In [1]:
```
#Name: Rajshri Kirandas Satpute
#Roll No: 55
#Year :3rd year
#Section: B
#Date :14-03-2024
```

Data Visualization

In [2]:
```
#Importing the basic library
import numpy as np
from matplotlib import pyplot as plt
```

In [3]:
```
x=np.arange(1,11)
```

In [4]:
```
x
```

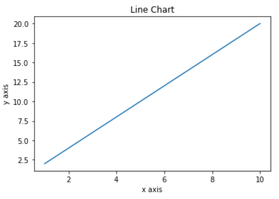
Out[4]:
```
array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```

In [5]:
```
y=x*2
```

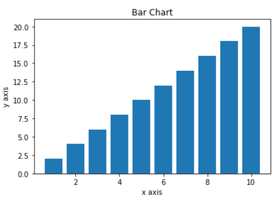
In [6]:
```
y
```

Out[6]:
```
array([ 2,  4,  6,  8, 10, 12, 14, 16, 18, 20])
```

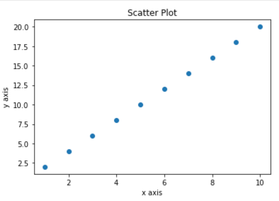
In [7]:
```
#Line Chart
plt.plot(x,y)
plt.title("Line Chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



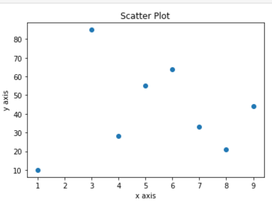
In [9]:
```
#Bar Chart
plt.bar(x,y)
plt.title("Bar Chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



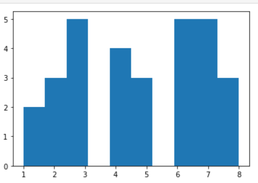
In [11]:
```
#Scatter Plot
plt.scatter(x,y)
plt.title("Scatter Plot")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



In [12]:
```
#Scatter Plot
a=(1,5,8,6,3,7,9,4)
b=(10,55,21,64,85,33,44,28)
plt.scatter(a,b)
plt.title("Scatter Plot")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



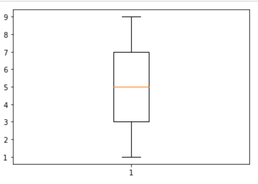
In [26]:
```
#Histogram
H=[1,1,2,2,2,3,3,3,3,3,6,6,6,6,6,5,5,5,4,4,4,4,7,7,7,7,7,8,8,8,8]
plt.hist(H)
plt.show()
```



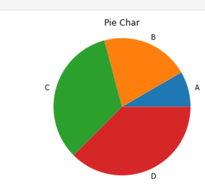
In [27]:
```
type(H)
```

Out[27]:
```
list
```

In [30]:
```
#Box Plot
B=[1,2,3,4,5,6,7,8,9]
plt.boxplot(B)
plt.show()
```



In [35]:
```
#Pie Chart
sizes=[10,25,40,45]
labels='A','B','C','D'
plt.pie(sizes,labels=labels)
plt.title('Pie Char')
plt.axis('equal')
plt.show()
```



In [ ]:
```
```

In [ ]:
```
```