In [1]:
```
from scipy import special
a = special.exp10(3)
print(a)
```
```
1000.0
```

In [3]:
```
b=special.exp2(3)
print (b)
```
```
8.0
```

In [4]:
```
c = special.sindg(90)
print(c)
```
```
1.0
```

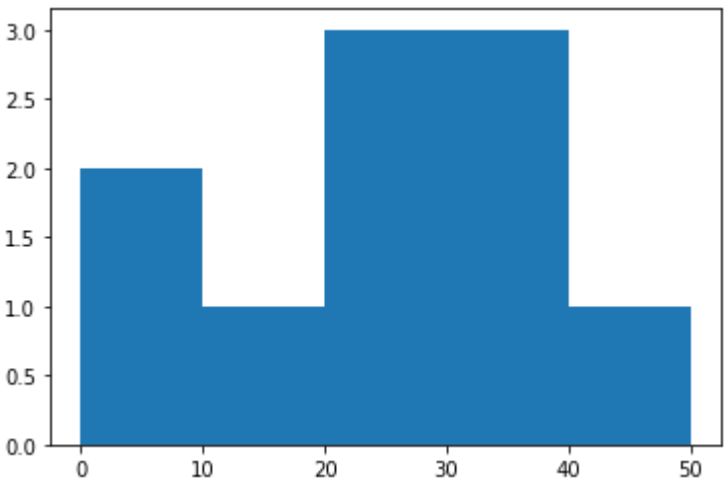
In [7]:
```
d = special.cosdg(0)
print(d)
```
```
1.0
```

In [11]:
```
from scipy import special
from scipy import integrate
a= lambda x:special.exp2(3)
b = integrate.quad(a, 0, 1)
print(b)
```
```
(8.0, 8.881784197001252e-14)
```

In [5]:
```
import matplotlib.pyplot as plt
import numpy as np
```

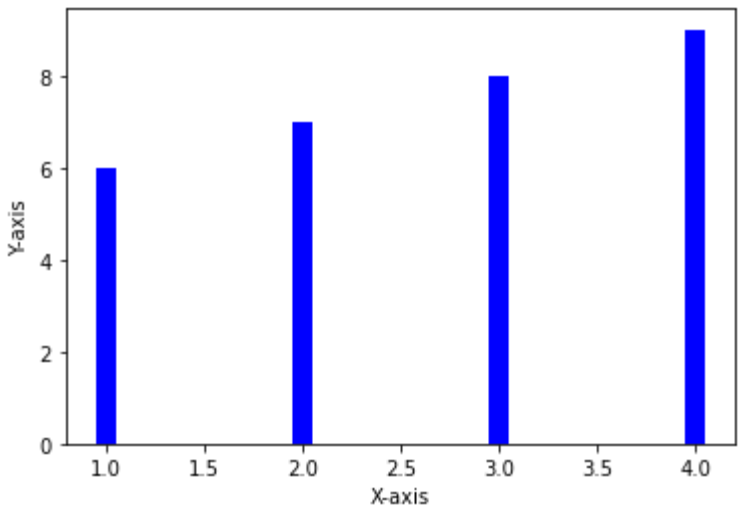
In [7]:
```
a=np.array([22,32,31,5,43,11,51,5,31,22,55,27,55])
bins=[0,10,20,30,40,50]
plt.hist(a,bins)
```

Out[7]:
```
(array([2., 1., 3., 3., 1.]),
 array([ 0, 10, 20, 30, 40, 50]),
 <BarContainer object of 5 artists>)
```



In [9]:
```
x=[1,2,3,4]
y=[6,7,8,9]
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
plt.bar(x,y,width=[0.1,0.1,0.1,0.1],color='b')
```

Out[9]: <BarContainer object of 4 artists>



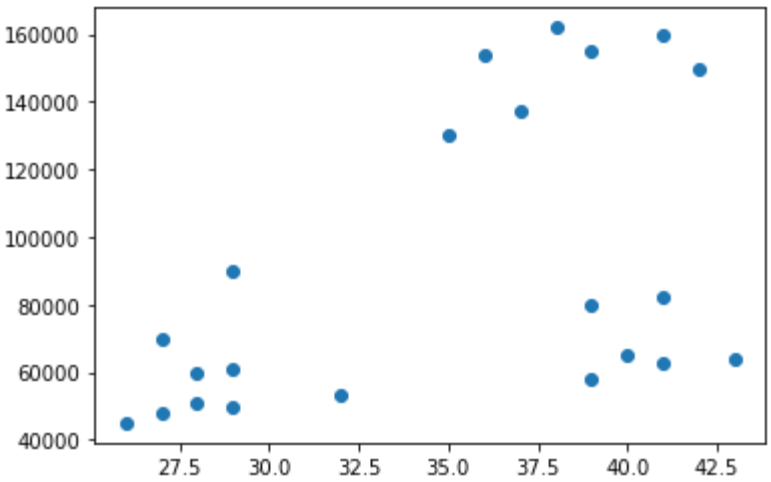
In [12]:
```
import pandas as pd
dataframe=pd.read_csv("F:\ADC_LAB\employee.csv")

dataframe
```

Out[12]:

	Name	Age	salary
0	developer	27	70000
1	developer	29	90000
2	manager	29	61000
3	manager	28	60000
4	tester	42	150000
5	tester	39	155000
6	tester	41	160000
7	developer	38	162000
8	manager	36	154000
9	manager	35	130000
10	developer	37	137000
11	tester	26	45000
12	manager	27	48000
13	manager	28	51000
14	developer	29	49500
15	developer	32	53000
16	manager	40	65000
17	developer	41	63000
18	developer	43	64000
19	developer	39	80000
20	developer	41	82000
21	developer	39	58000

In [13]:
```
from matplotlib import pyplot as pl
pl.scatter(dataframe['Age'],dataframe['salary'])
```

Out[13]: <matplotlib.collections.PathCollection at 0x161afbf8370>



In [18]:
```
dataframe1=pd.read_excel("F:\AIML\Elective.xlsx")
dataframe1
```

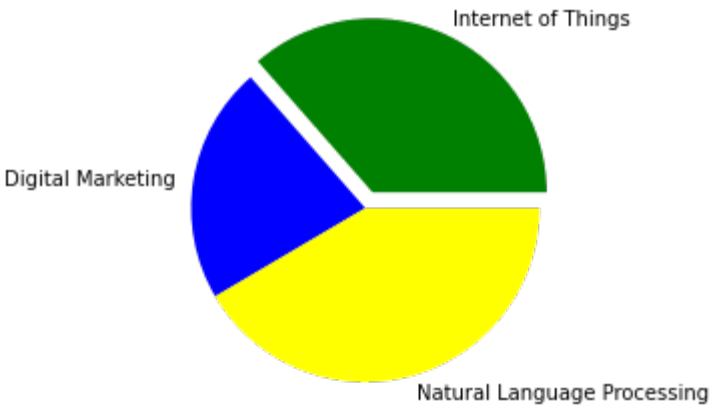
Out[18]:

	Timestamp	Name	Division	Roll No. (MCA2022XXX)	Elective	Elec
0	2023-03-28 14:40:57.467	Namrata Baviskar	A	MCA 20220005	Internet of Things	Digital Marketing & Business Analytics
1	2023-03-28 14:44:58.366	Ajay Thorat	B	MCA2022134	Internet of Things	Natural Language Processing
2	2023-03-28 14:46:44.953	Vishal Vijay Shewale	B	MCA2022122	Internet of Things	Digital Marketing & Business Analytics
3	2023-03-28 14:48:08.043	Eshaan Gupta	B	085	Internet of Things	Natural Language Processing
4	2023-03-28 14:52:01.278	DIPESH MUKUND SURYWANSHI	A	MCA2022063	Internet of Things	Natural Language Processing
...	...	...	...	...	...	...
105	2023-03-31 12:22:00.546	Atul Vishwakarma	B	MCA2022136	Internet of Things	Digital Marketing & Business Analytics
106	2023-03-31 12:23:09.627	NEHAL Tawade	A	MCA2022064	Internet of Things	Natural Language Processing
107	2023-03-31 13:40:51.275	Sushmita giri	B	82	Internet of Things	Digital Marketing & Business Analytics
108	2023-03-31 13:40:53.099	Siddhi Darde	B	MCA2022076	Internet of Things	Digital Marketing & Business Analytics
109	2023-03-31 21:50:25.914	Namrata Baviskar	A	MCA20220005	Internet of Things	Natural Language Processing

110 rows × 6 columns

In [20]:
```
labels='Internet of Things','Digital Marketing','Natural Language Processing'
sizes=[215,130,245]
colors=['green','blue','yellow']
explode=(0.1,0,0)
plt.pie(sizes,explode=explode,labels=labels,colors=colors)
plt.axis=equal
```

Out[20]:
```
([<matplotlib.patches.Wedge at 0x161b445d130>,
  <matplotlib.patches.Wedge at 0x161b445d610>,
  <matplotlib.patches.Wedge at 0x161b445daf0>],
 [Text(0.4958545726332336, 1.0927617502450904, 'Internet of Things'),
  Text(-1.0859952075471382, 0.17496973791101264, 'Digital Marketing'),
  Text(0.2894129267474994, -1.0612446267621083, 'Natural Language Processin
g')])
```



In [ ]: