In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np
```

In [2]:
```
iris=sns.load_dataset('iris')
```

In [3]:
```
iris
```

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]:
```
iris.head()
```

Out[4]:

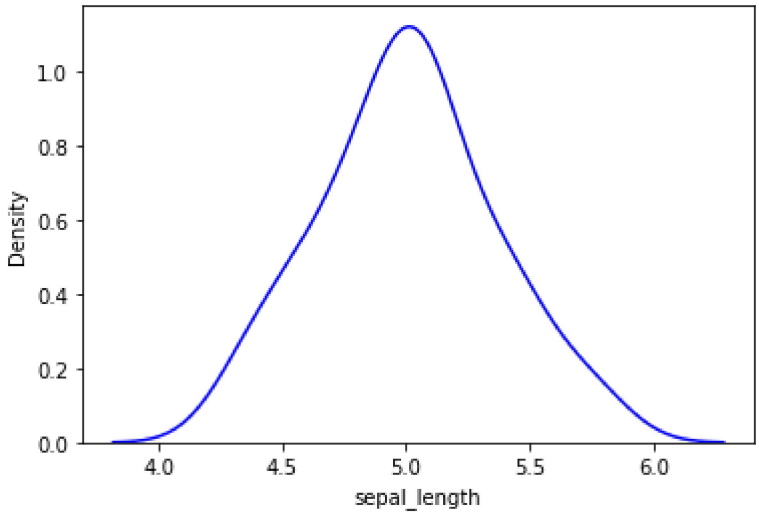
	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa

In [5]:
```
iris.species.unique()
```

Out[5]:
```
array(['setosa', 'versicolor', 'virginica'], dtype=object)
```

In [9]:
```
sns.kdeplot(iris.loc[(iris['species']=='setosa'),'sepal_length'],color='b',label=
```

Out[9]:
```
<AxesSubplot:xlabel='sepal_length', ylabel='Density'>
```



In [10]:
```
sns.kdeplot(iris.loc[(iris['species']=='setosa'),
                     'sepal_length'],color='b',Label='setosa')
sns.kdeplot(iris.loc[(iris['species']=='virginica'),
                     'sepal_length'],color='r',Label='virginica')
```

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:952: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  scout, = self.ax.plot([], [], **plot_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:995: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  artist, = ax.plot(support, density, **artist_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:952: Matplo
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support will be removed two minor releases later
  scout, = self.ax.plot([], [], **plot_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:995: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  artist, = ax.plot(support, density, **artist_kws)
```
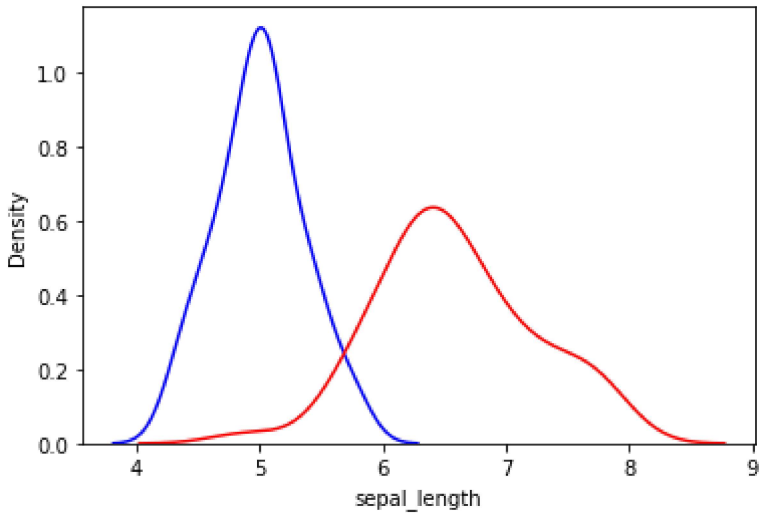
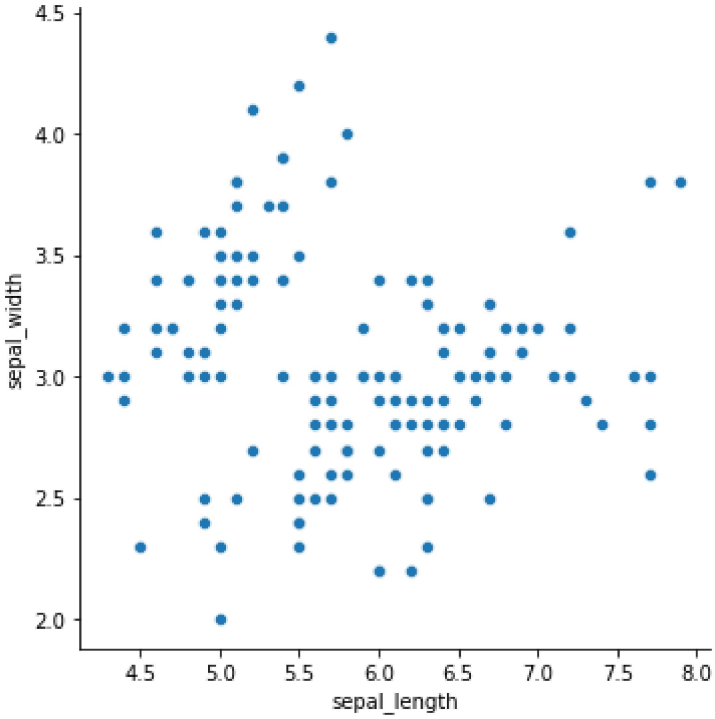

Out[10]:
```
<AxesSubplot:xlabel='sepal_length', ylabel='Density'>
```



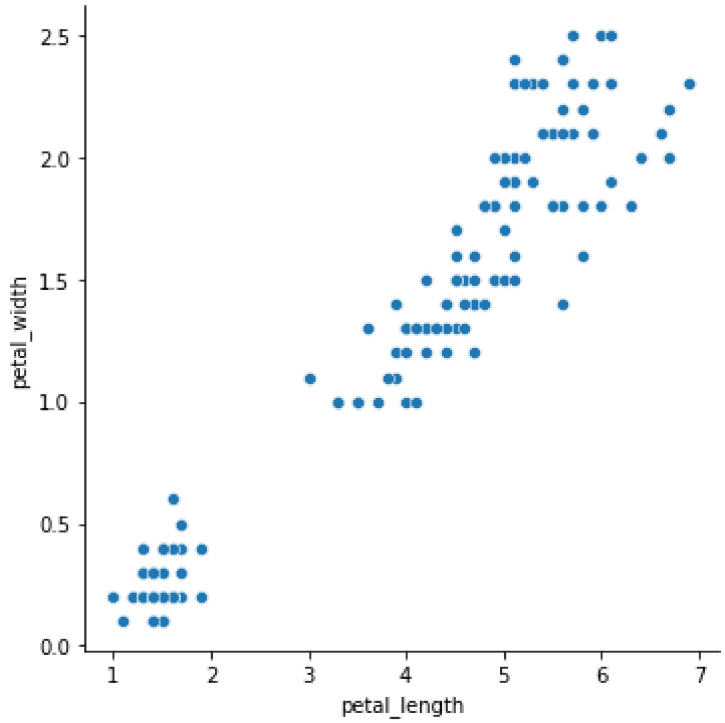
In [18]:
```
sns.relplot(data=iris,x="sepal_length",y="sepal_width")
```

Out[18]:
```
<seaborn.axisgrid.FacetGrid at 0x21182bf6f40>
```



In [19]:
```
sns.relplot(data=iris,x="petal_length",y="petal_width")
```

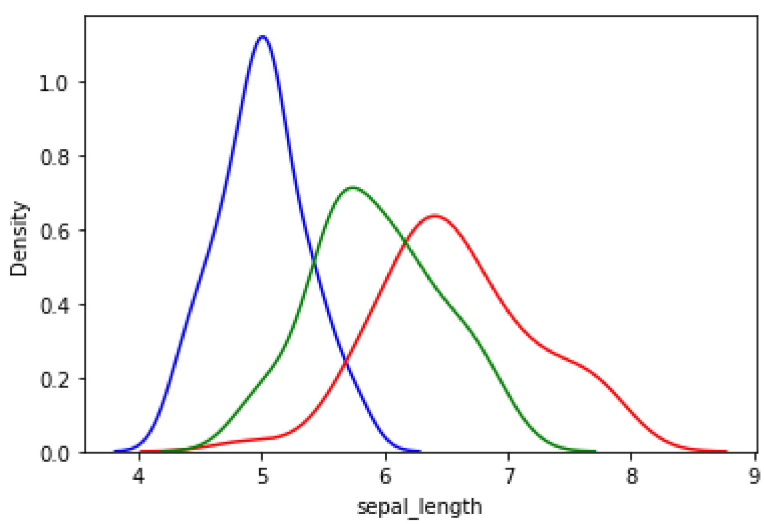
Out[19]:
```
<seaborn.axisgrid.FacetGrid at 0x21182c39d00>
```



In [22]:
```
sns.kdeplot(iris.loc[(iris['species']=='setosa'),
                    'sepal_length'],color='b',Label='setosa')
sns.kdeplot(iris.loc[(iris['species']=='virginica'),
                    'sepal_length'],color='r',Label='virginica')
sns.kdeplot(iris.loc[(iris['species']=='versicolor'),
                    'sepal_length'],color='g',Label='versicolor')
```

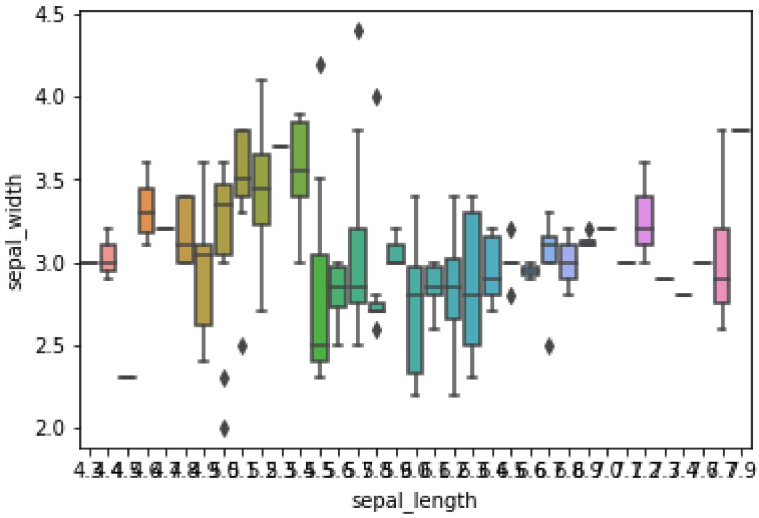
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:952: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  scout, = self.ax.plot([], [], **plot_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:995: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  artist, = ax.plot(support, density, **artist_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:952: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  scout, = self.ax.plot([], [], **plot_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:995: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  artist, = ax.plot(support, density, **artist_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:952: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  scout, = self.ax.plot([], [], **plot_kws)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:995: Matplo
tlibDeprecationWarning: Case-insensitive properties were deprecated in 3.3 and
support will be removed two minor releases later
  artist, = ax.plot(support, density, **artist_kws)
```

Out[22]: <AxesSubplot:xlabel='sepal_length', ylabel='Density'>



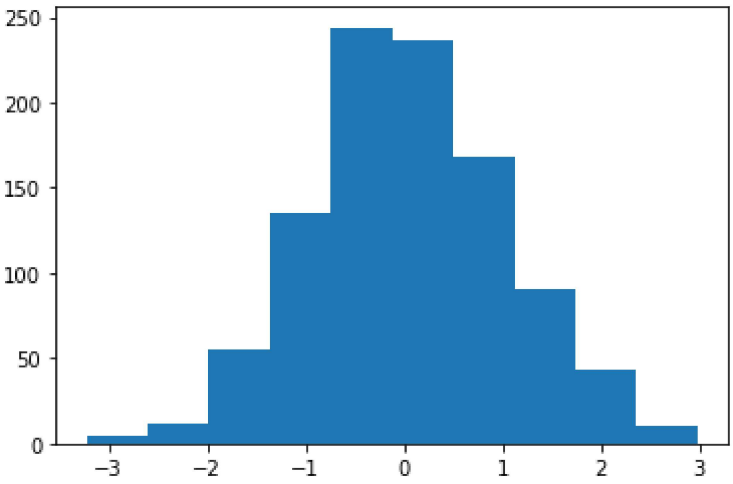
In [24]:
```
sns.boxplot(x='sepal_length',y='sepal_width',data=iris)
```

Out[24]:
```
<AxesSubplot:xlabel='sepal_length', ylabel='sepal_width'>
```

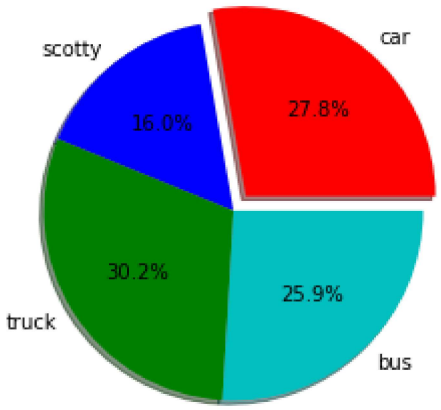


In [29]:
```
iris=np.random.randn(1000)
plt.hist(iris)
```

Out[29]:
```
(array([  5.,  12.,  55., 135., 244., 237., 168.,  91.,  43.,  10.]),
 array([-3.22429566, -2.60339065, -1.98248564, -1.36158063, -0.74067562,
        -0.11977061,  0.50113439,  1.1220394 ,  1.74294441,  2.36384942,
         2.98475443]),
 <BarContainer object of 10 artists>)
```



In [61]:
```
labels='car','scotty','truck','bus'
sizes=[225,130,245,210]
colors=['r','b','g','c']
explode=(0.1,0,0,0)
plt.pie(sizes,explode=explode,labels=labels,colors=colors,autopct='%1.1f%%',shadc
plt.axis('equal')
plt.show()
```



In [ ]:
```
```