In [51]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

In [52]:
```
df = pd.read_csv(r"C:\Users\yasha\Desktop\Ashish\sem 6\DSBDA\DSBDA Lab Datase
df
```

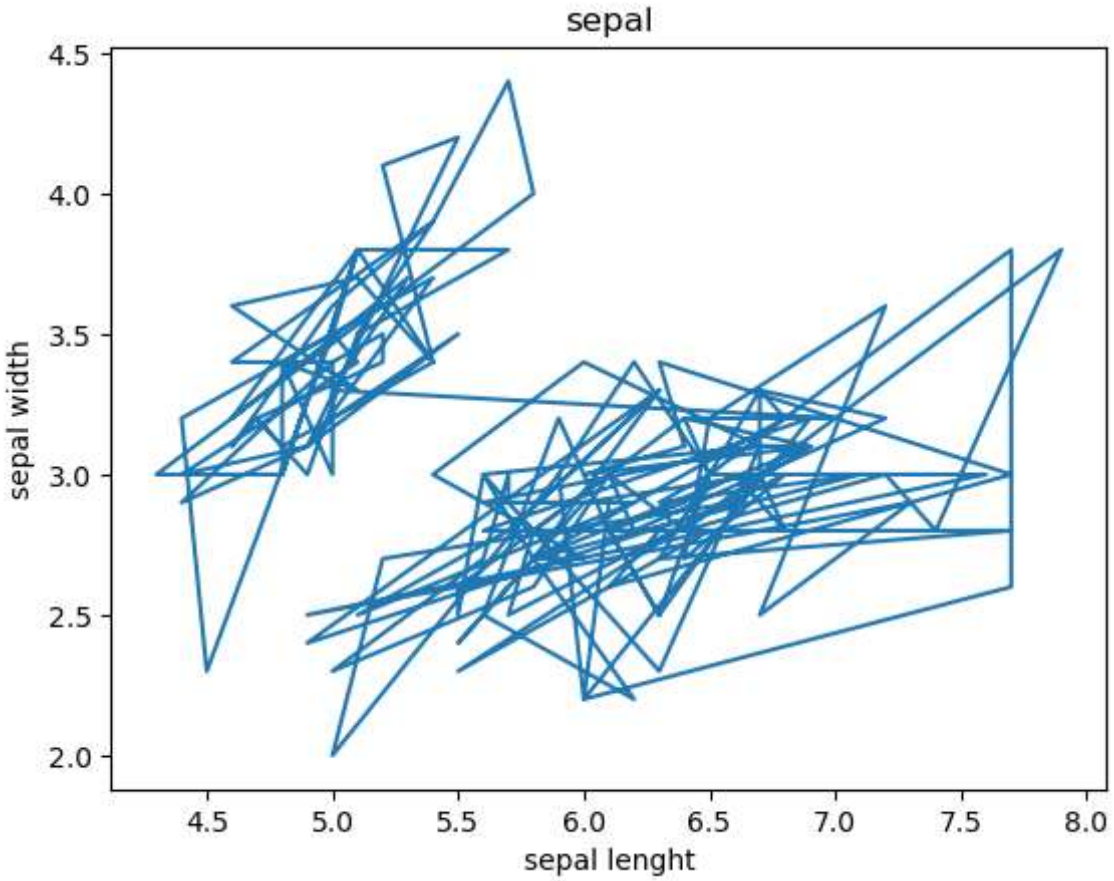
Out[52]:

	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

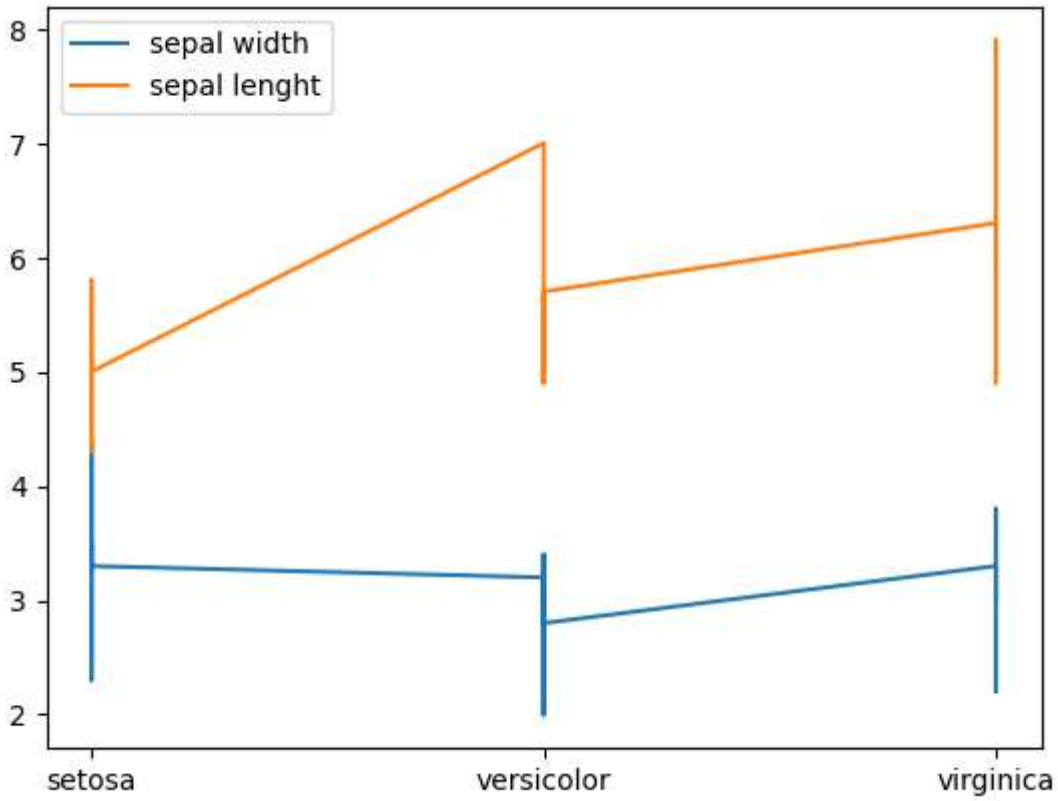
150 rows × 5 columns

In [53]:
```
# Line graph
x=df['sepal_length']
y=df['sepal_width']
plt.xlabel("sepal lenght")
plt.ylabel("sepal width")
plt.title("sepal")
plt.plot(x,y)
```

Out[53]: [<matplotlib.lines.Line2D at 0x29bff740790>]

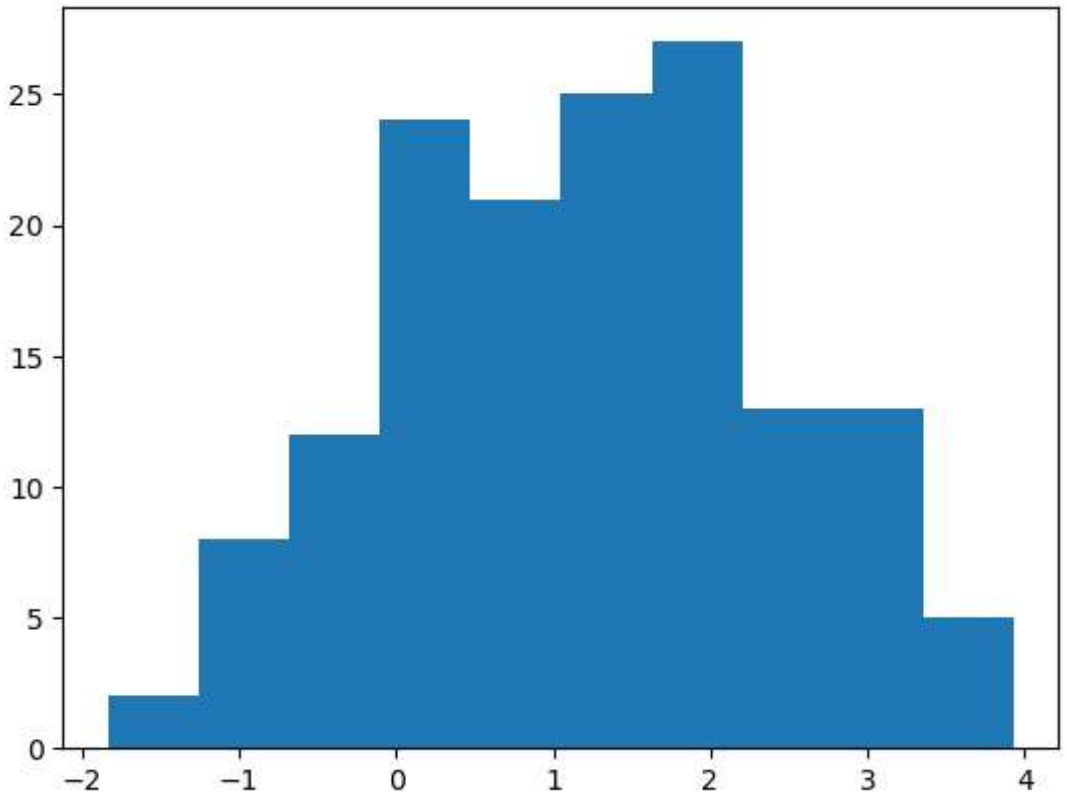


In [54]:
```
#multi line grapgh
x=df['species']
y=df['sepal_width']
z=df['sepal_length']
plt.plot(x,y,label="sepal width")
plt.plot(x,z,label="sepal lenght")
plt.legend()
plt.show()
```



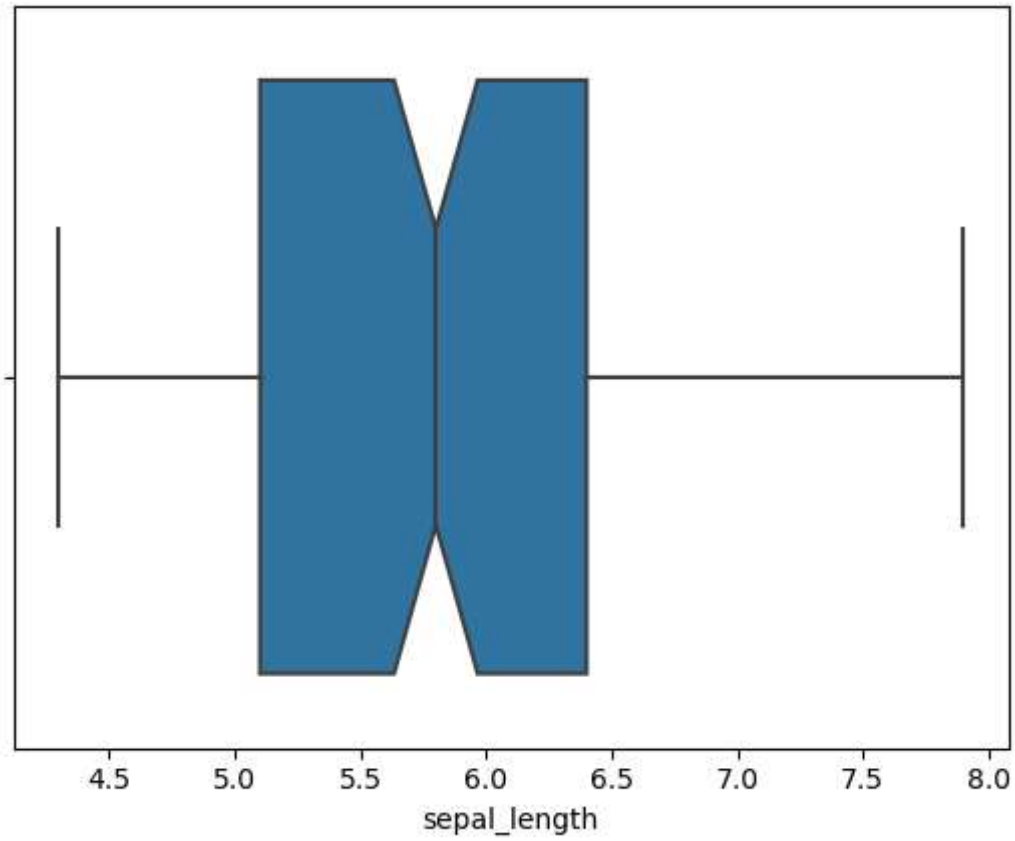
In [55]:
```
#histogram
x=np.random.normal(df['petal_width'])
plt.hist(x)
```

Out[55]:
```
(array([ 2.,  8., 12., 24., 21., 25., 27., 13., 13.,  5.]),
 array([-1.83335981, -1.25700116, -0.6806425 , -0.10428385,  0.47207481,
         1.04843346,  1.62479211,  2.20115077,  2.77750942,  3.35386808,
         3.93022673]),
 <BarContainer object of 10 artists>)
```



In [56]:
```
#box plot
sns.boxplot(x=df['sepal_length'],notch=True)
```

Out[56]: <Axes: xlabel='sepal_length'>



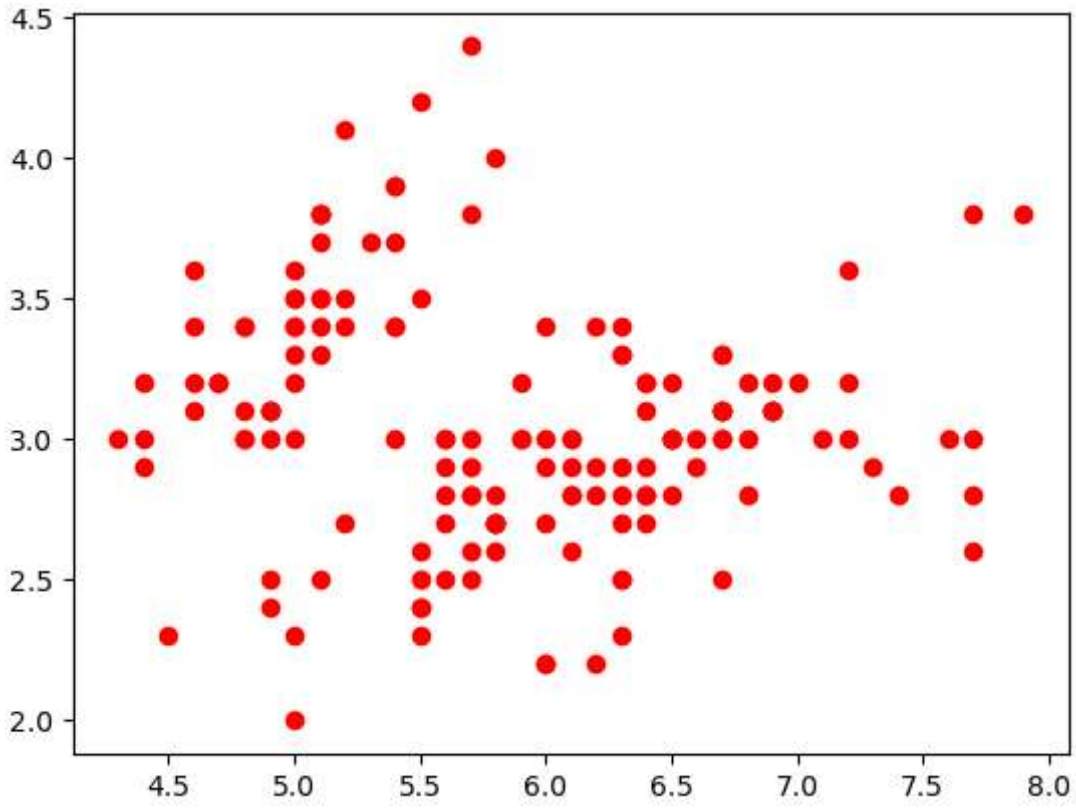
In [57]:
```
#heat map
sns.heatmap(df.corr())
```

```
C:\Users\yasha\AppData\Local\Temp\ipykernel_22400\2817045053.py:2: FutureWar
ning: The default value of numeric_only in DataFrame.corr is deprecated. In
a future version, it will default to False. Select only valid columns or spe
cify the value of numeric_only to silence this warning.
  sns.heatmap(df.corr())
```

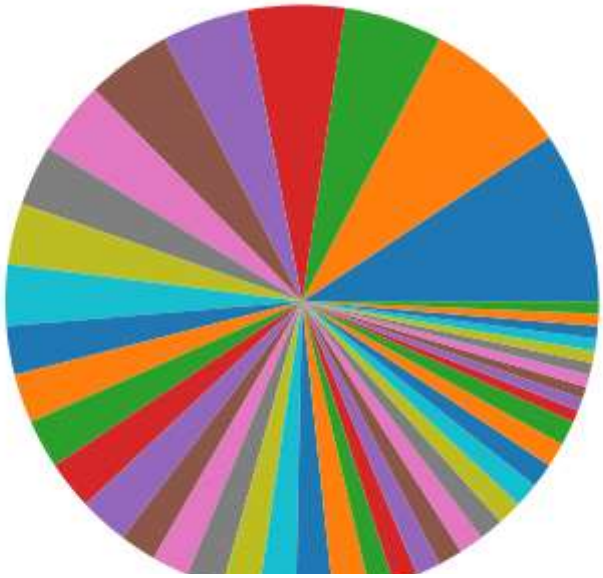
Out[57]: <Axes: >

In [58]:
```
#scatter plot
x=(df['sepal_length'])
y=(df['sepal_width'])
plt.scatter(x,y,color='red')
```

Out[58]: <matplotlib.collections.PathCollection at 0x29bfbd4edd0>



In [59]:
```
#pie chart
plt.pie(x=df['petal_length'].value_counts())
plt.show()
```



In [61]:
```
#bar plot
sns.barplot(x='petal_length', y='petal_width',data=df)
```

Out[61]:
```
<Axes: xlabel='petal_length', ylabel='petal_width'>
```