In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
df=pd.read_csv("/home/student/Desktop/Iris.csv")
df
```

Out[1]:

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa
...	...	...	...	...	...	...
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-virginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica
148	149	6.2	3.4	5.4	2.3	Iris-virginica
149	150	5.9	3.0	5.1	1.8	Iris-virginica

150 rows × 6 columns

In [2]:
```
irisSet=(df['Species']=="Iris-setosa")
print("Iris-setosa")
print(df[irisSet].describe())
```

```
Iris-setosa
             Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidt
hCm
count  50.00000       50.00000     50.000000      50.000000       50.00
000
mean   25.50000        5.00600      3.418000       1.464000        0.24
400
std    14.57738        0.35249      0.381024       0.173511        0.10
721
min     1.00000        4.30000      2.300000       1.000000        0.10
000
25%    13.25000        4.80000      3.125000       1.400000        0.20
000
50%    25.50000        5.00000      3.400000       1.500000        0.20
000
75%    37.75000        5.20000      3.675000       1.575000        0.30
000
max    50.00000        5.80000      4.400000       1.900000        0.60
000
```

In [3]:
```
irisVer=(df['Species']=="Iris-versicolor")
print("Iris-versicolor")
print(df[irisVer].describe())
```

```
Iris-versicolor
             Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWid
thCm
```

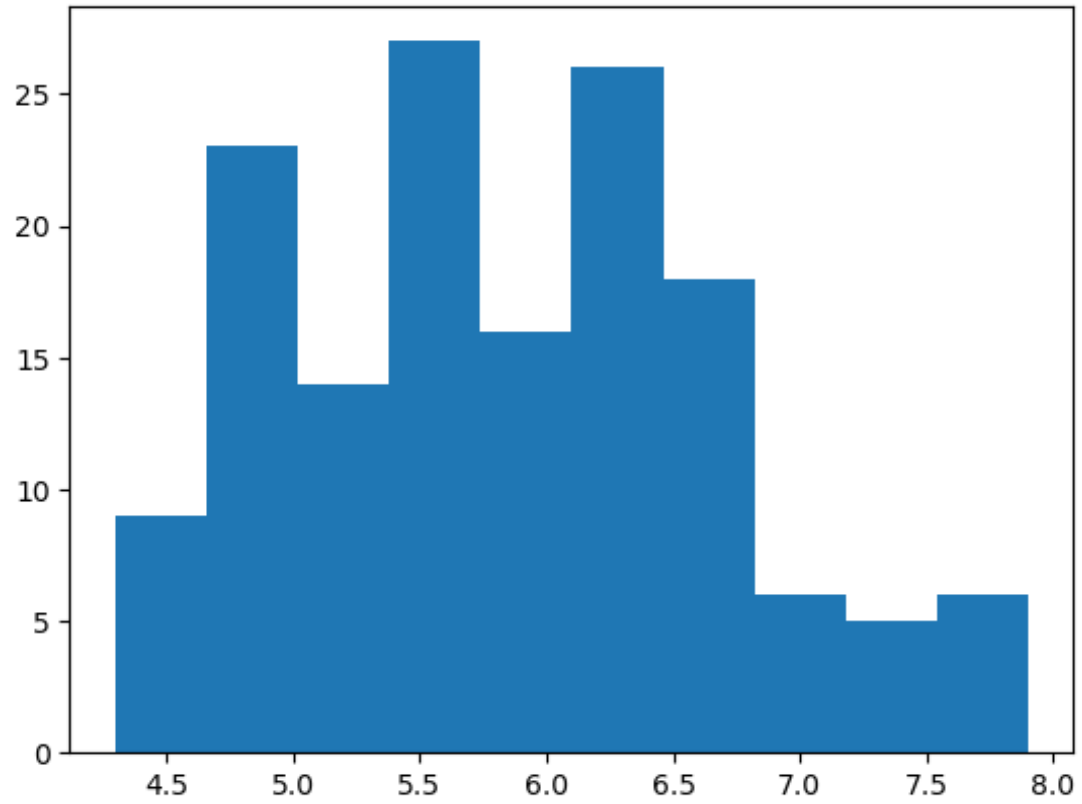
```
count   50.00000      50.000000     50.000000      50.000000     50.00
0000
mean    75.50000       5.936000      2.770000       4.260000      1.32
6000
std     14.57738       0.516171      0.313798       0.469911      0.19
7753
min     51.00000       4.900000      2.000000       3.000000      1.00
0000
25%     63.25000       5.600000      2.525000       4.000000      1.20
0000
50%     75.50000       5.900000      2.800000       4.350000      1.30
0000
75%     87.75000       6.300000      3.000000       4.600000      1.50
0000
max    100.00000       7.000000      3.400000       5.100000      1.80
0000
```

In [7]:
```
irisVir=(df['Species']=="Iris-virginica")
print("Iris-viriginica")
print(df[irisVir].describe())
```

```
Iris-viriginica
              Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWid
thCm
count   50.00000       50.00000     50.000000      50.000000      50.0
0000
mean   125.50000        6.58800      2.974000       5.552000       2.0
2600
std     14.57738        0.63588      0.322497       0.551895       0.2
7465
min    101.00000        4.90000      2.200000       4.500000       1.4
0000
25%    113.25000        6.22500      2.800000       5.100000       1.8
0000
50%    125.50000        6.50000      3.000000       5.550000       2.0
0000
75%    137.75000        6.90000      3.175000       5.875000       2.3
0000
max    150.00000        7.90000      3.800000       6.900000       2.5
0000
```

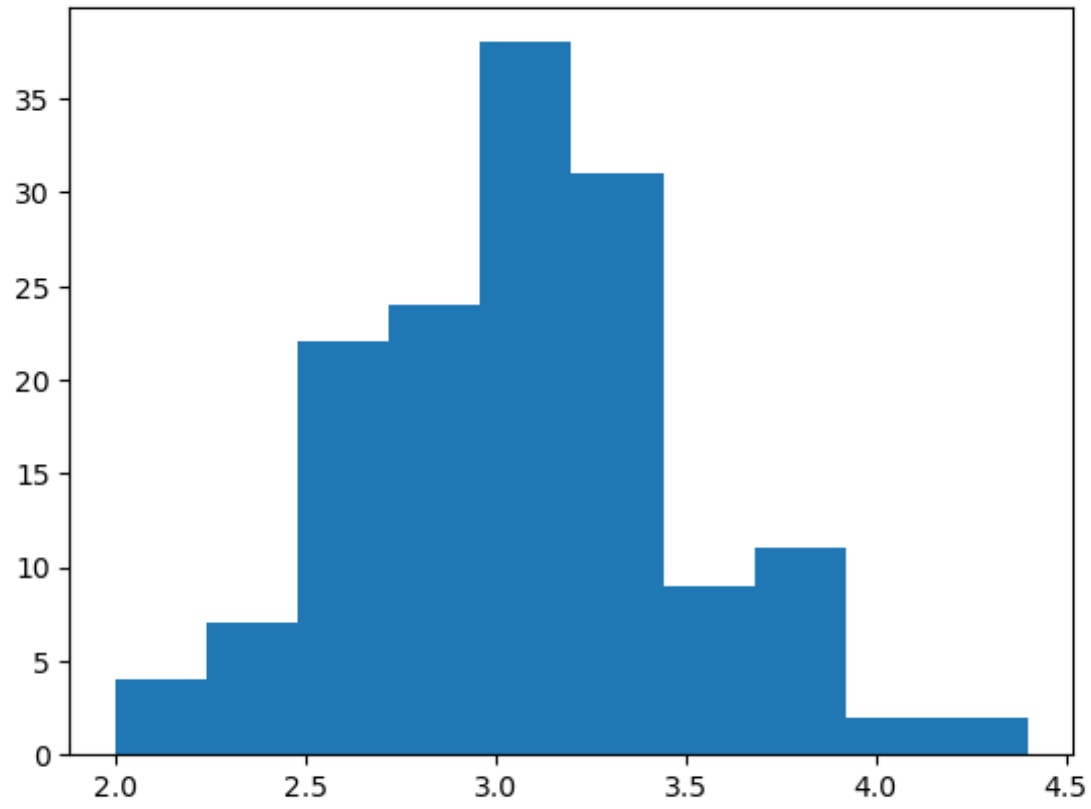
In [8]:
```
plt.hist(df['SepalLengthCm'])
```

Out[8]:
```
(array([ 9., 23., 14., 27., 16., 26., 18.,  6.,  5.,  6.]),
 array([4.3 , 4.66, 5.02, 5.38, 5.74, 6.1 , 6.46, 6.82, 7.18, 7.54, 7.
9 ]),
 <BarContainer object of 10 artists>)
```



In [9]:
```
plt.hist(df['SepalWidthCm'])
```

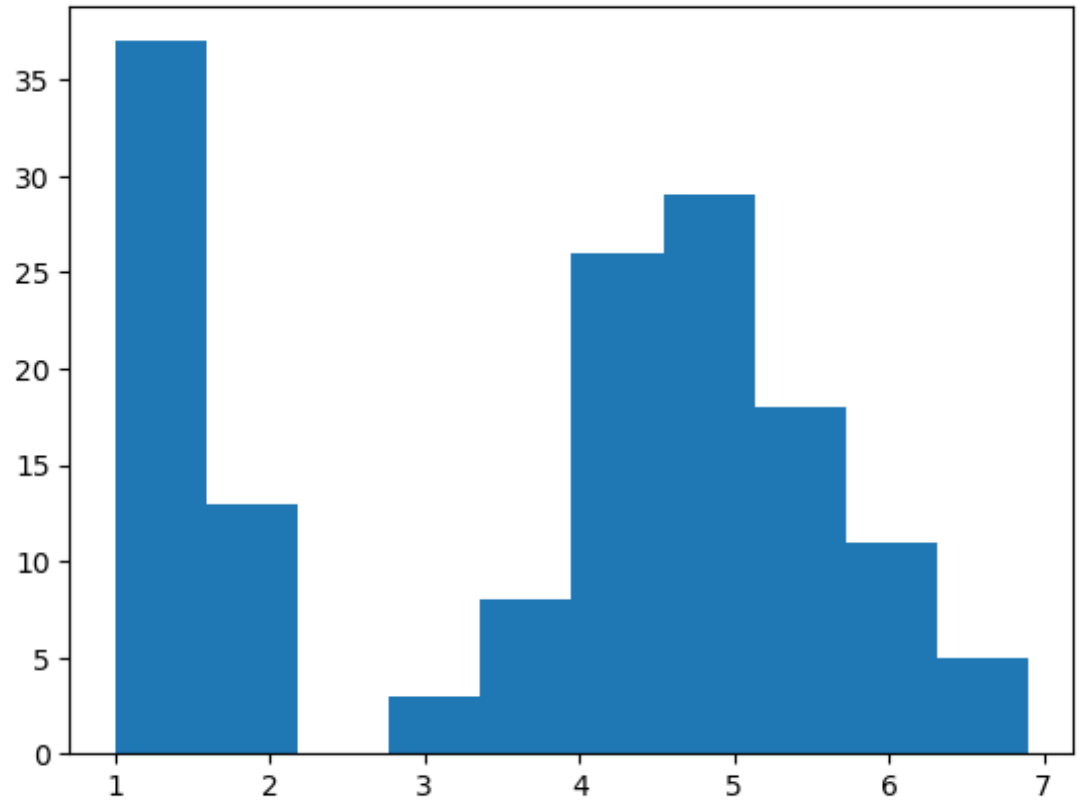
Out[9]:
```
(array([ 4.,  7., 22., 24., 38., 31.,  9., 11.,  2.,  2.]),
 array([2.  , 2.24, 2.48, 2.72, 2.96, 3.2 , 3.44, 3.68, 3.92, 4.16, 4.
4 ]),
 <BarContainer object of 10 artists>)
```



In [10…
```
plt.hist(df['PetalLengthCm'])
```

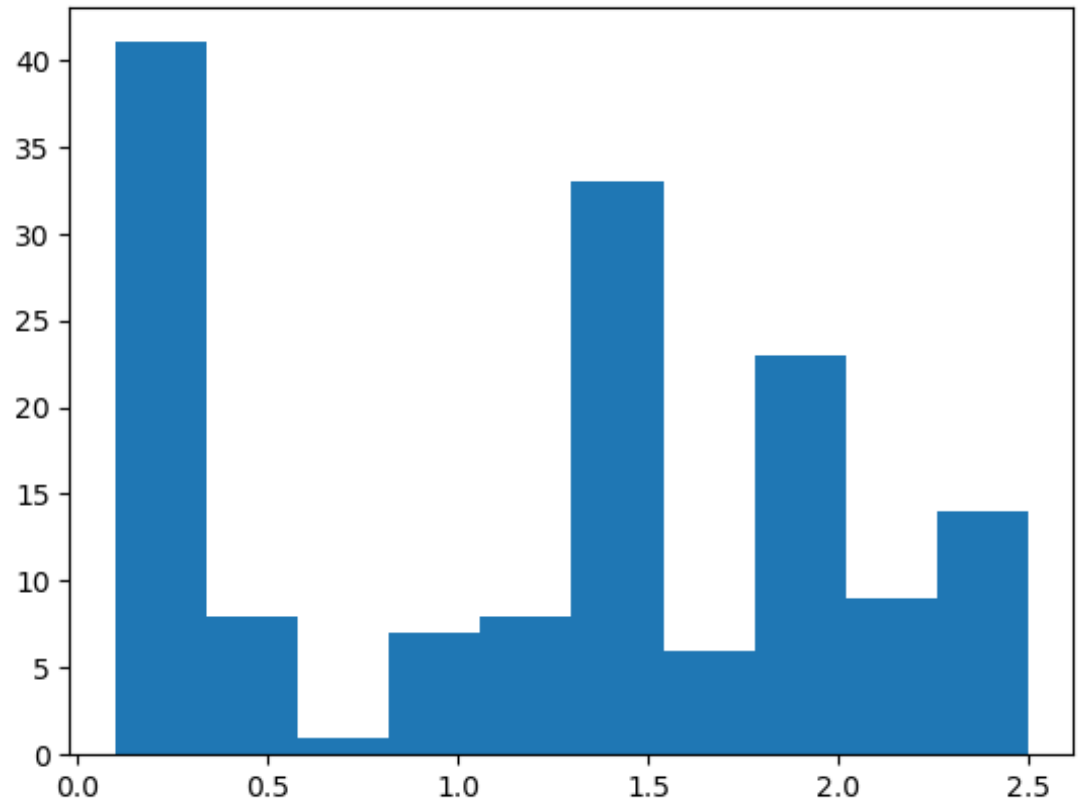
Out[10]:
```
(array([37., 13.,  0.,  3.,  8., 26., 29., 18., 11.,  5.]),
```

```
 array([1.  , 1.59, 2.18, 2.77, 3.36, 3.95, 4.54, 5.13, 5.72, 6.31, 6.
9 ]),
 <BarContainer object of 10 artists>)
```



In [11…
```
plt.hist(df['PetalWidthCm'])
```

Out[11]:
```
(array([41.,  8.,  1.,  7.,  8., 33.,  6., 23.,  9., 14.]),
 array([0.1 , 0.34, 0.58, 0.82, 1.06, 1.3 , 1.54, 1.78, 2.02, 2.26, 2.
5 ]),
 <BarContainer object of 10 artists>)
```

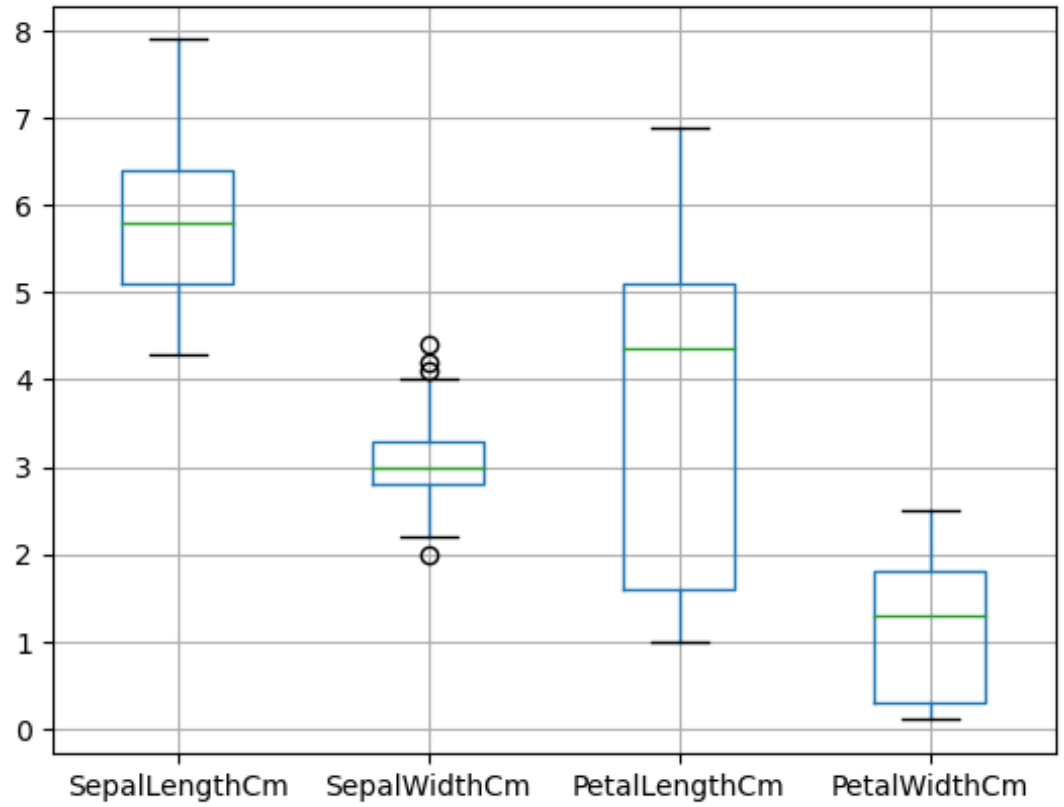


In [16…

```
col=["SepalLengthCm","SepalWidthCm","PetalLengthCm","PetalWidthCm"]
df.boxplot(col)
```

Out[16]:

```
<Axes: >
```



In [ ]: