

In [1]:

```
#Assignment 4 (Group b)
#Name:Samiksha Bandgar
#Roll no:3307
#Subject:DSBDAL
#Batch:A

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

In [6]:

```
data=pd.read_csv(r"C:\Users\Samiksha Bandgar\OneDrive\Desktop\heart.csv")
```

In [7]:

```
data.head()
```

Out[7]:

	age	sex	cp	trestbps	chol	fb	restecg	thalach	exang	oldpeak	slope	ca	thal	target
0	52	1	0	125	212	0	1	168	0	1.0	2	2	3	
1	53	1	0	140	203	1	0	155	1	3.1	0	0	3	
2	70	1	0	145	174	0	1	125	1	2.6	0	0	3	
3	61	1	0	148	203	0	1	161	0	0.0	2	1	3	
4	62	0	0	138	294	1	1	106	0	1.9	1	3	2	

In [10]:

```
x=data.age
```

In [11]:

```
x
```

Out[11]:

```
0      52
1      53
2      70
3      61
4      62
       ..
1020    59
1021    60
1022    47
1023    50
1024    54
Name: age, Length: 1025, dtype: int64
```

In [12]:

```
y=data.chol
```

In [13]:

```
y
```

Out[13]:

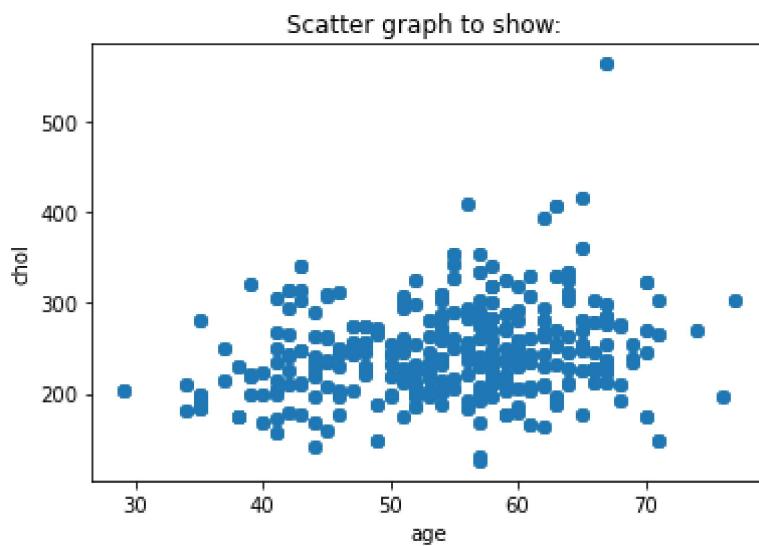
```
0      212
1      203
2      174
3      203
4      294
...
1020    221
1021    258
1022    275
1023    254
1024    188
Name: chol, Length: 1025, dtype: int64
```

In [15]:

```
plt.title("Scatter graph to show: ")
plt.xlabel("age")
plt.ylabel("chol")
plt.scatter(x,y)
```

Out[15]:

```
<matplotlib.collections.PathCollection at 0x214107e6430>
```



In [16]:

```
plt.show()
```

In [17]:

```
x=data.sex
```

In [18]:

```
x
```

Out[18]:

```
0      1
1      1
2      1
3      1
4      0
..
1020    1
1021    1
1022    1
1023    0
1024    1
Name: sex, Length: 1025, dtype: int64
```

In [19]:

```
y=data.ca
y
```

Out[19]:

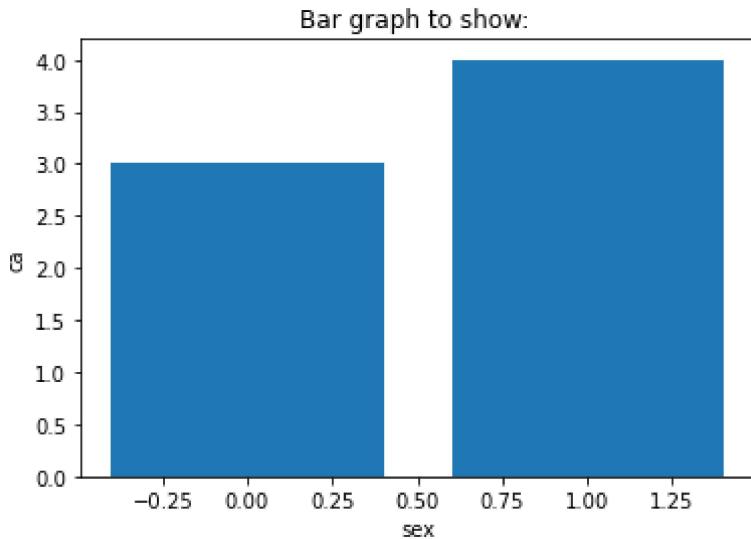
```
0      2
1      0
2      0
3      1
4      3
..
1020    0
1021    1
1022    1
1023    0
1024    1
Name: ca, Length: 1025, dtype: int64
```

In [20]:

```
plt.title("Bar graph to show: ")  
plt.xlabel("sex")  
plt.ylabel("ca")  
plt.bar(x,y)
```

Out[20]:

```
<BarContainer object of 1025 artists>
```



In [21]:

```
x=data.sex  
x
```

Out[21]:

```
0      1  
1      1  
2      1  
3      1  
4      0  
..  
1020    1  
1021    1  
1022    1  
1023    0  
1024    1  
Name: sex, Length: 1025, dtype: int64
```

In [22]:

```
y=data.slope  
y
```

Out[22]:

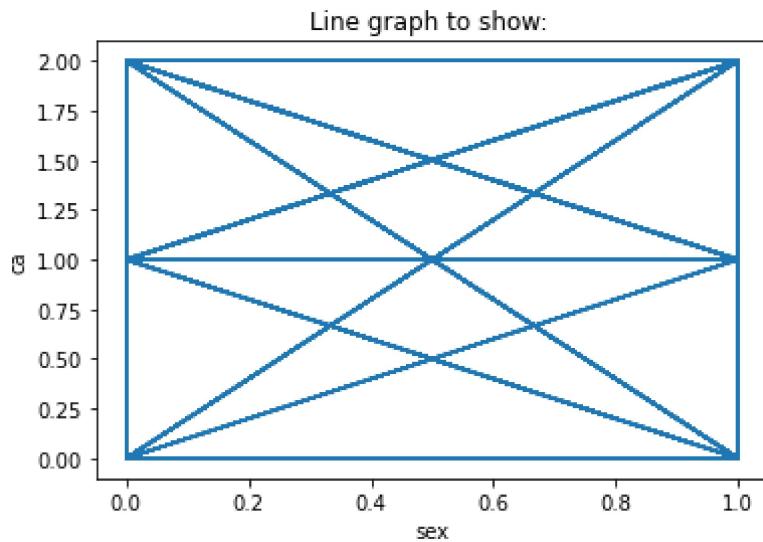
```
0      2  
1      0  
2      0  
3      2  
4      1  
..  
1020    2  
1021    1  
1022    1  
1023    2  
1024    1  
Name: slope, Length: 1025, dtype: int64
```

In [23]:

```
plt.title("Line graph to show: ")  
plt.xlabel("sex")  
plt.ylabel("ca")  
plt.plot(x,y)
```

Out[23]:

```
[<matplotlib.lines.Line2D at 0x214112991c0>]
```



In [24]:

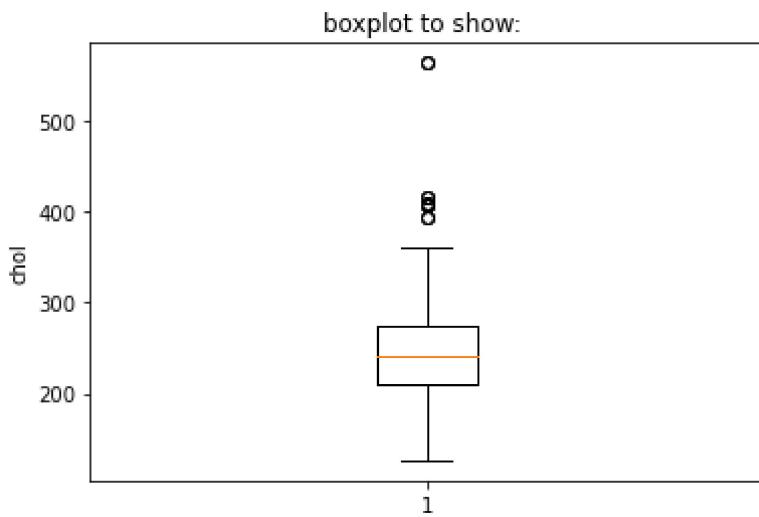
```
x=data.chol
```

In [25]:

```
plt.title("boxplot to show: ")
plt.ylabel("chol")
plt.boxplot(x)
```

Out[25]:

```
{'whiskers': [
```



In [26]:

```
x=data.ca
x
```

Out[26]:

```
0      2
1      0
2      0
3      1
4      3
..
1020    0
1021    1
1022    1
1023    0
1024    1
Name: ca, Length: 1025, dtype: int64
```

In [27]:

```
y=data.slope  
y
```

Out[27]:

```
0      2  
1      0  
2      0  
3      2  
4      1  
..  
1020    2  
1021    1  
1022    1  
1023    2  
1024    1  
Name: slope, Length: 1025, dtype: int64
```

In [28]:

```
y=data.slope
```

In [29]:

```
plt.title("piechart to show: ")  
plt.pie(x,y)
```

Out[29]:

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...])



piechart to show:

In [30]:

```
plt.title("piechart to show: ")  
plt.pie(y)
```

Out[30]:

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Text(1.0782661655170884, -0.21758234372548504, ''),
Text(1.0796865355426788, -0.21042097083667294, ''),
Text(1.0806070292435215, -0.20564155307109383, ''),
Text(1.0819480952655214, -0.1984649065989004, ''),
Text(1.0832414994954245, -0.19127951738465016, ''),
Text(1.084077261985458, -0.1864845571250144, ''),
Text(1.084891799727412, -0.18168594575315214, ''),
Text(1.0856850967737526, -0.17688377721930199, ''),
...])

piechart to show:



In []: