

```
In [52]: auto.drop('car name',axis=1)
```

Out[52]:

	mpg	cylinders	displacement	horsepower	weight	acceleration	model year	origin
0	18.0	8	307.0	130.0	3504.0	12.0	70	1
1	15.0	8	350.0	165.0	3693.0	11.5	70	1
2	18.0	8	318.0	150.0	3436.0	11.0	70	1
3	16.0	8	304.0	150.0	3433.0	12.0	70	1
4	17.0	8	302.0	140.0	3449.0	10.5	70	1
...
393	27.0	4	140.0	86.00	2790.0	15.6	82	1
394	44.0	4	97.0	52.00	2130.0	24.6	82	2
395	32.0	4	135.0	84.00	2295.0	11.6	82	1
396	28.0	4	120.0	79.00	2625.0	18.6	82	1
397	31.0	4	119.0	82.00	2720.0	19.4	82	1

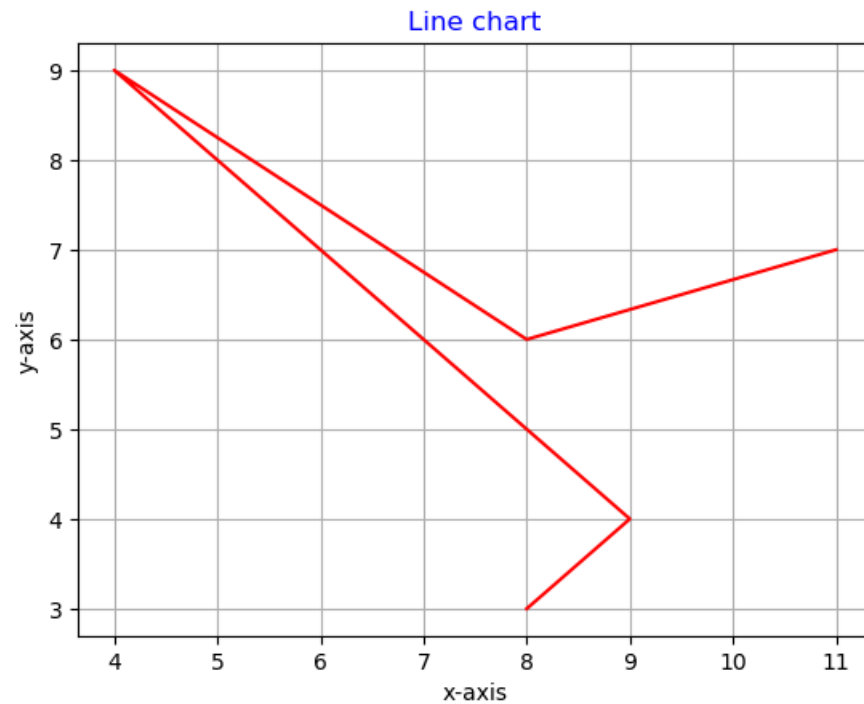
398 rows × 8 columns

```
In [ ]:
```

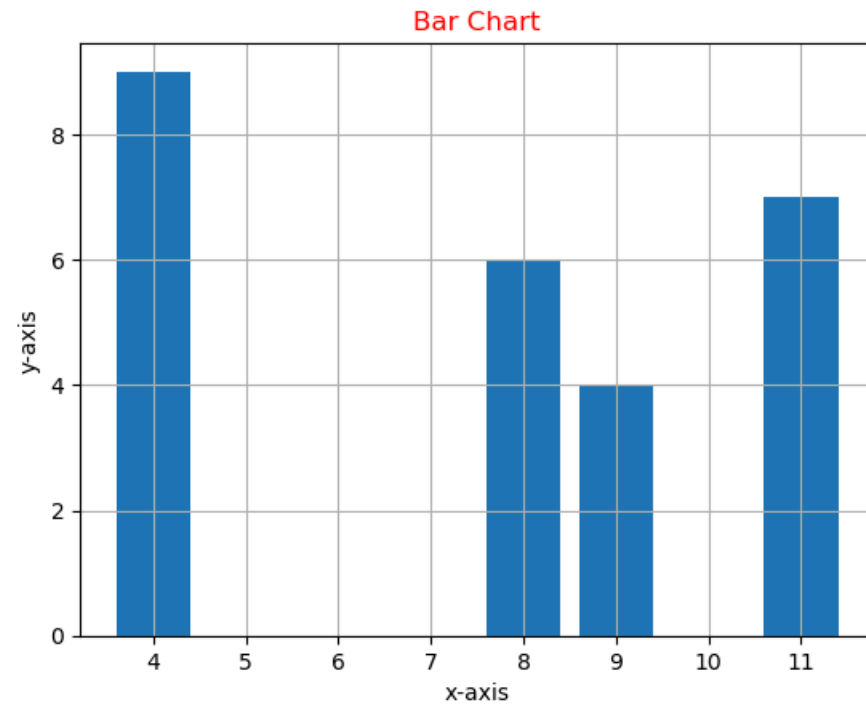
Matplotlib

Data visualization technique

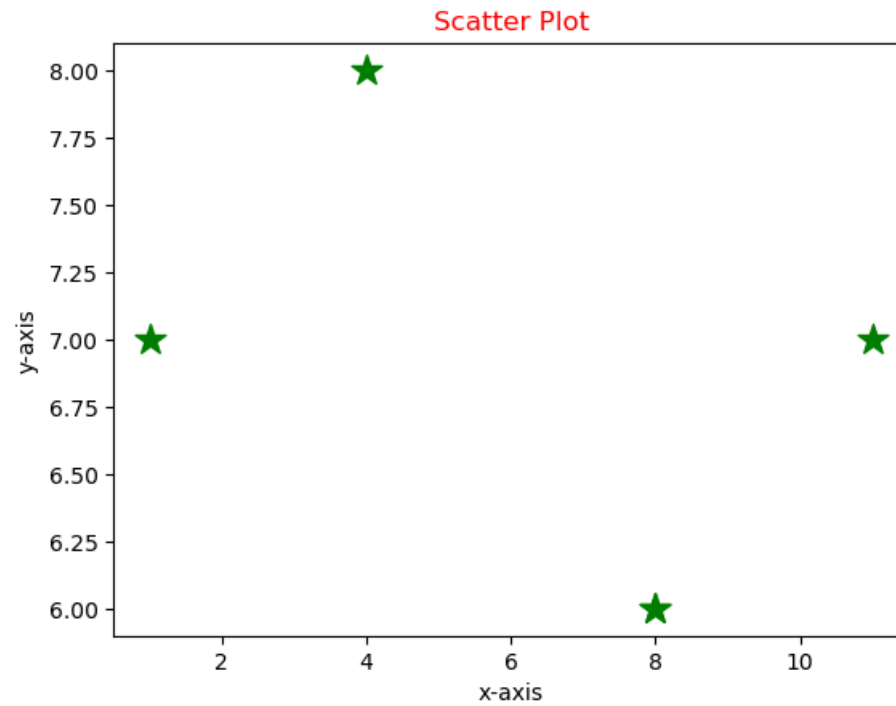
```
In [18]: import matplotlib.pyplot as plt
from matplotlib import pyplot as plt
#line plot
x = [8,9,4,8,11]
y = [3,4,9,6,7]
plt.plot(x,y,c='r')
plt.title('Line chart',c='b')
plt.xlabel('x-axis')
plt.ylabel('y-axis')
plt.grid()
plt.show()
```



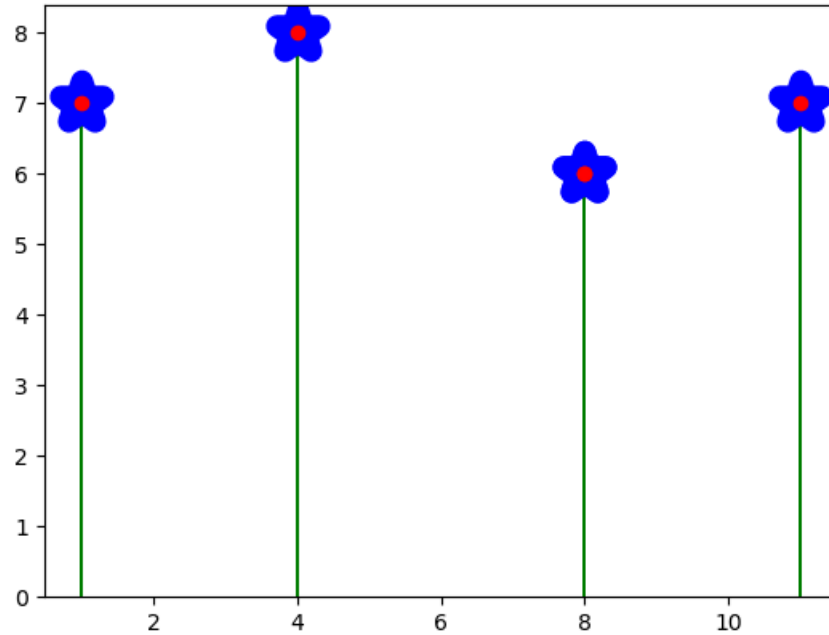
```
In [54]: #bar Chart  
#line plot  
x = [8,9,4,8,11]  
y = [3,4,9,6,7]  
plt.bar(x,y)  
plt.title('Bar Chart',c='r')  
plt.xlabel('x-axis')  
plt.ylabel('y-axis')  
plt.grid()  
plt.show()
```



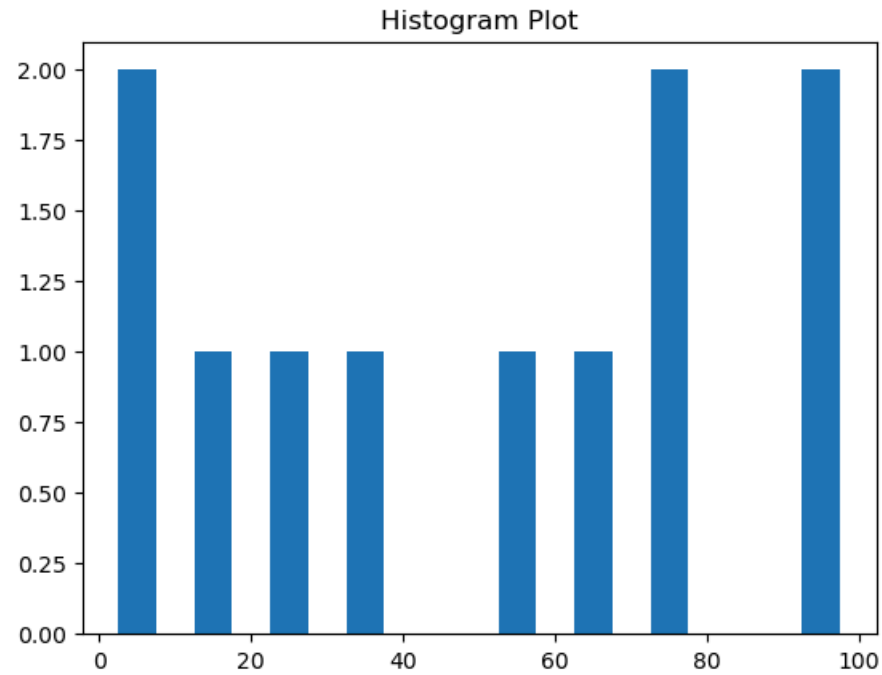
```
In [55]: #Scatter Plot  
x = [8,1,4,8,11]  
y = [6,7,8,6,7]  
plt.scatter(x,y,s=200,marker='*',c='g')  
plt.title('Scatter Plot',c='r')  
plt.xlabel('x-axis')  
plt.ylabel('y-axis')  
plt.show()
```



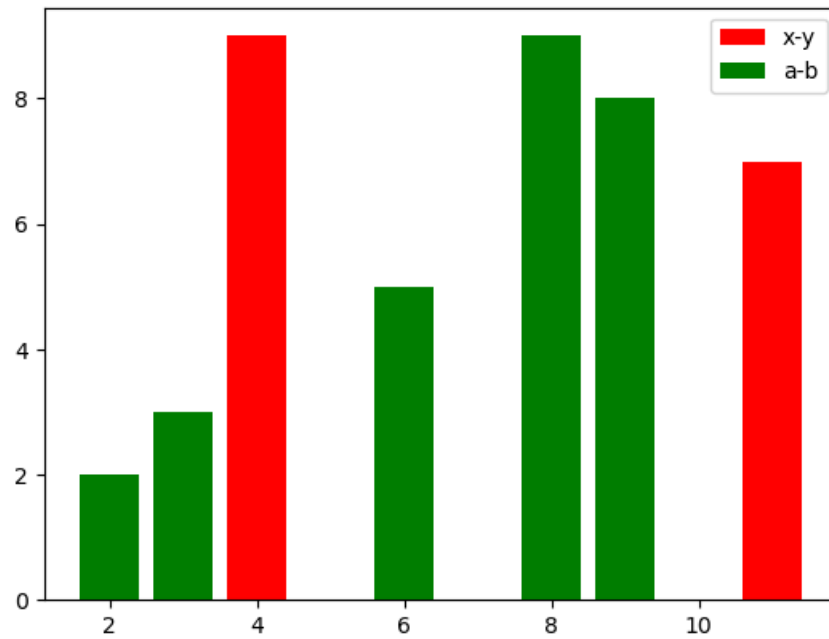
```
In [56]: x = [8,1,4,8,11]
y = [6,7,8,6,7]
plt.bar(x,y,color='g',width=0.05)
plt.scatter(x,y,s=400,c='blue',marker='*',linewidths=10)
plt.scatter(x,y,c='red')
plt.show()
```



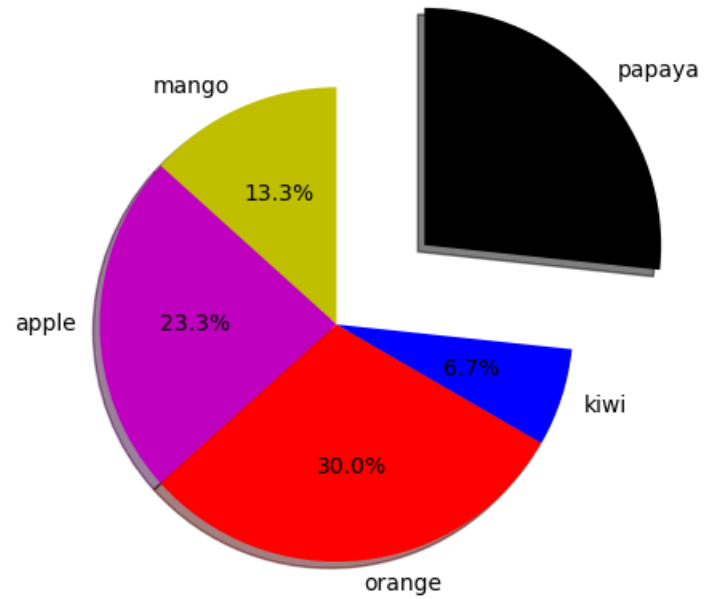
```
In [25]: #Histogram
age = [12,34,56,78,90,94,8,5,78,63,28]
bins = [0,10,20,30,40,50,60,70,80,90,100]
plt.hist(age,bins=bins,rwidth=0.5)
plt.title('Histogram Plot')
plt.show()
```



```
In [45]: #bar chart
x = [8,9,4,8,11]
y = [3,4,9,6,7]
plt.bar(x,y,label='x-y',color = 'red')
a = [6,8,9,3,2]
b = [5,9,8,3,2]
plt.bar(a,b,label='a-b',color = 'green')
plt.legend()
plt.show()
```



```
In [51]: #pie chart
s = [4,7,9,2,8]
v = ['mango', 'apple', 'orange', 'kiwi', 'papaya']
c = ['y', 'm', 'r', 'b', 'k']
plt.pie(s, labels=v, colors=c, startangle=90, autopct='%2.1f%%', shadow=True,
        explode=[0,0,0,0,0.5])
plt.show()
```



In []: