

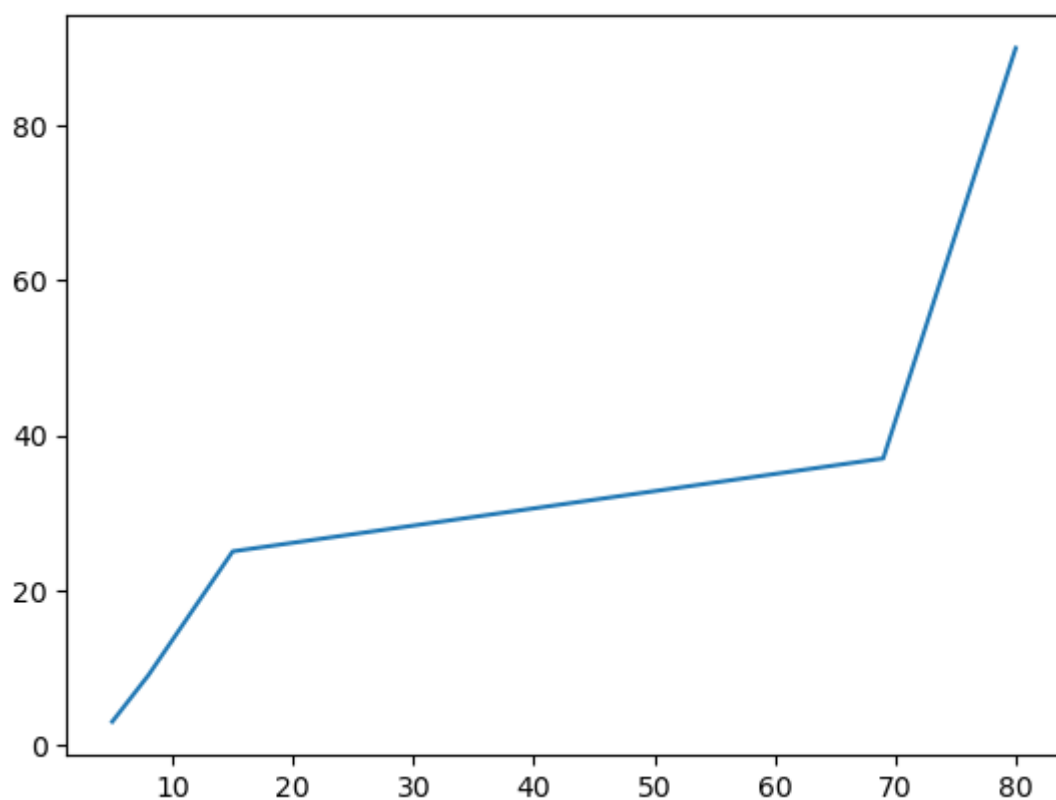
```
In [1]: import pandas as pd
import numpy as np
#the import file of matplotlib
import matplotlib.pyplot as plt
```

```
In [5]: x=np.array([5,8,15,69,80])
y=np.array([3,9,25,37,90])
#plot the graph with single coordinate

x1=np.array([4,5,88,73])
y1=np.array([9,12,44,56])

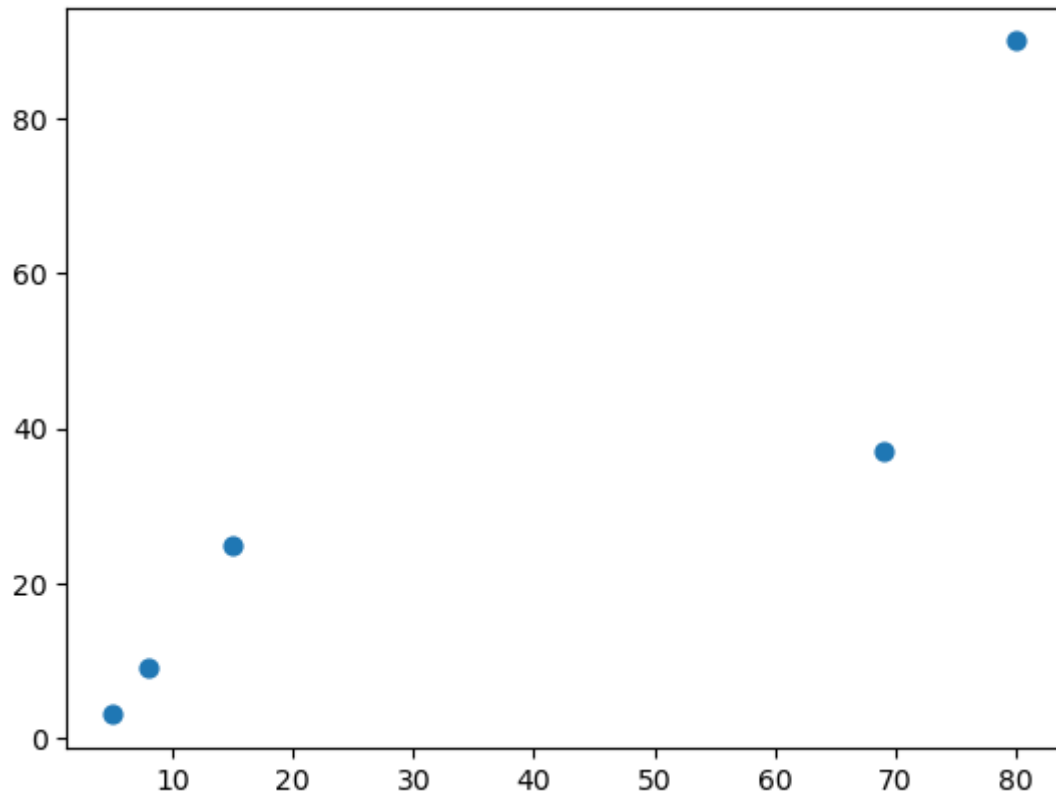
plt.plot(x,y)
```

Out[5]: [<matplotlib.lines.Line2D at 0x23daf071290>]

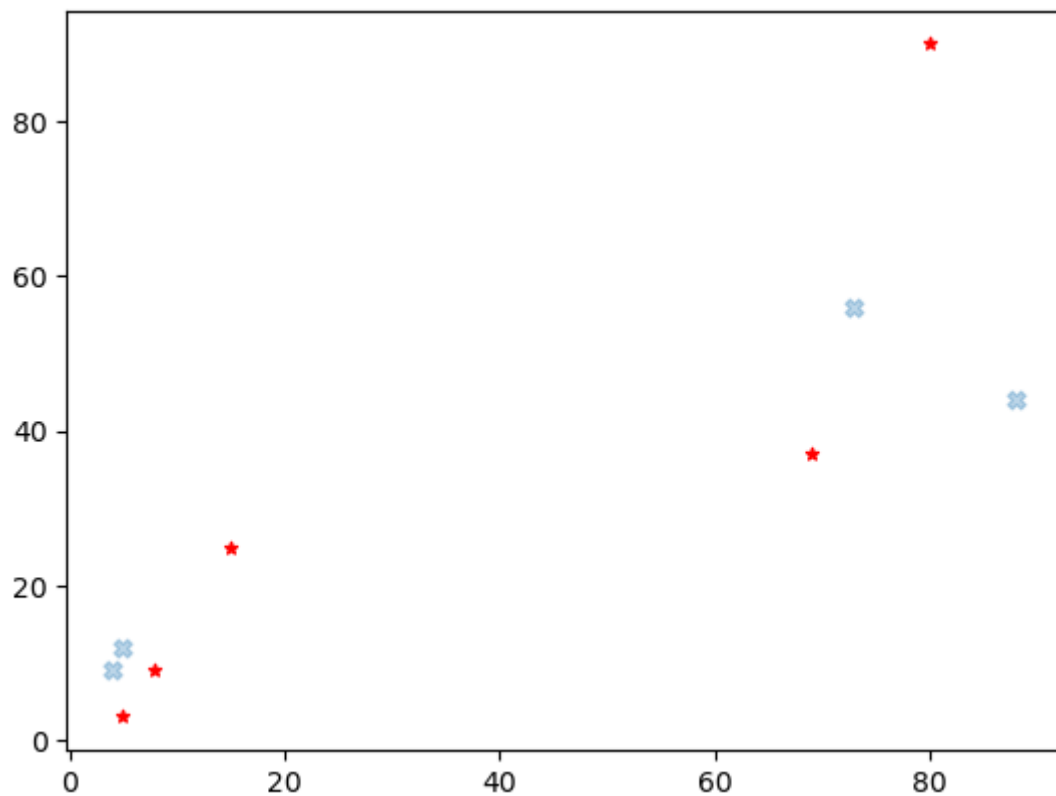


```
In [4]: #plotting the scatter graph using the matplotlib
plt.scatter(x,y,s=40)
plt.show
```

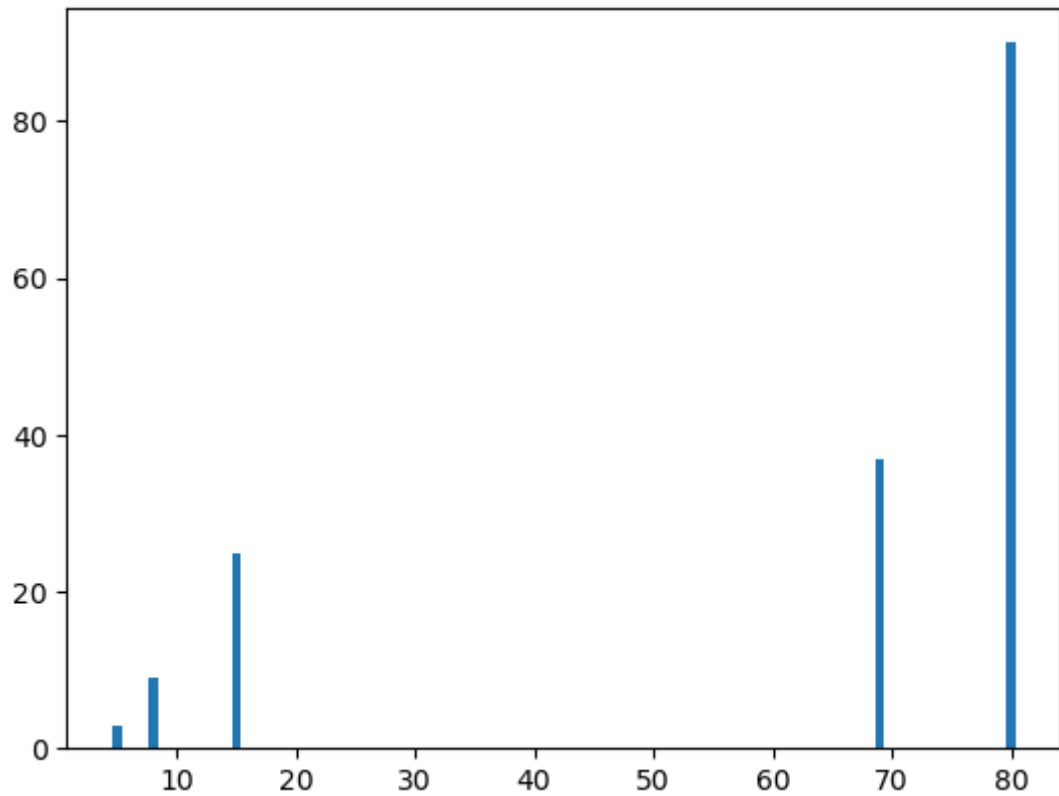
```
Out[4]: <function matplotlib.pyplot.show(close=None, block=None)>
```



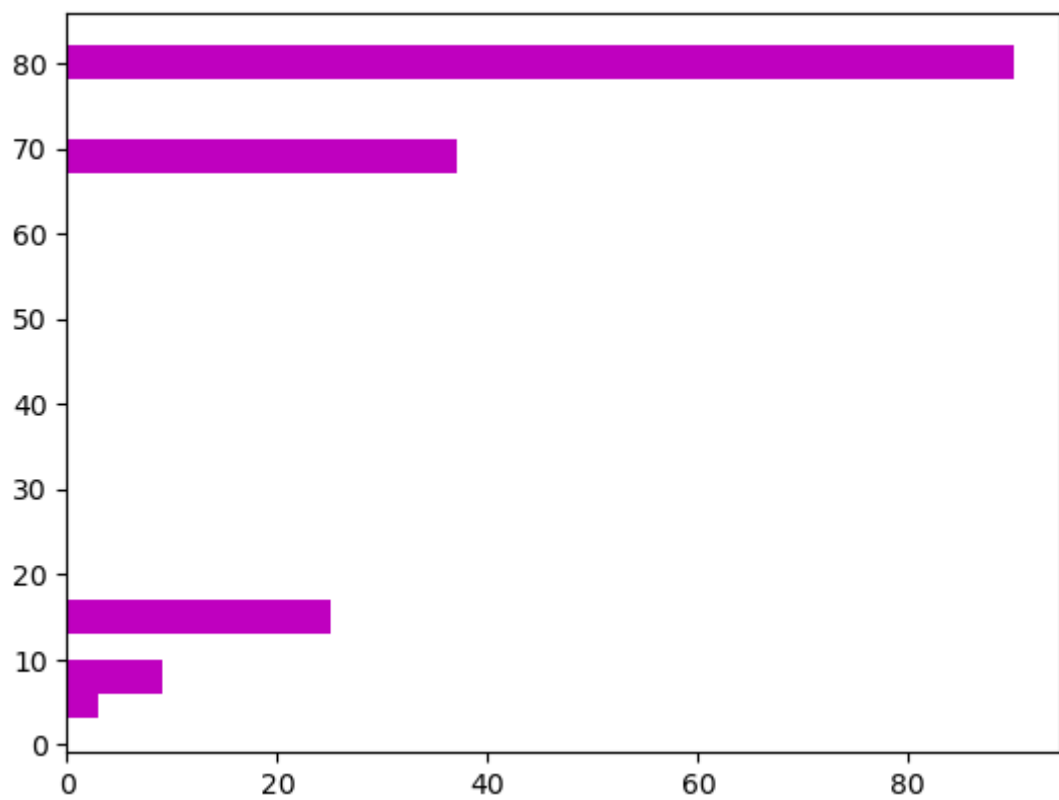
```
In [13]: plt.scatter(x,y,color='r',s=20,marker="*")#s=size,use marker for ather shap
plt.scatter(x1,y1,s=40,alpha=0.3,marker="x") #alpha use for the opacity for
plt.show()
```



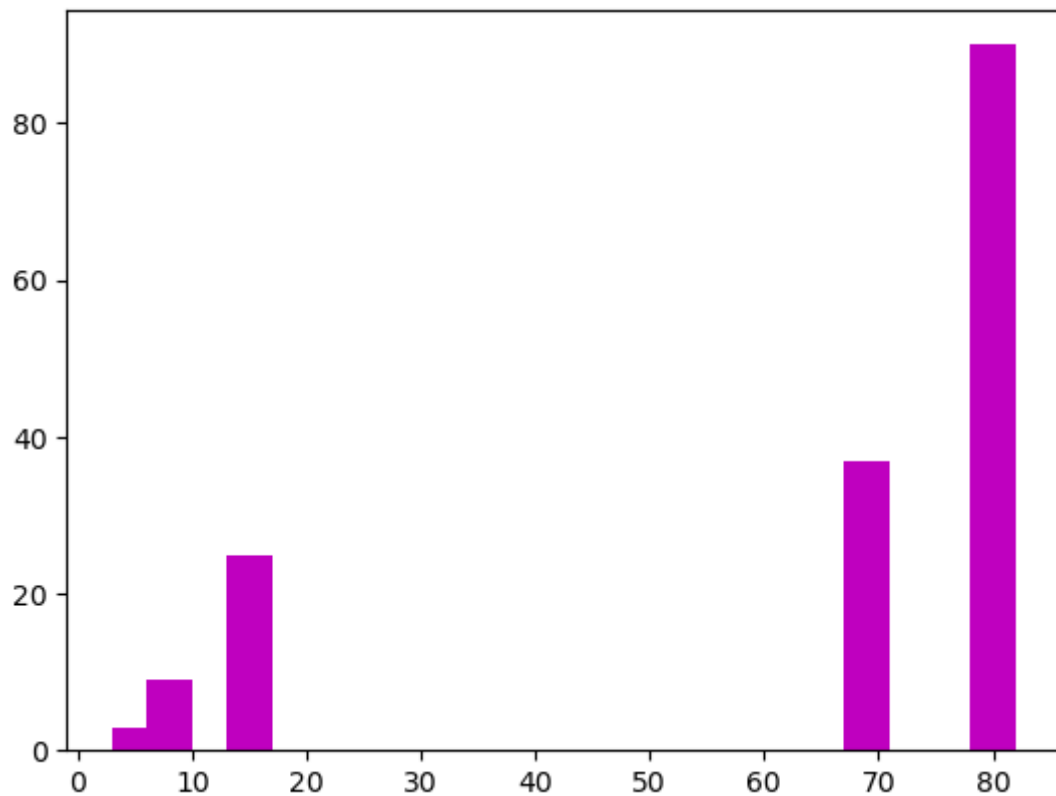
```
In [15]: plt.bar(x,y)
plt.show()#for vertical
```



```
In [25]: plt.barh(x,y,color='m',height=4)
plt.show()#for horizontal
```

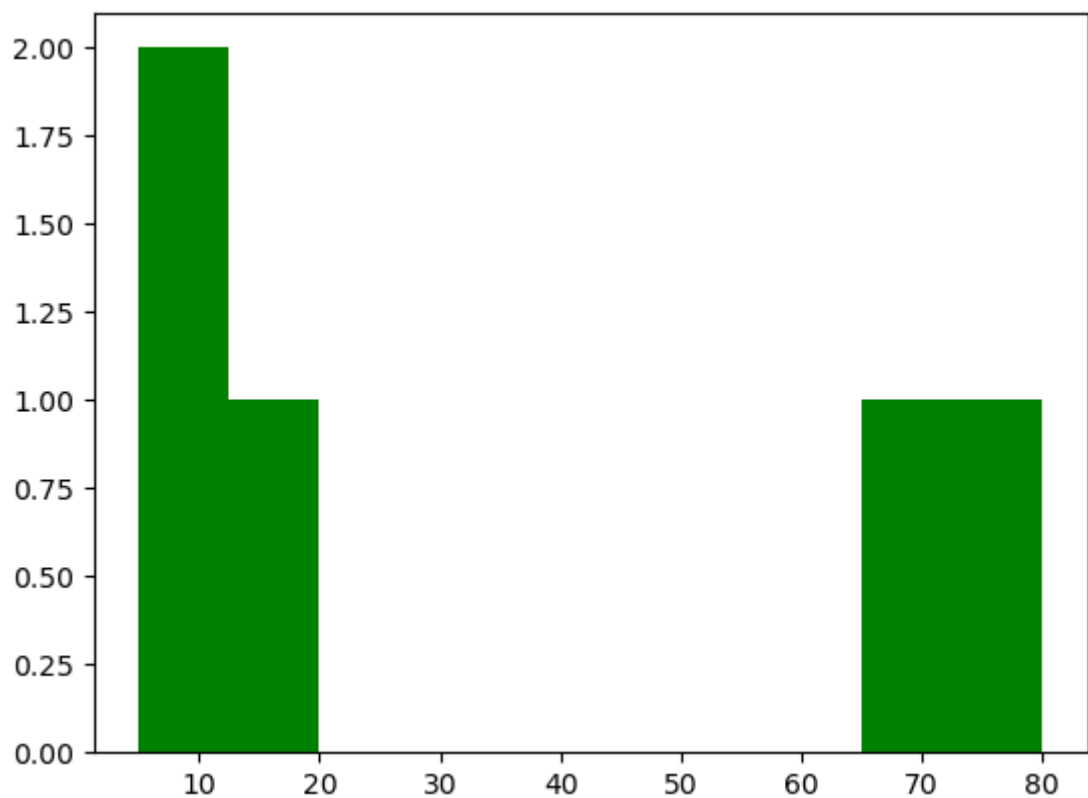


```
In [21]: plt.bar(x,y,color='m',width=4)
plt.show()
```

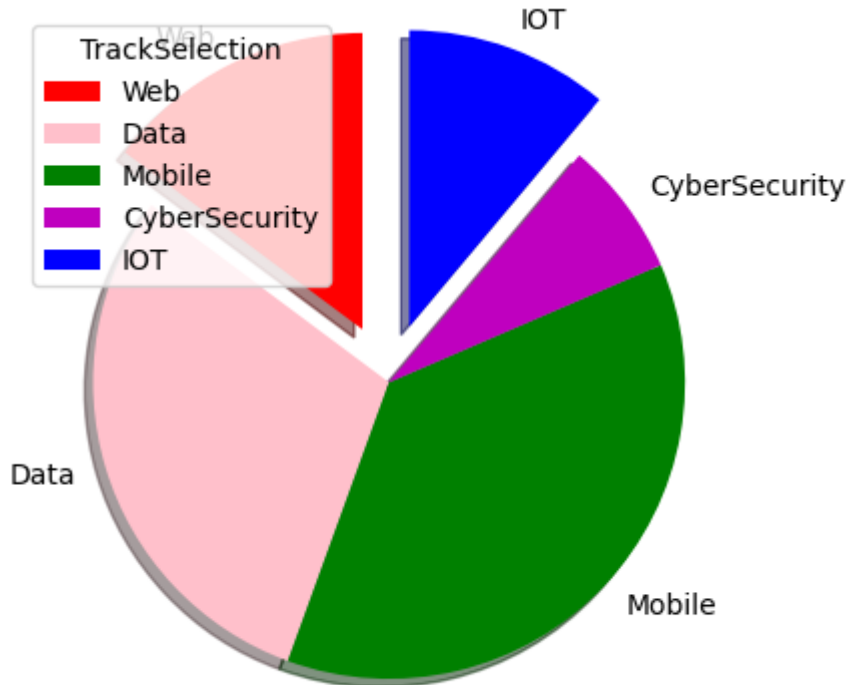


```
In [27]: plt.hist(x,color='g') #is the specific column
```

```
Out[27]: (array([2., 1., 0., 0., 0., 0., 0., 0., 1., 1.]),
array([ 5. , 12.5, 20. , 27.5, 35. , 42.5, 50. , 57.5, 65. , 72.5, 80.
])),
<BarContainer object of 10 artists>)
```



```
In [53]: #pie chart ....
track_stud=np.array([20,40,50,10,15])
track_name=np.array(["Web","Data","Mobile","CyberSecurity","IOT"])
ex=[0.2,0,0,0,0.2]
c=['r','Pink','g','m','b']
plt.pie(track_stud,labels=track_name,startangle=90,explode=ex,shadow=True,color=c)
plt.legend(title="TrackSelection",loc='upper left')
plt.show()
```



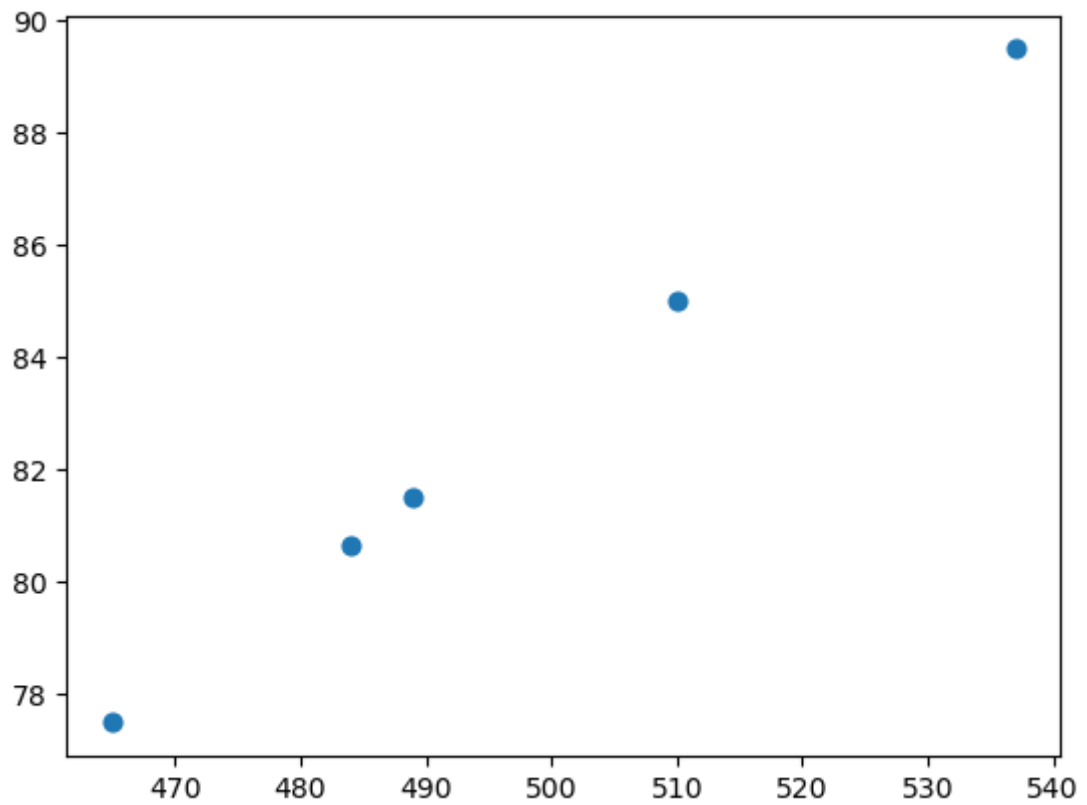
```
In [54]: studentdata=pd.read_csv('studentdatabasem.csv')
studentdata
```

Out[54]:

| | Unnamed: 0 | Sr.No | StudentName | CCN | WS | CS | MLP | FLUTTER | LARAVEL | Total | A |
|---|------------|-------|-------------|-----|----|----|-----|---------|---------|-------|---------|
| 0 | 0 | 1 | Bhavdip | 95 | 94 | 85 | 74 | 52 | 65 | 465 | 77.5000 |
| 1 | 1 | 2 | Digvijay | 96 | 85 | 87 | 75 | 96 | 45 | 484 | 80.6666 |
| 2 | 2 | 3 | Smit | 74 | 85 | 96 | 74 | 85 | 75 | 489 | 81.5000 |
| 3 | 3 | 4 | Tejasv | 89 | 98 | 59 | 96 | 75 | 93 | 510 | 85.0000 |
| 4 | 4 | 5 | Uzzama | 82 | 83 | 84 | 94 | 97 | 97 | 537 | 89.5000 |

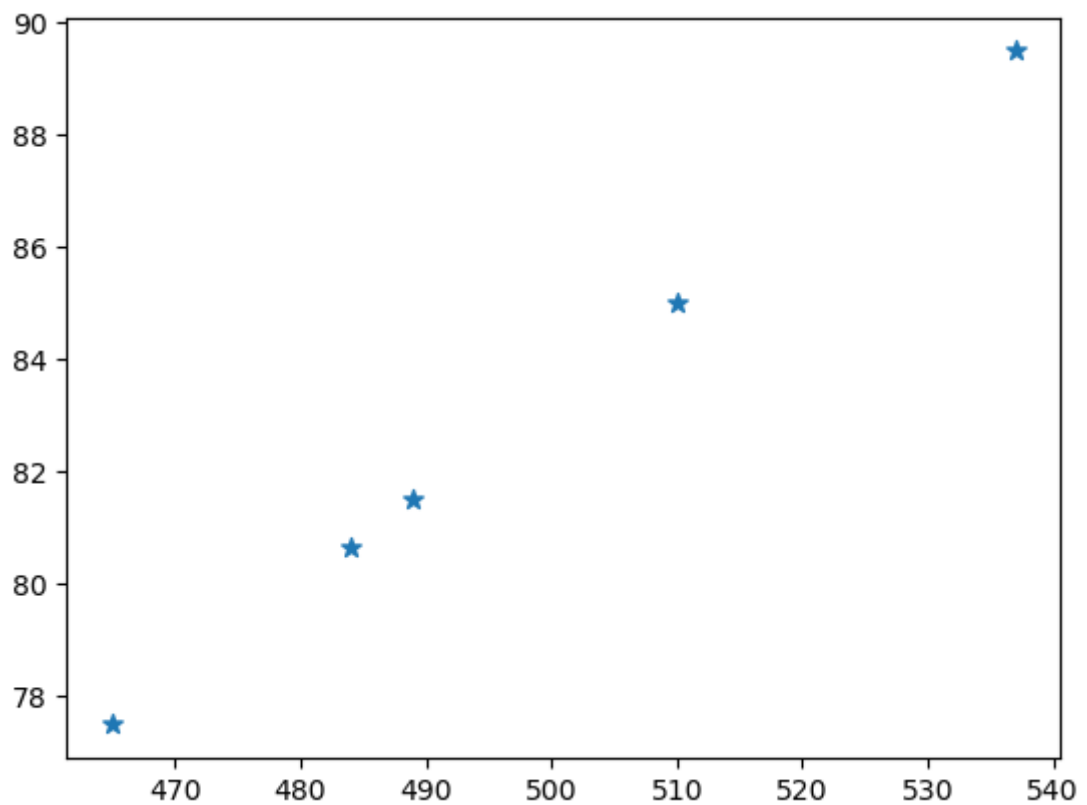
```
In [55]: #plotting the scatter graph using the matplotlib
plt.scatter(studentdata['Total'],studentdata['Avg'],s=40)
plt.show
```

```
Out[55]: <function matplotlib.pyplot.show(close=None, block=None)>
```



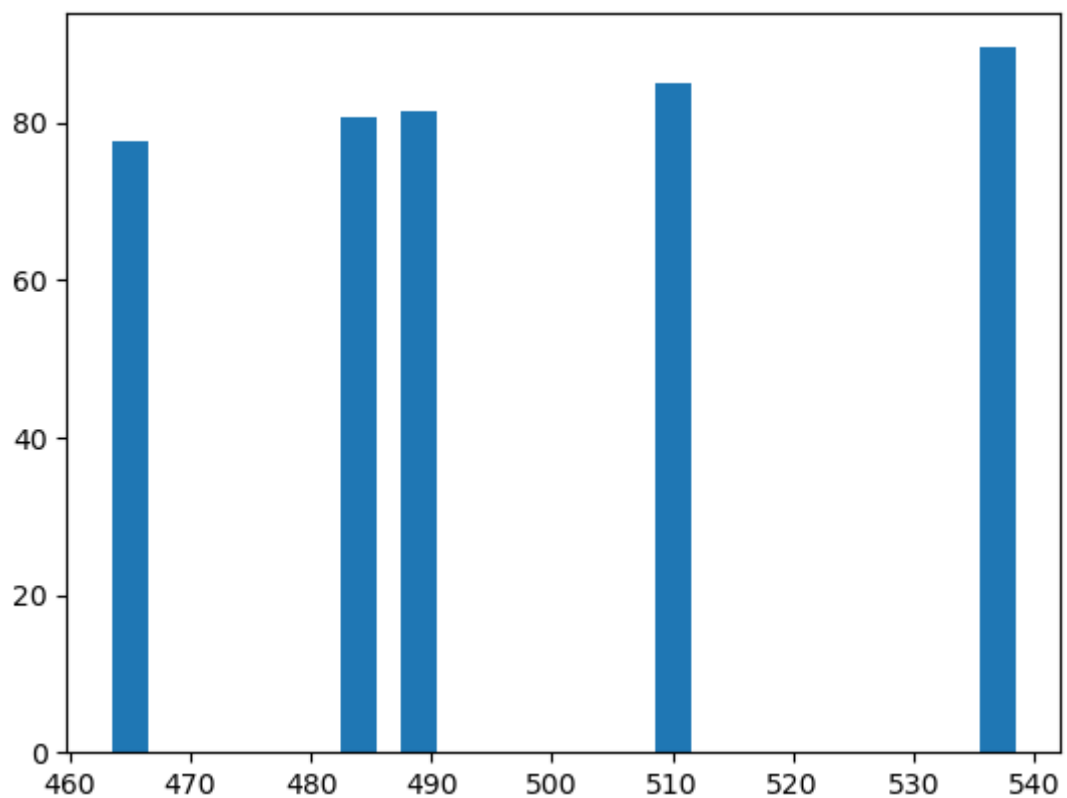
```
In [58]: plt.scatter(studentdata['Total'],studentdata['Avg'],s=50,marker="*")  
plt.show
```

```
Out[58]: <function matplotlib.pyplot.show(close=None, block=None)>
```



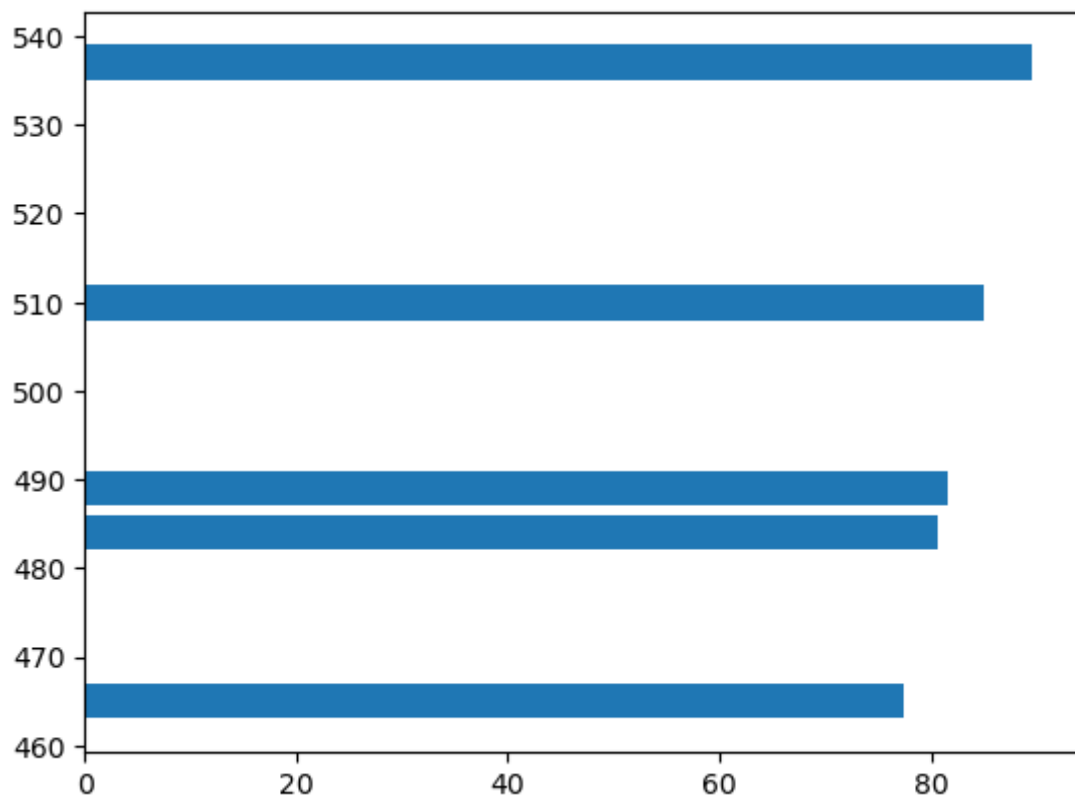
```
In [64]: plt.bar(studentdata['Total'],studentdata['Avg'],width=3)
```

```
Out[64]: <BarContainer object of 5 artists>
```



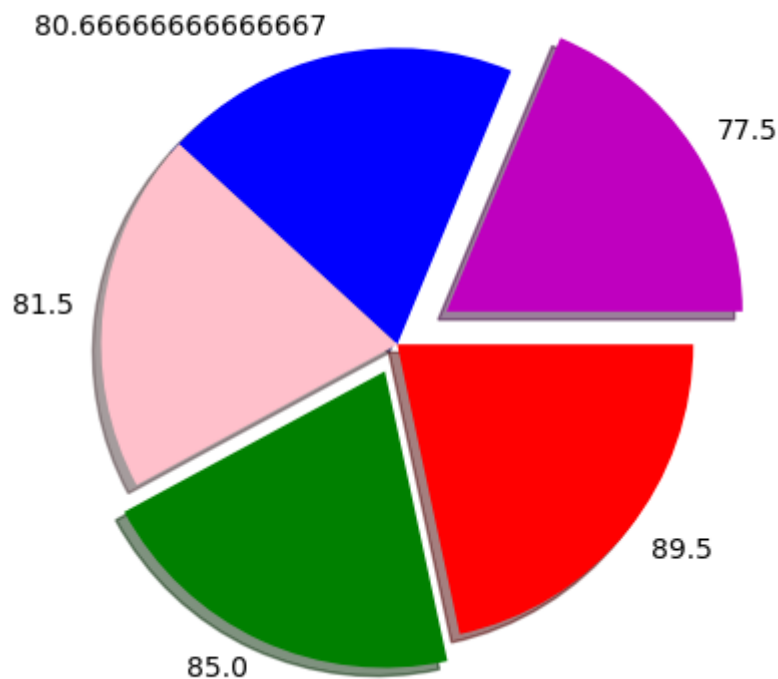
```
In [87]: plt.barh(studentdata['Total'],studentdata['Avg'],height=4)
```

```
Out[87]: <BarContainer object of 5 artists>
```




```
In [85]: c=[0.2,0,0,0.1,0]
color=['m','b','pink','g','r']
plt.pie(studentdata['Total'],labels=studentdata['Avg'],shadow=True,explode=
# plt.legend(title="Avg-Marks")
```

```
Out[85]: ([<matplotlib.patches.Wedge at 0x23db83fed90>,
<matplotlib.patches.Wedge at 0x23db8414050>,
<matplotlib.patches.Wedge at 0x23db84157d0>,
<matplotlib.patches.Wedge at 0x23db83568d0>,
<matplotlib.patches.Wedge at 0x23db84209d0>],
[Text(1.0817657522333275, 0.720959677995284, '77.5'),
Text(-0.23663135318030423, 1.0742465278938806, '80.66666666666667'),
Text(-1.0915684656078286, 0.13593485531890137, '81.5'),
Text(-0.502133438659076, -1.0898908247069574, '85.0'),
Text(0.856098931494362, -0.6907203627331482, '89.5')])
```



In []: