

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

```
In [3]: data = pd.read_csv('https://gist.githubusercontent.com/curran/a08a1080b88344b6
data
```

```
Out[3]:
```

	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 [4]: data.head()
```

```
Out[4]:
```

	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

```
In [5]: data.describe()
```

```
Out[5]:
```

	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000

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

```
In [6]: data.describe(include = 'object')
```

```
Out[6]:
```

	species
<b>count</b>	150
<b>unique</b>	3
<b>top</b>	setosa
<b>freq</b>	50

```
In [7]: data.isnull().sum()
```

```
Out[7]: sepal_length    0
sepal_width          0
petal_length         0
petal_width          0
species              0
dtype: int64
```

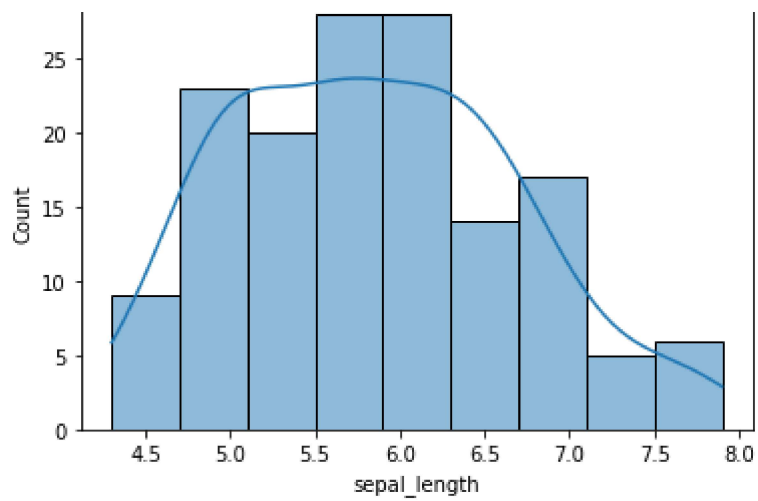
```
In [8]: print("\n\nThe features in the dataset are as follows : ")
print("1. Sepal length : ", data['sepal_length'].dtype)
print("2. Sepal width : ", data['sepal_width'].dtype)
print("3. Petal length : ", data['petal_length'].dtype)
print("4. Petal width : ", data['petal_width'].dtype)
print("5. Species : ", data['species'].dtype)
```

The features in the dataset are as follows :

1. Sepal length : float64
2. Sepal width : float64
3. Petal length : float64
4. Petal width : float64
5. Species : object

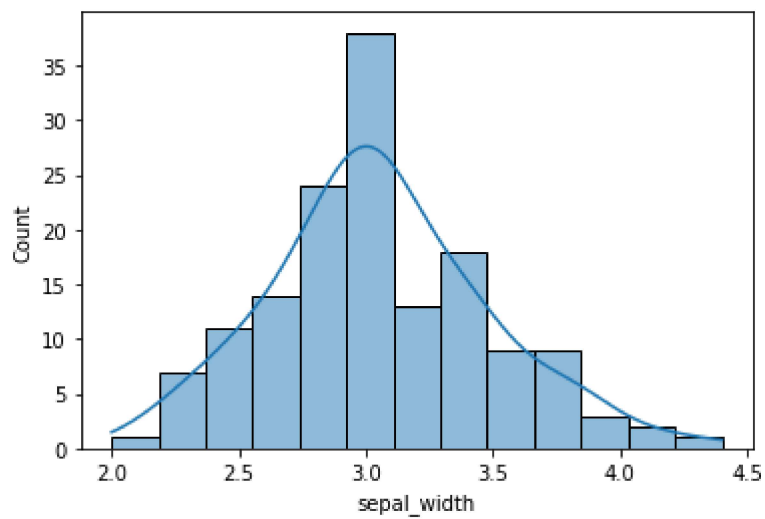
```
In [9]: sns.histplot(x = data['sepal_length'], kde=True)
```

```
Out[9]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe839f4d9d0>
```



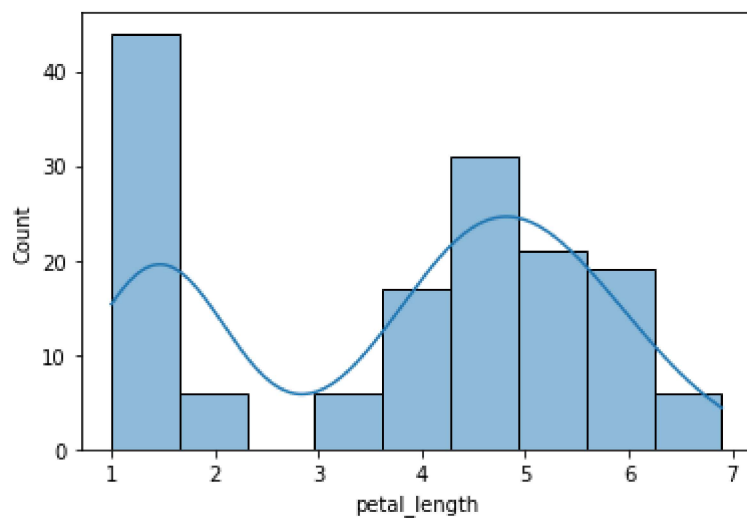
```
In [10]: sns.histplot(x = data['sepal_width'], kde=True)
```

```
Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe839343e90>
```



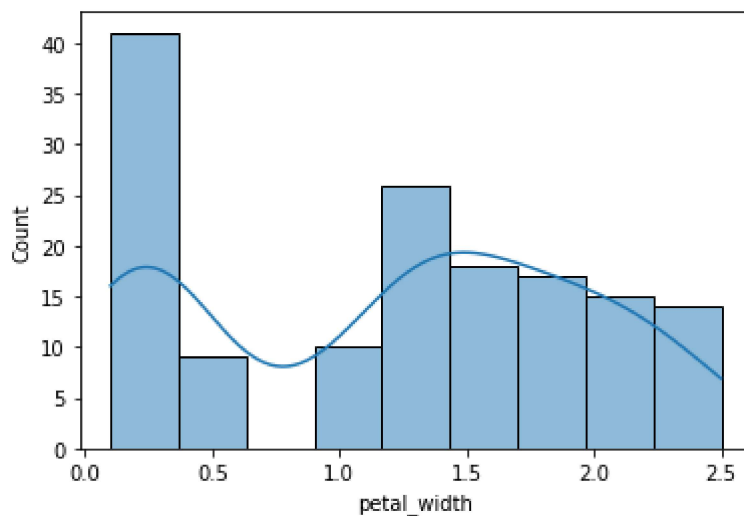
```
In [11]: sns.histplot(x = data['petal_length'], kde=True)
```

```
Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe836d341d0>
```



```
In [12]: sns.histplot(x = data['petal_width'], kde=True)
```

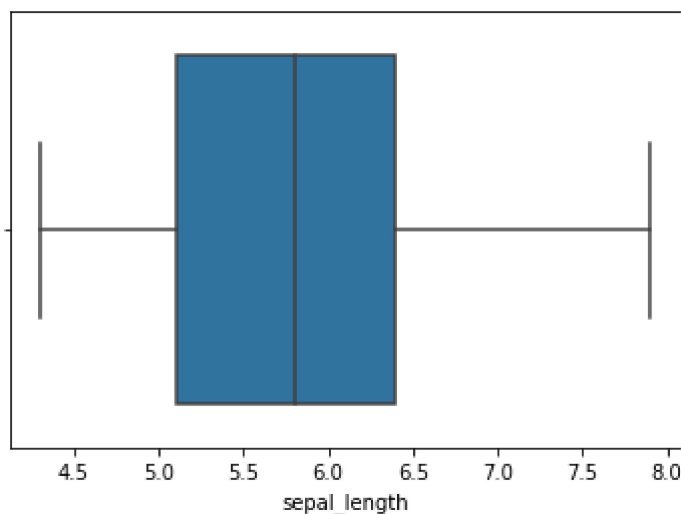
```
Out[12]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe836c64f50>
```



```
In [13]: sns.boxplot(data['sepal_length'])
```

/usr/local/lib/python3.7/dist-packages/seaborn/\_decorators.py:43: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.  
FutureWarning

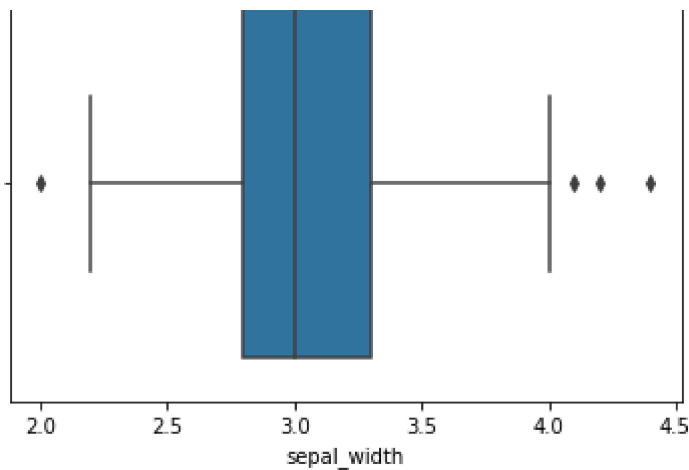
```
Out[13]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe836b8a8d0>
```



```
In [14]: sns.boxplot(data['sepal_width'])
```

/usr/local/lib/python3.7/dist-packages/seaborn/\_decorators.py:43: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.  
FutureWarning

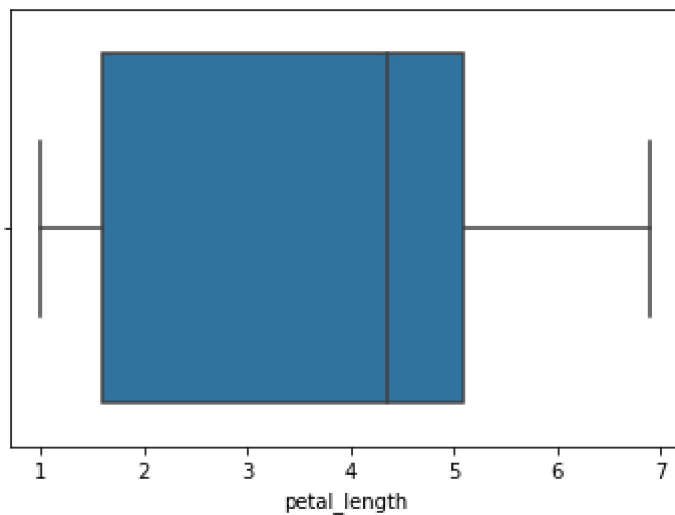
```
Out[14]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe836c79ed0>
```



In [15]: `sns.boxplot(data['petal_length'])`

/usr/local/lib/python3.7/dist-packages/seaborn/\_decorators.py:43: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.  
FutureWarning

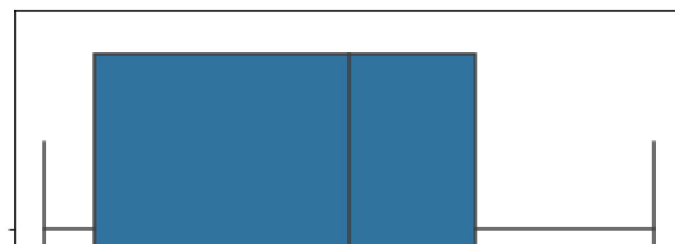
Out[15]: <matplotlib.axes.\_subplots.AxesSubplot at 0x7fe836bf8290>

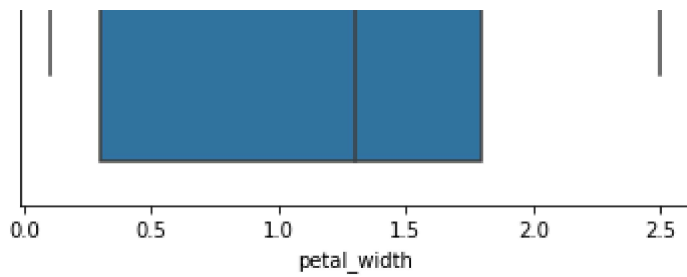


In [16]: `sns.boxplot(data['petal_width'])`

/usr/local/lib/python3.7/dist-packages/seaborn/\_decorators.py:43: FutureWarning: Pass the following variable as a keyword arg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misinterpretation.  
FutureWarning

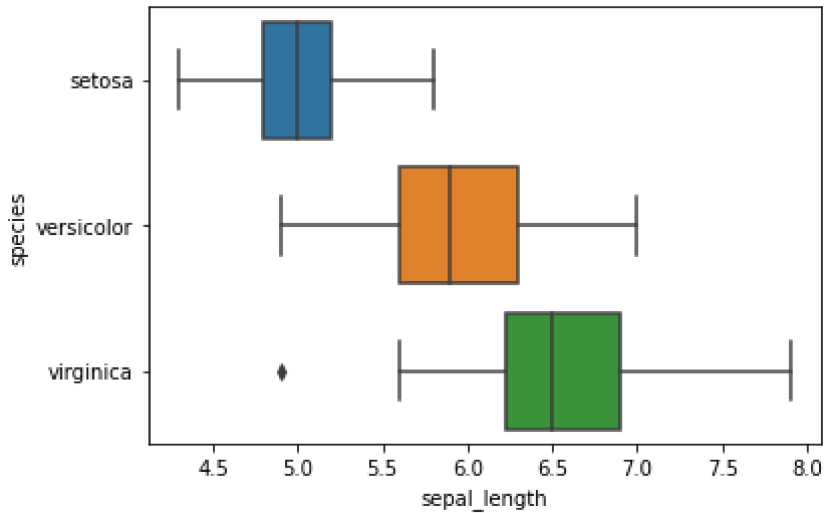
Out[16]: <matplotlib.axes.\_subplots.AxesSubplot at 0x7fe836a5f850>





```
In [17]: sns.boxplot(x='sepal_length',y='species',data=data)
```

```
Out[17]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe836a3ca90>
```



```
In [18]: sns.boxplot(x='petal_length',y='species',data=data)
```

```
Out[18]: <matplotlib.axes._subplots.AxesSubplot at 0x7fe83696b950>
```

