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

```
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

```
df.shape
```

```
(150, 5)
```

```
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
```

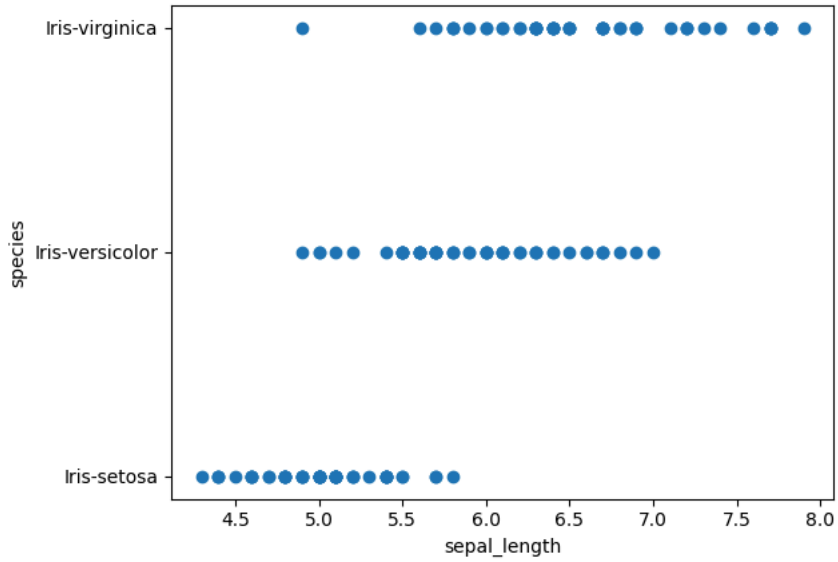
```
df.isnull().sum()
```

	0
sepal_length	0
sepal_width	0
petal_length	0
petal_width	0
species	0

dtype: int64

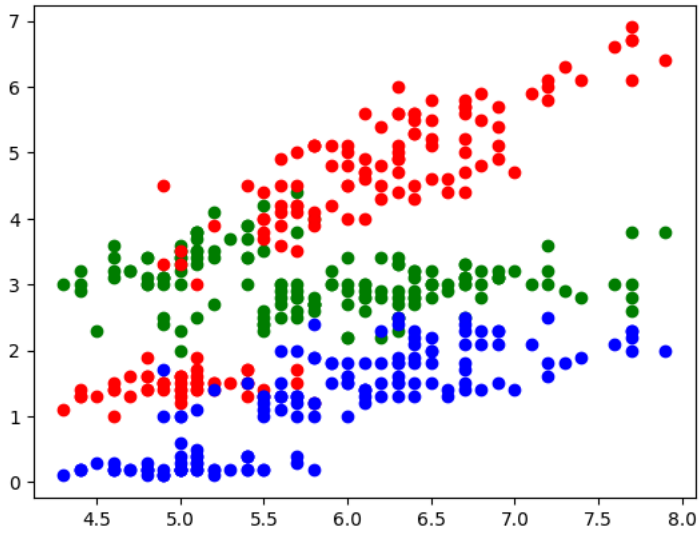
```
plt.scatter(df.sepal_length,df.species)
plt.xlabel("sepal_length")
plt.ylabel("species")
```

```
Text(0, 0.5, 'species')
```



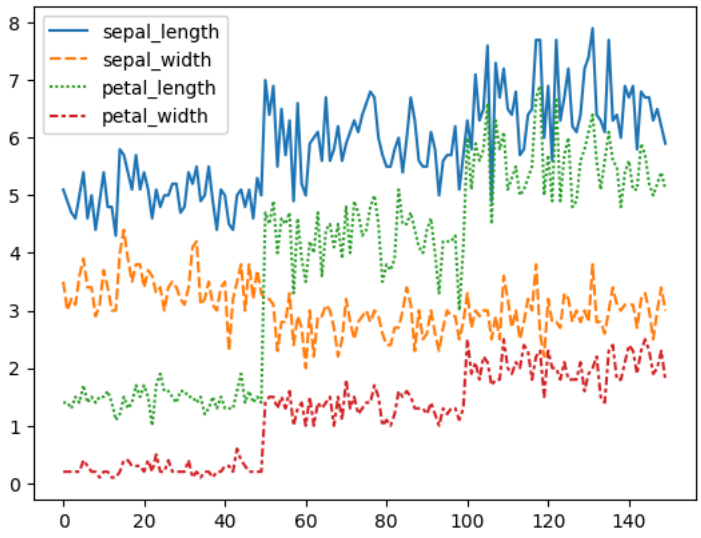

```
plt.scatter(df.sepal_length,df.sepal_width,color='g')
plt.scatter(df.sepal_length,df.petal_length,color='r')
plt.scatter(df.sepal_length,df.petal_width,color='b')
```

```
<matplotlib.collections.PathCollection at 0x7d182d24d850>
```



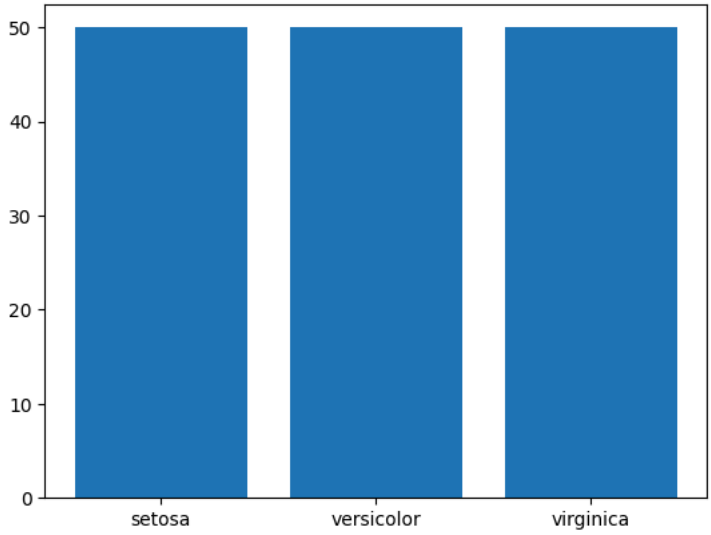

```
sns.lineplot(data=df)
```

```
<Axes: >
```



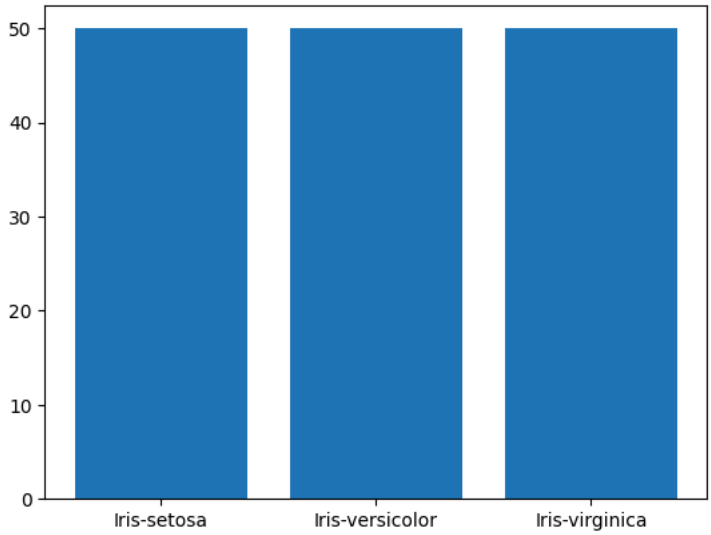
```
family=['setosa','versicolor','virginica']
count=[50,50,50]
plt.bar(family,count)
```

```
<BarContainer object of 3 artists>
```



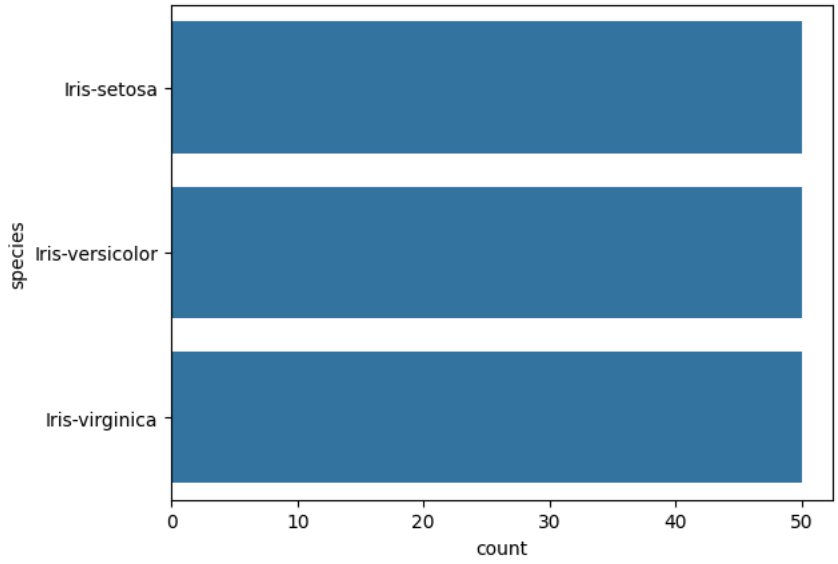

```
plt.bar(df.species.value_counts().index,df.species
.value_counts())
```

```
<BarContainer object of 3 artists>
```



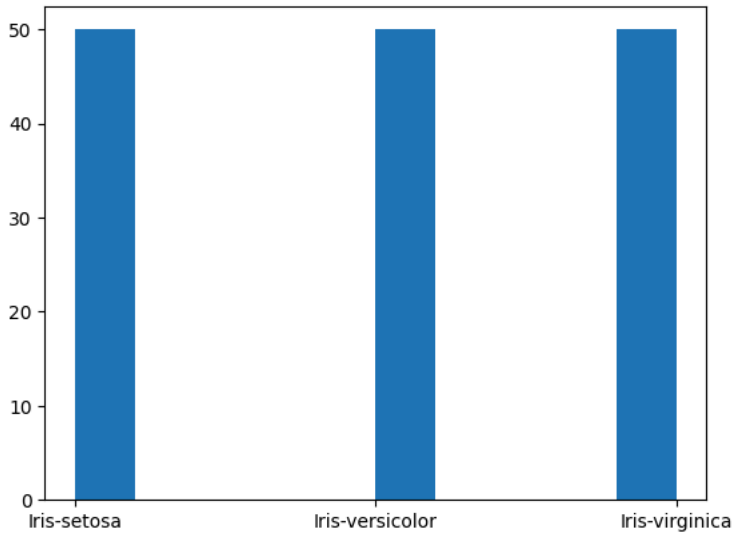

```
sns.countplot(df.species)
```

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



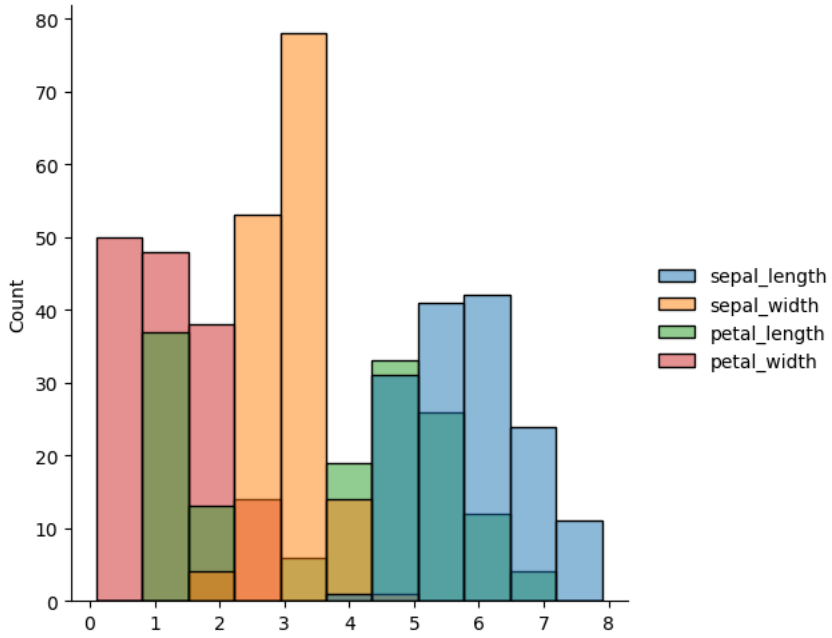
```
plt.hist(df.species)
```

```
(array([50.,  0.,  0.,  0.,  0., 50.,  0.,  0.,  0., 50.]),
 array([0. , 0.2, 0.4, 0.6, 0.8, 1. , 1.2, 1.4, 1.6, 1.8, 2. ]),
 <BarContainer object of 10 artists>)
```



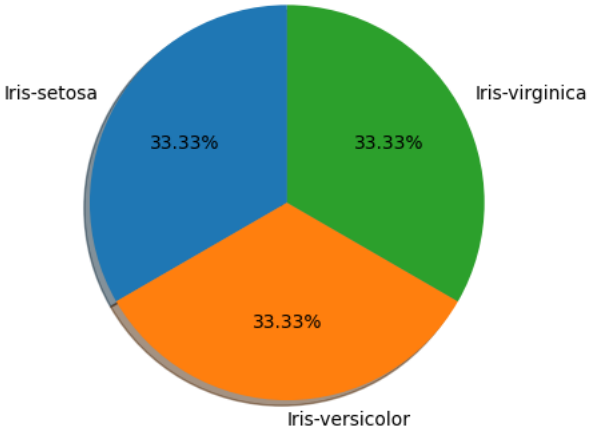

```
sns.displot(data=df)
```

```
<seaborn.axisgrid.FacetGrid at 0x7d182abb7210>
```



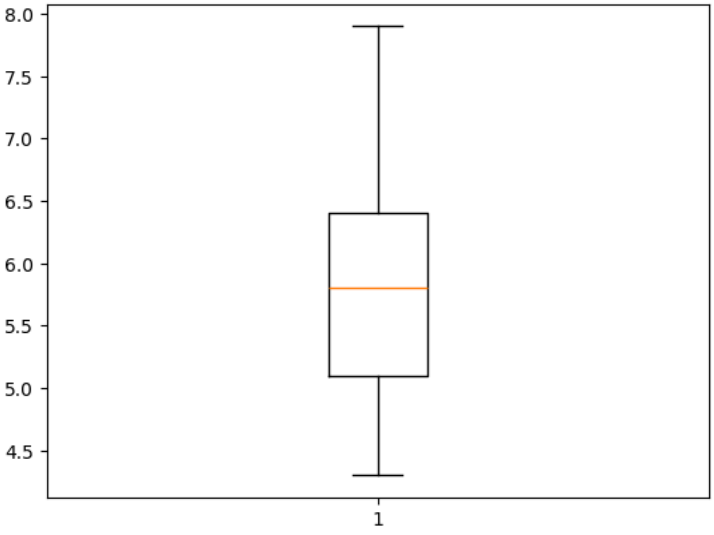

```
plt.pie(df.species.value_counts(),labels=df.species.value_counts().index,autopct='%1.2f%%',startangle=90,shadow=True)
```

```
([<matplotlib.patches.Wedge at 0x7d182cd0be10>,
  <matplotlib.patches.Wedge at 0x7d182cdc4950>,
  <matplotlib.patches.Wedge at 0x7d182cdc6c10>],
 [Text(-0.9526279613277876, 0.5499999702695114, 'Iris-setosa'),
  Text(1.0298943251329445e-07, -1.0999999999999954, 'Iris-versicolor'),
  Text(0.9526278583383436, 0.5500001486524351, 'Iris-virginica')],
 [Text(-0.5196152516333387, 0.29999998378336984, '33.33%'),
  Text(5.61760540981606e-08, -0.5999999999999974, '33.33%'),
  Text(0.5196151954572783, 0.3000000810831464, '33.33%')])
```



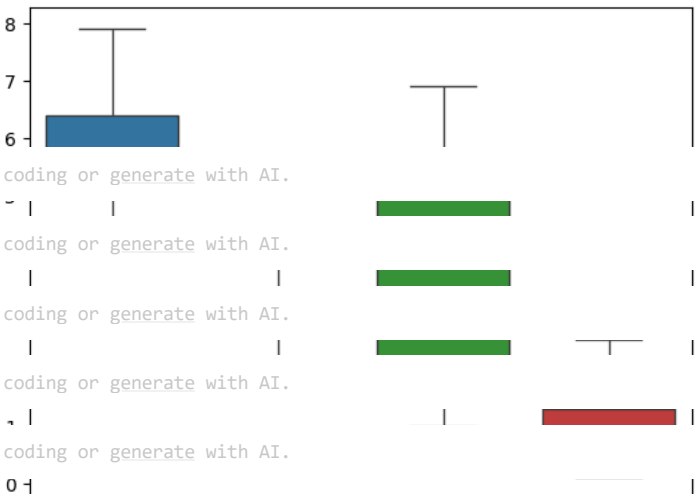

```
plt.boxplot(df.sepal_length)
```

```
{'whiskers': [<matplotlib.lines.Line2D at 0x7d1829a23b50>,
  <matplotlib.lines.Line2D at 0x7d1829a28690>],
 'caps': [<matplotlib.lines.Line2D at 0x7d1829a29290>,
  <matplotlib.lines.Line2D at 0x7d1829a29f10>],
 'boxes': [<matplotlib.lines.Line2D at 0x7d1829a233d0>],
 'medians': [<matplotlib.lines.Line2D at 0x7d1829a2a8d0>],
 'fliers': [<matplotlib.lines.Line2D at 0x7d1829a2b3d0>],
 'means': []}
```




```
sns.boxplot(data=df)
```

<Axes: >



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