
sns.histplot(df['petal_width'])
```

```
<Axes: xlabel='petal_width', ylabel='Count'>
```



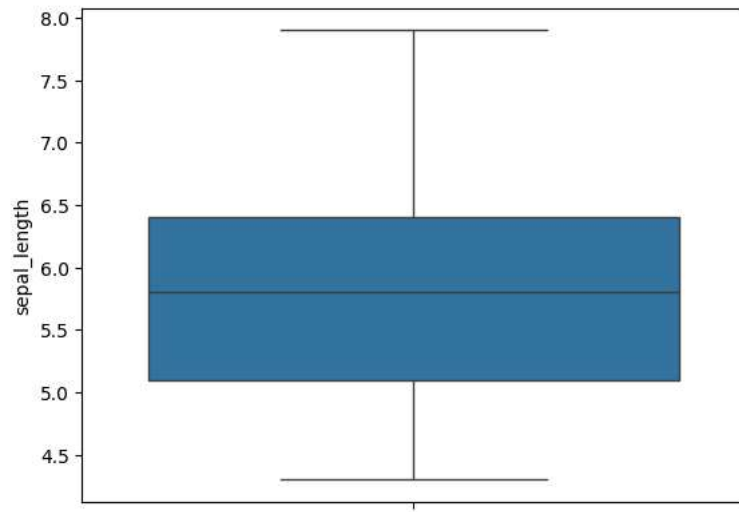
```
sns.histplot(df['species'])
```

```
<Axes: xlabel='species', ylabel='Count'>
```



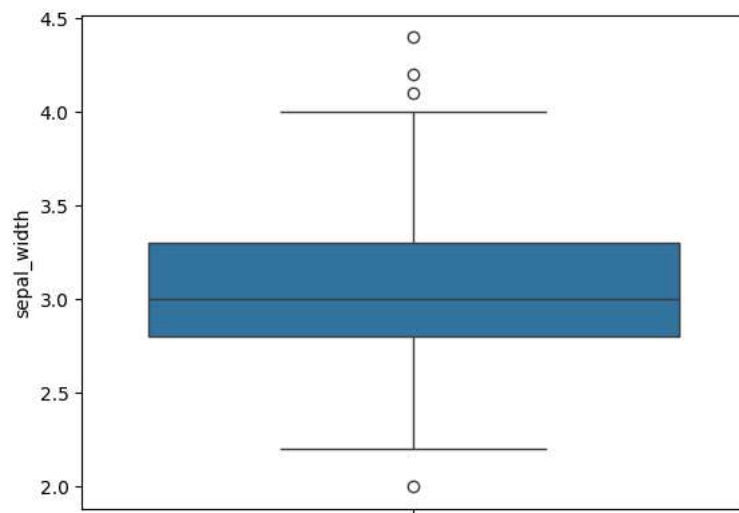
```
sns.boxplot(df['sepal_length'])
```

```
<Axes: ylabel='sepal_length'>
```



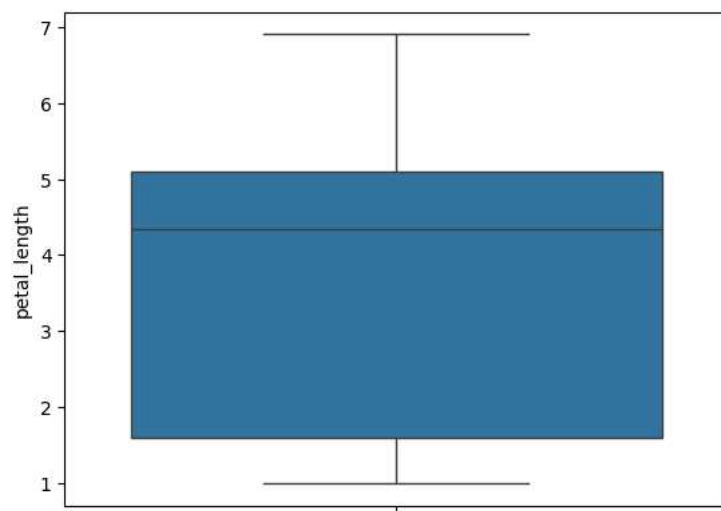
```
sns.boxplot(df['sepal_width'])
```

```
<Axes: ylabel='sepal_width'>
```



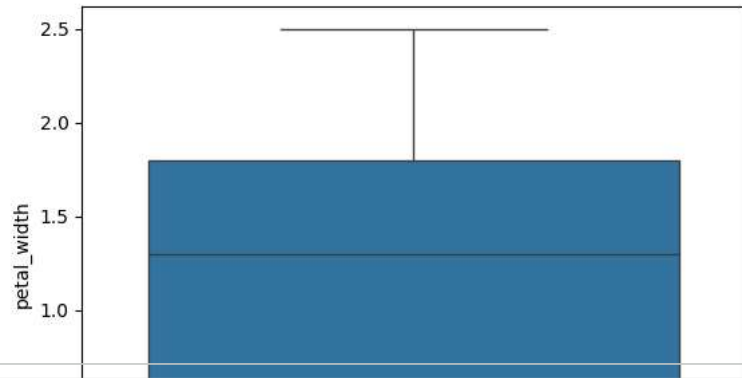
```
sns.boxplot(df['petal_length'])
```

```
<Axes: ylabel='petal_length'>
```



```
sns.boxplot(df['petal_width'])
```

<Axes: ylabel='petal_width'>



```
dataToPlot=[df['sepal_length'],df['sepal_width'],df['petal_length'],df['petal_width']]  
fig=plt.figure(figsize=(12,8))  
ax=fig.add_subplot(111)  
plt.boxplot(dataToPlot)  
plt.show()
```

