In [6]:

```
import matplotlib
matplotlib.__version__ #note:two underscore characters are used in __version__.
```

Out[6]:

```
'3.7.1'
```

In [7]:

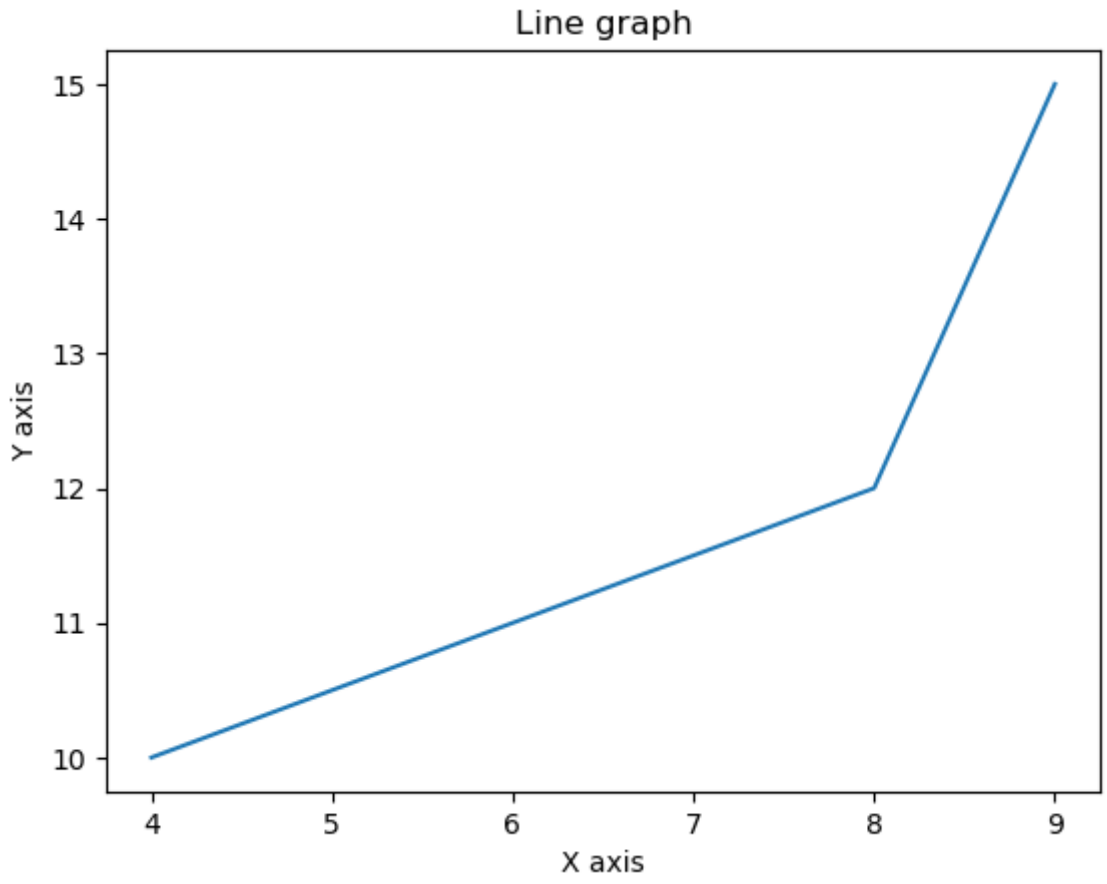
```
import seaborn as sns
sns.__version__
```

Out[7]:

```
'0.12.2'
```

In [12]:

```
#Line plot
from matplotlib import pyplot as plt
x=[4,8,9]
y=[10,12,15]
plt.plot(x,y)
plt.title("Line graph")
plt.ylabel("Y axis")
plt.xlabel("X axis")
plt.show()
```



In [14]:

```
import seaborn as sns
#loading dataset
data=sns.load_dataset("iris")
print(data)
```

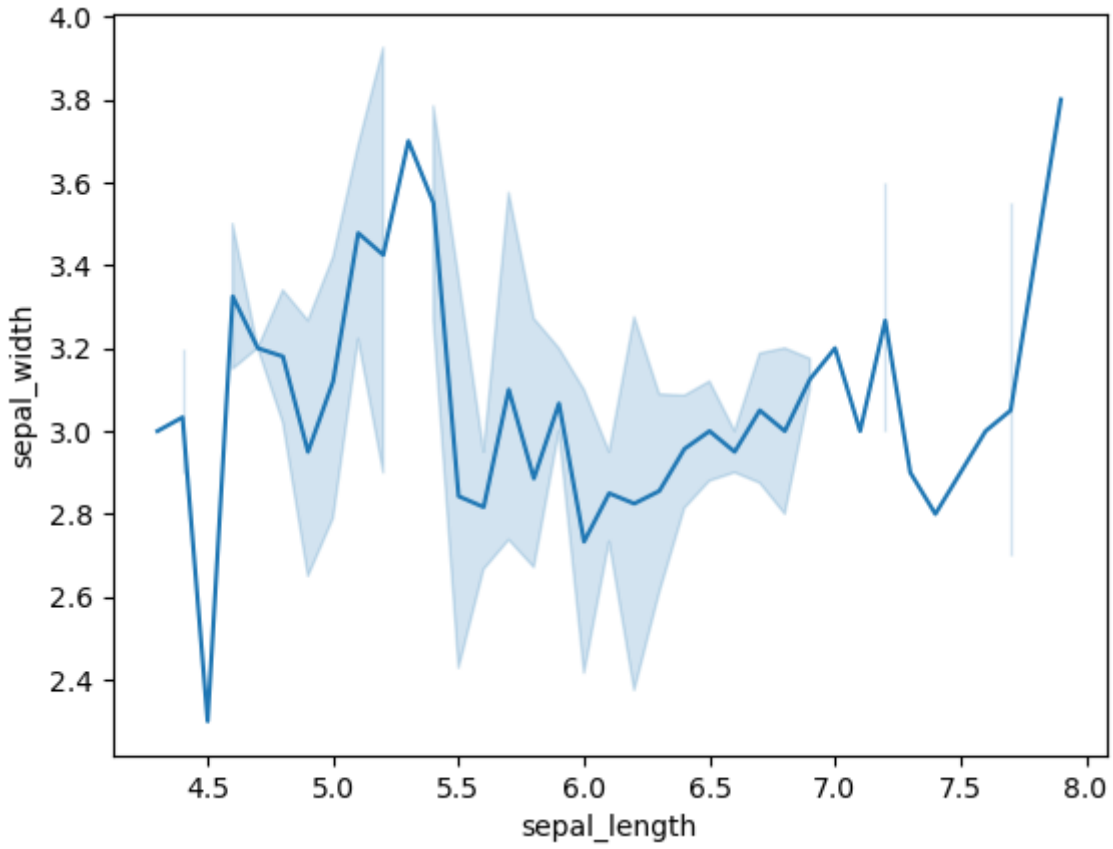
```
     sepal_length  sepal_width  petal_length  petal_width    species
0             5.1          3.5           1.4          0.2     setosa
1             4.9          3.0           1.4          0.2     setosa
2             4.7          3.2           1.3          0.2     setosa
3             4.6          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 x 5 columns]
```

In [24]:

```
import seaborn as sns
#loading dataset
data=sns.load_dataset("iris")
sns.lineplot(x="sepal_length",y="sepal_width",data=data)
```

Out[24]:

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



In [ ]:

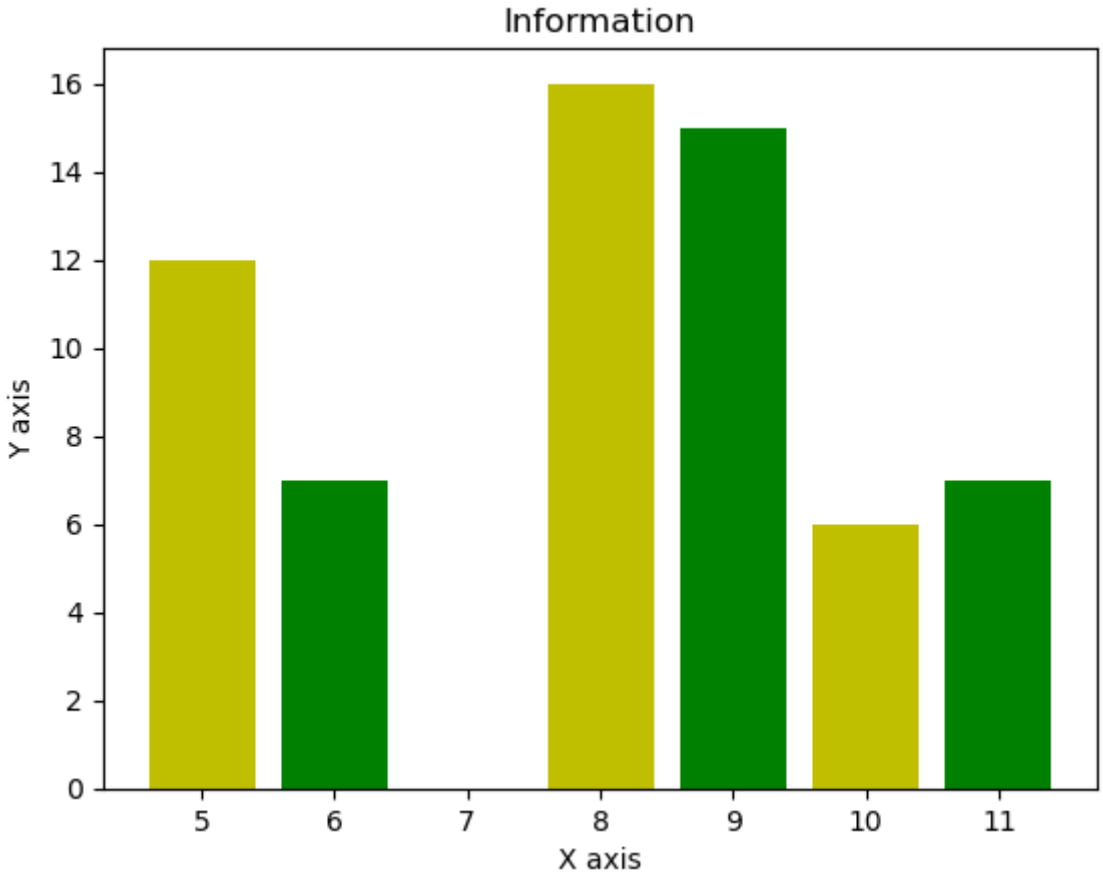
```
#bar plot
```

In [17]:

```
from matplotlib import pyplot as plt
from matplotlib import style
x=[5,8,10]
y=[12,16,6]
x2=[6,9,11]
y2=[7,15,7]
plt.bar(x,y,color="y",align="center")
plt.bar(x2,y2,color="g",align="center")
plt.title("Information")
plt.ylabel("Y axis")
plt.xlabel("X axis")
```

Out[17]:

```
Text(0.5, 0, 'X axis')
```

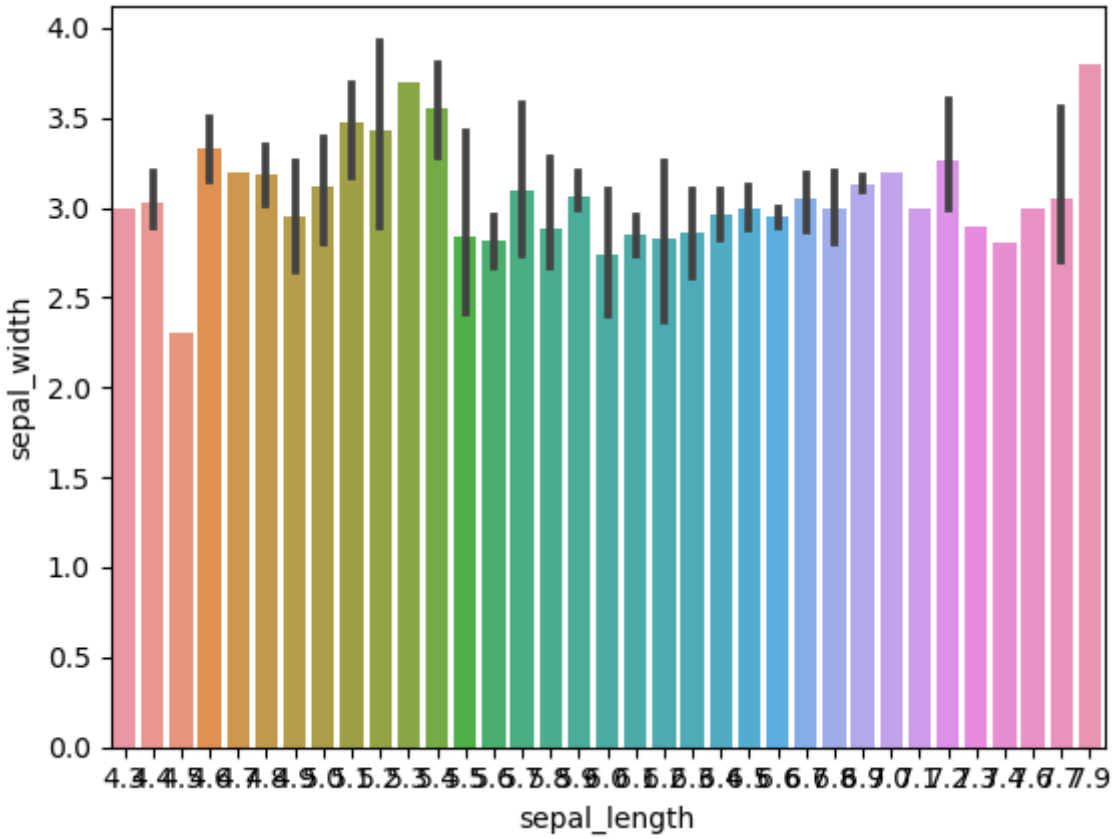


In [23]:

```
#importing packages
import seaborn as sns
import matplotlib.pyplot as plt
#loading dataset
data=sns.load_dataset("iris")
sns.barplot(x="sepal_length",y="sepal_width",data=data)
```

Out[23]:

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

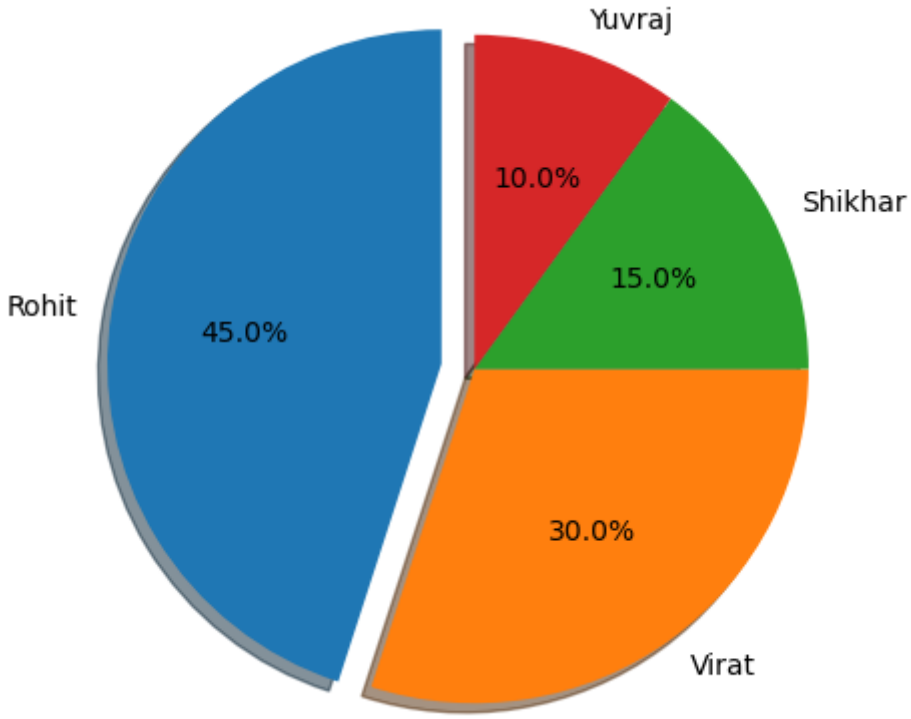


In [ ]:

```
# Pie chart
```

In [38]:

```
from matplotlib import pyplot as plt
#pie chart where the slice will be ordered and plotted counter-clockwise
Players=["Rohit","Virat","Shikhar","Yuvraj"]
Runs=[45,30,15,10]
explode=(0.1,0,0,0) #it "explode" the 1st slice
fig1,ax1=plt.subplots()
ax1.pie(Runs,explode=explode,labels=Players,shadow=True,autopct='%1.1f%%',startangle=90)
ax1.axis("equal")
# Equal aspect ratio ensurs that pie is drawn as a circle
plt.show()
```

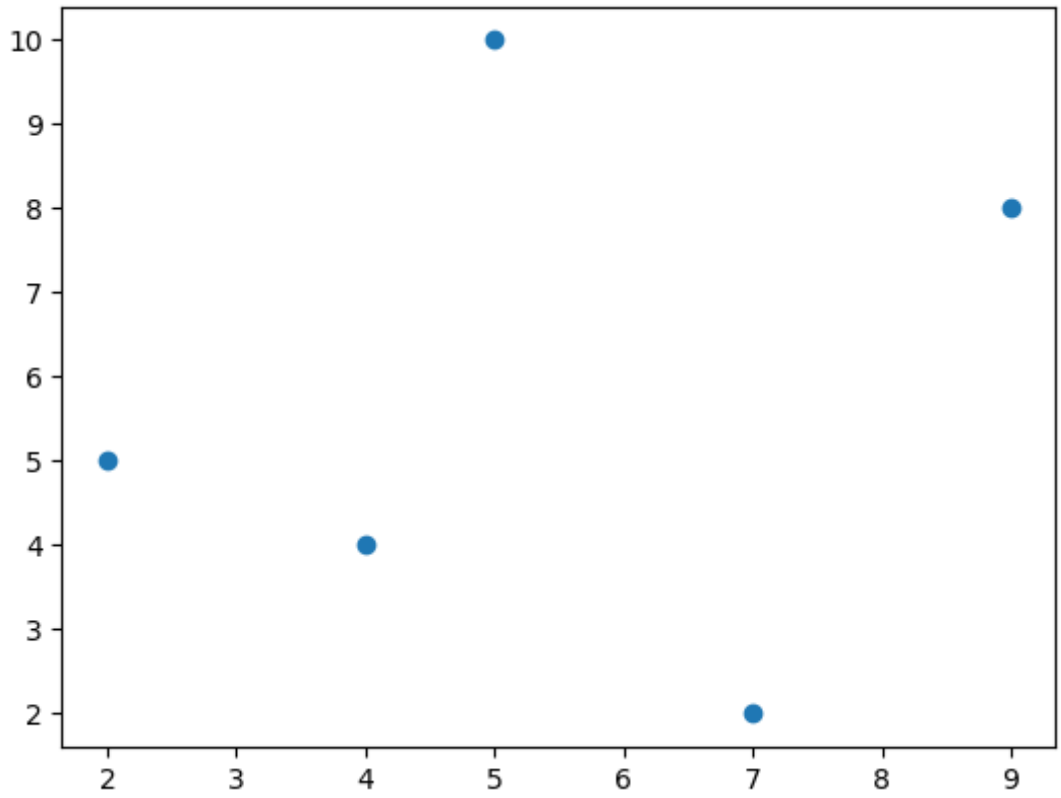


In [ ]:

```
# Scatter plot
```

In [13]:

```
import matplotlib.pyplot as plt
x=[5,2,9,4,7]
y=[10,5,8,4,2]
plt.scatter(x,y)
plt.show()
```

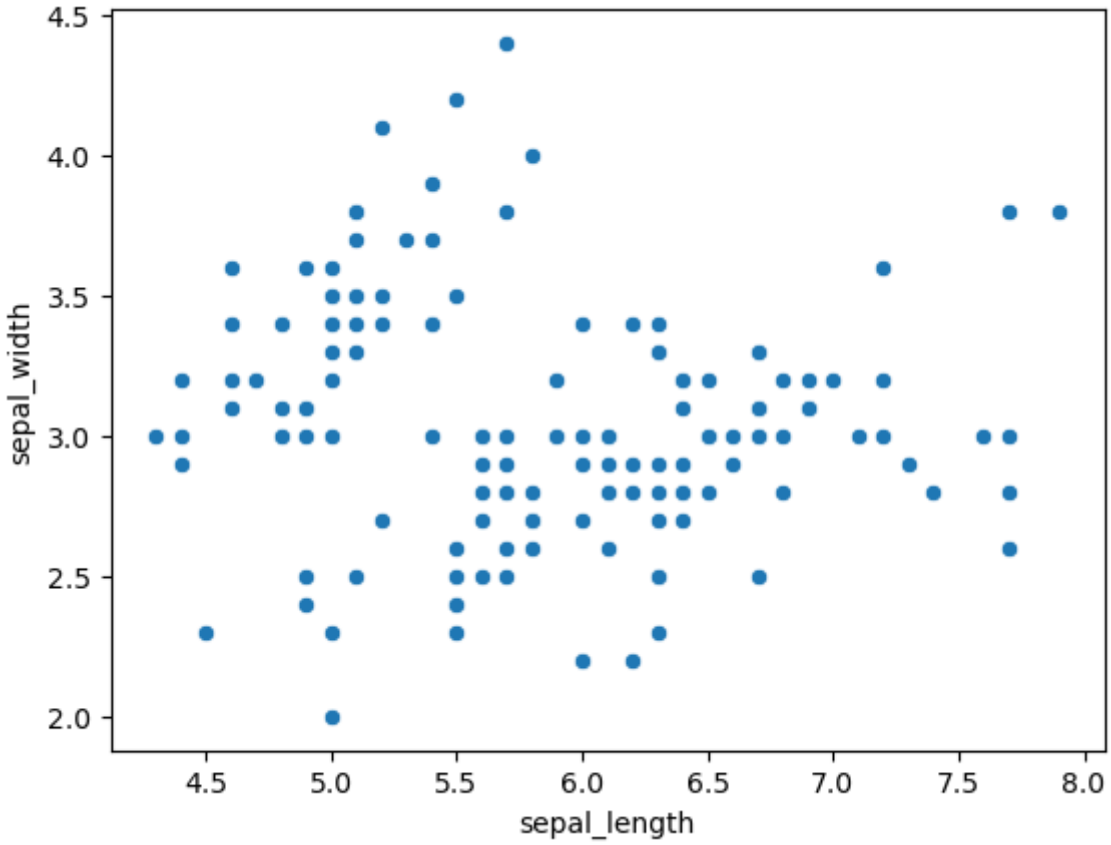


In [39]:

```
#importing packages
import seaborn as sns
import matplotlib.pyplot as plt

#Loading dataset
data=sns.load_dataset("iris")

sns.scatterplot(x="sepal_length",y="sepal_width",data=data)
plt.show
```

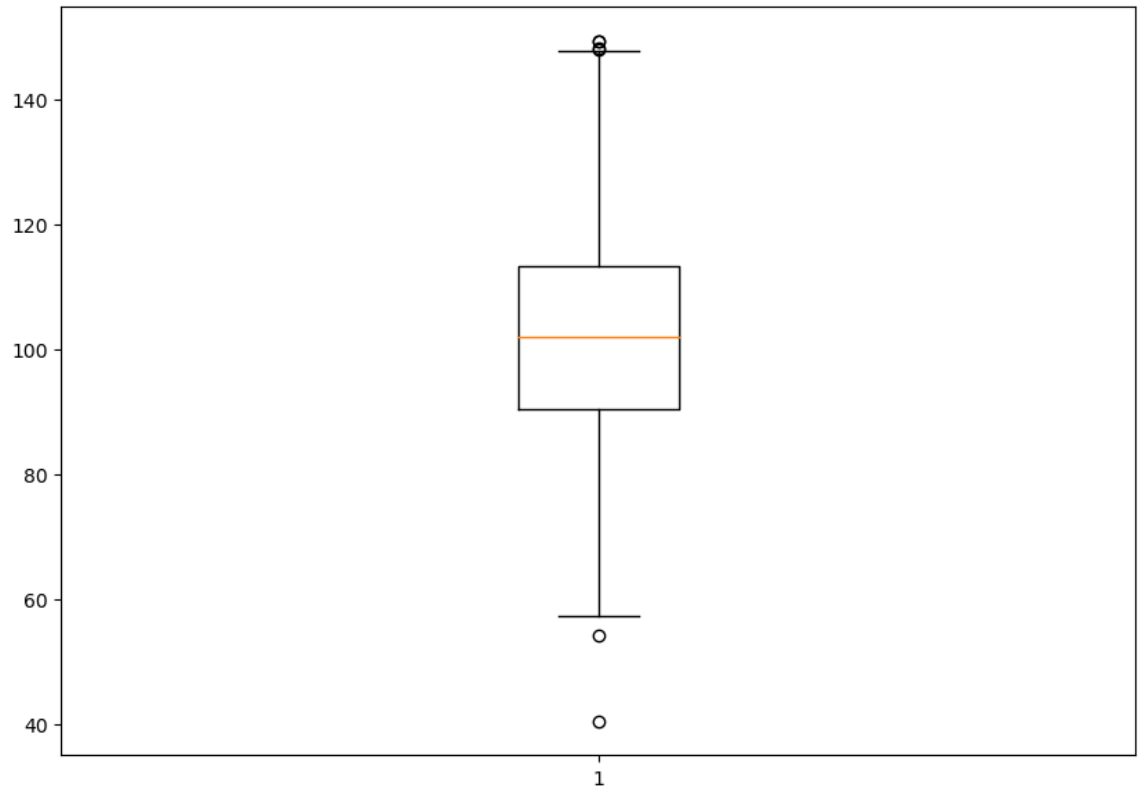
Out[39]:

```
<function matplotlib.pyplot.show(close=None, block=None)>
```



In [14]:

```
# box plot
import matplotlib.pyplot as plt
import numpy as np
data = np.random.normal(100, 20, 200)
fig = plt.figure(figsize =(10, 7))
plt.boxplot(data)
plt.show()
```

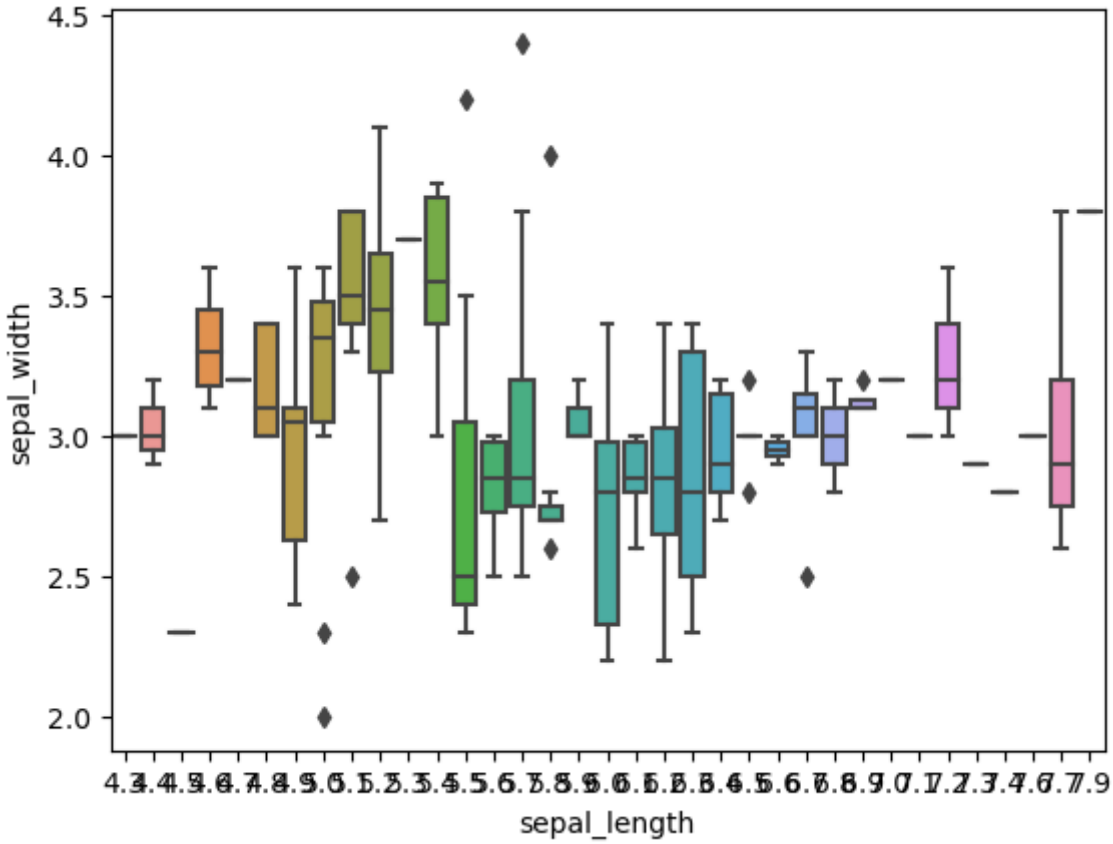


In [42]:

```
# Box plot
#importing packages
import seaborn as sns
import matplotlib.pyplot as plt

#loading dataset
data=sns.load_dataset("iris")

sns.boxplot(x="sepal_length",y="sepal_width",data=data)
plt.show
```

Out[42]:

```
<function matplotlib.pyplot.show(close=None, block=None)>
```



In [44]:

```
import seaborn as sns
# Load dataset
penguins=sns.load_dataset("penguins")
print(penguins)
```

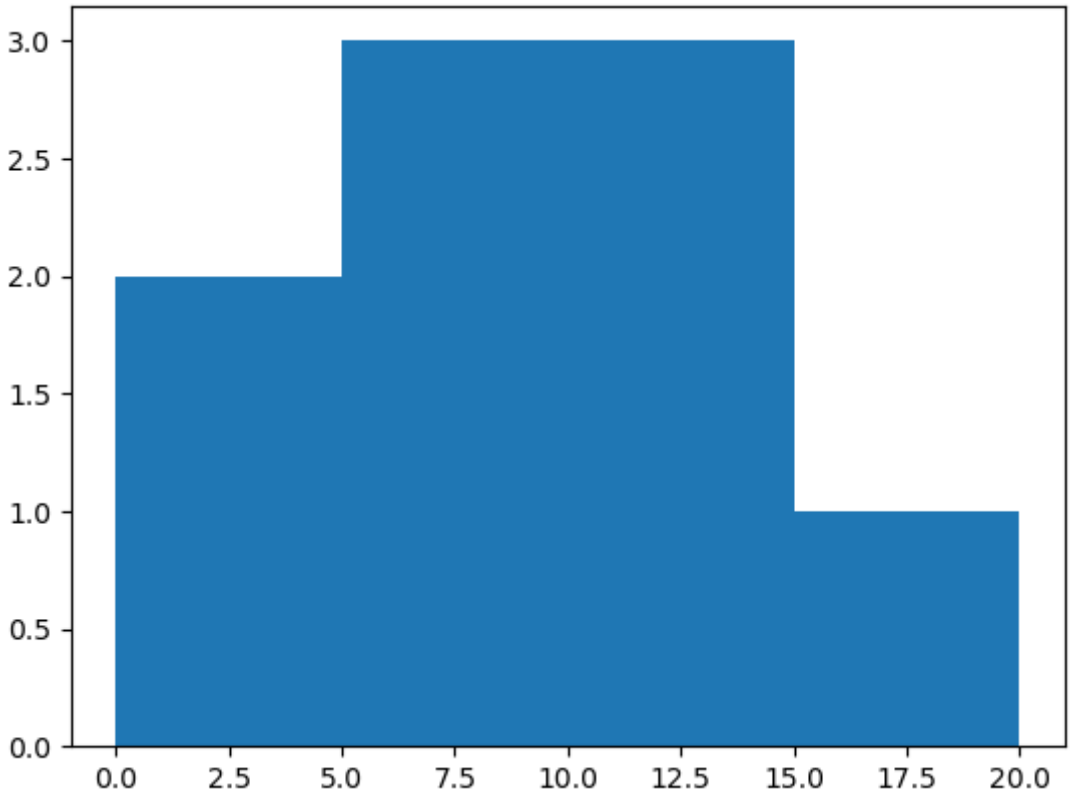
```
    species     island  bill_length_mm  bill_depth_mm  flipper_length_mm
\
0    Adelie  Torgersen            39.1           18.7              181.0
1    Adelie  Torgersen            39.5           17.4              186.0
2    Adelie  Torgersen            40.3           18.0              195.0
3    Adelie  Torgersen             NaN            NaN                NaN
4    Adelie  Torgersen            36.7           19.3              193.0
..      ...        ...             ...            ...                ...
339  Gentoo     Biscoe             NaN            NaN                NaN
340  Gentoo     Biscoe            46.8           14.3              215.0
341  Gentoo     Biscoe            50.4           15.7              222.0
342  Gentoo     Biscoe            45.2           14.8              212.0
343  Gentoo     Biscoe            49.9           16.1              213.0

     body_mass_g     sex
0         3750.0    Male
1         3800.0  Female
2         3250.0  Female
3            NaN     NaN
4         3450.0  Female
..           ...     ...
339          NaN     NaN
340       4850.0  Female
341       5750.0    Male
342       5200.0  Female
343       5400.0    Male

[344 rows x 7 columns]
```

In [11]:

```
import matplotlib.pyplot as plt
import numpy as np
y=np.array([1,3,5,7,6,14,12,15,11])
plt.hist(y,bins=[0,5,10,15,20])
```

Out[11]:

```
(array([2., 3., 3., 1.]),
 array([ 0.,  5., 10., 15., 20.]),
 <BarContainer object of 4 artists>)
```

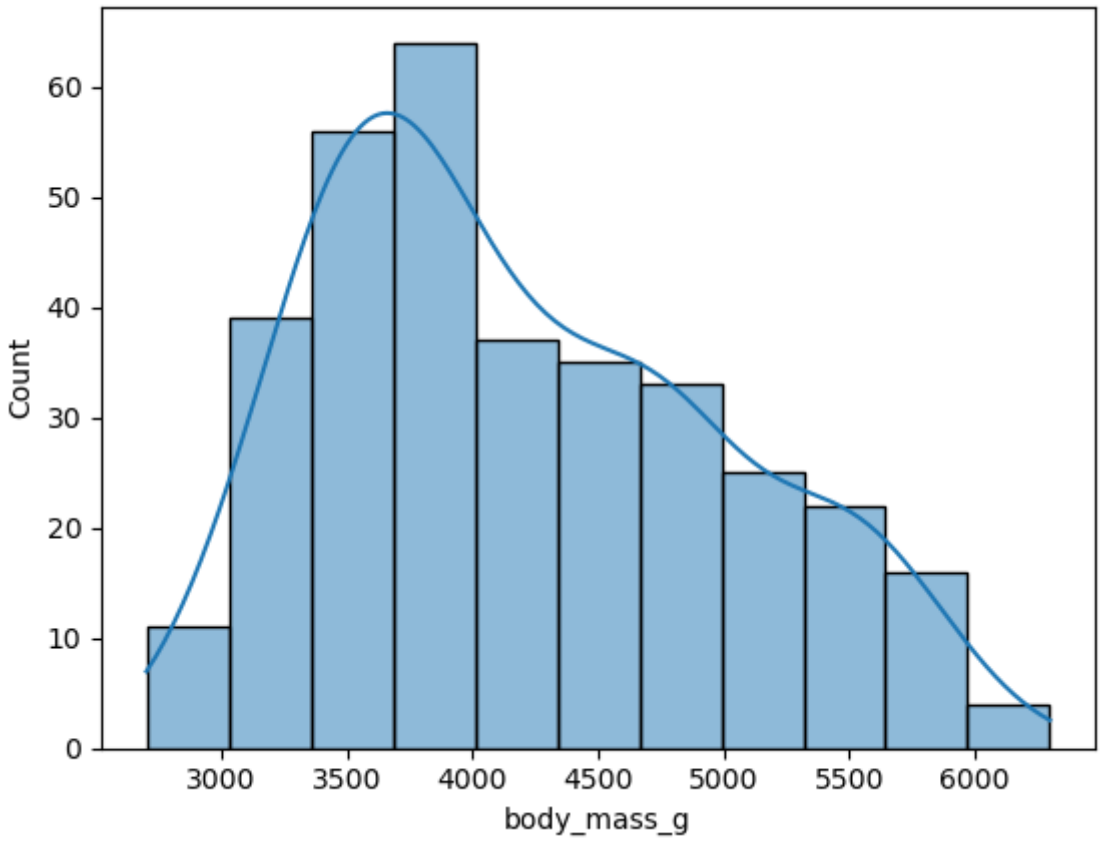


In [43]:

```
# histogram
import seaborn as sns
# Load dataset
penguins=sns.load_dataset("penguins")

#plot histogram
sns.histplot(data=penguins,x="body_mass_g",kde=True)
```

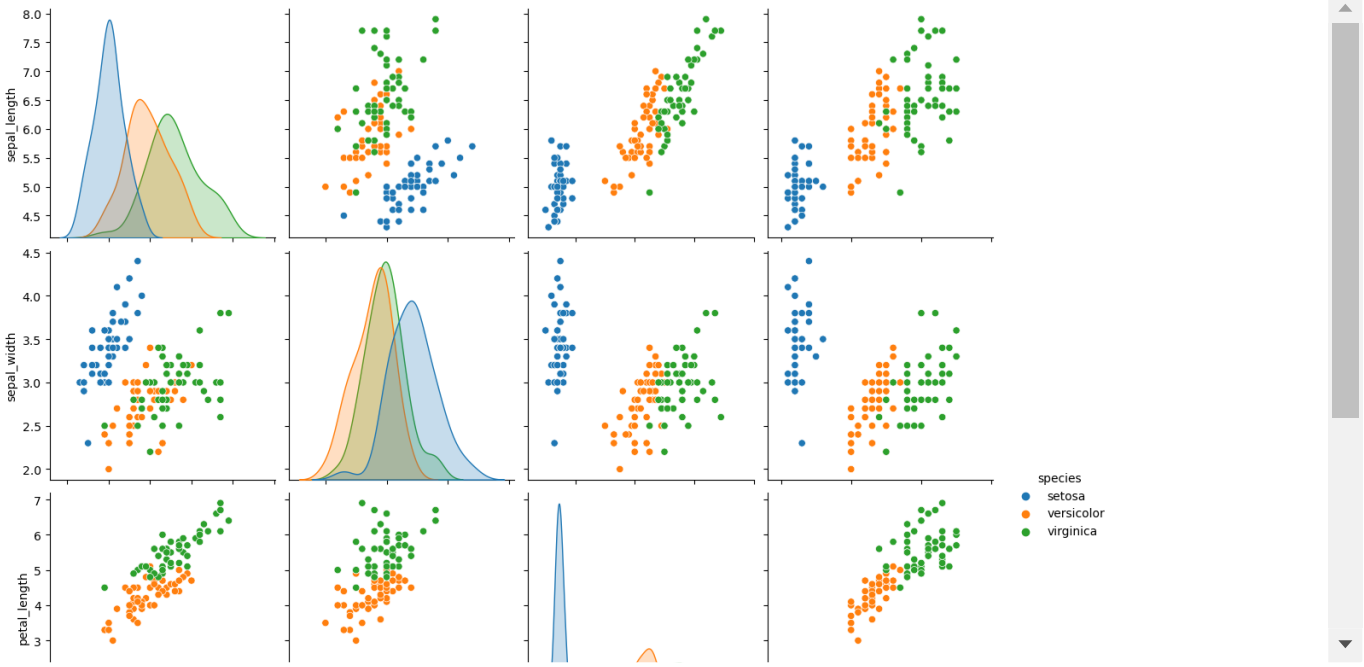
Out[43]:

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



In [47]:

```
#pair plot
import seaborn as sns
import matplotlib.pyplot as plt

#Loading dataset
df=sns.load_dataset("iris")

sns.pairplot(df,hue="species",height=3)
plt.show()
```



In [ ]: