#### Line Chart:

Input:

import matplotlib.pyplot as plt

$$x=[1,2,3,4,5]$$

$$y=[10,20,30,40,50]$$

plt.plot(x,y)

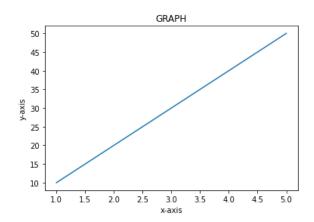
plt.xlabel("x-axis")

plt.ylabel("y-axis")

plt.title("GRAPH")

plt.show()

#### Output:



Bar Chart:

Input:

$$x=[1,2,3,4,5]$$

$$y=[10,20,30,40,50]$$

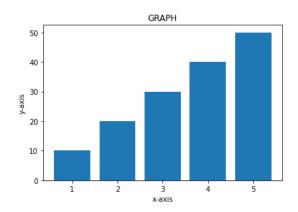
plt.bar(x,y)

plt.xlabel("x-axis")

plt.ylabel("y-axis")

plt.title("GRAPH")

plt.show()



Line Plot:

Input:

x=[1,2,3,4,5]

y=[10,30,20,40,50]

plt.plot(x,y,marker = 'o', ms="10", color="red")

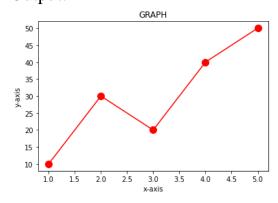
plt.xlabel("x-axis")

plt.ylabel("y-axis")

plt.title("GRAPH")

plt.show()

## Output:



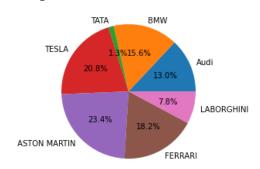
Pie Chart:

Input:

cars=["Audi","BMW","TATA","TESLA","ASTON MARTIN","FERRARI","LABORGHINI"]

```
price=[50,60,5,80,90,70,30]
plt.pie(price,labels=cars ,autopct='%1.1f%%')
plt.show()
```

#### Output:



### **Custom Styling Line Plot:**

```
Input:
```

```
x=[1,2,3,4,5]
```

y=[10,30,20,40,60]

plt.figure(figsize=(4,4))

plt.plot(x,y,marker="\*", ms="15", mec="red",linestyle="dashdot",color="blue")

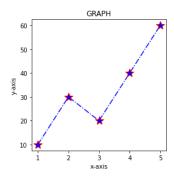
plt.tick\_params()

plt.xlabel("x-axis")

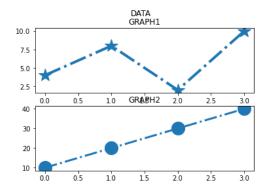
plt.ylabel("y-axis")

plt.title("GRAPH")

plt.show()



```
Sub-plot:
Input:
import numpy as np
x = np.array([0, 1, 2, 3])
y = np.array([4, 8, 2, 10])
plt.subplot(2, 1, 1)
plt.title("GRAPH1")
plt.plot(x,y, linestyle="dashdot",marker="*",ms="20",linewidth="4")
x = np.array([0, 1, 2, 3])
y = np.array([10, 20, 30, 40])
plt.subplot(2, 1, 2)
plt.plot(x,y, linestyle="dashdot",marker="o",ms="20",linewidth="3")
plt.title("GRAPH2")
plt.suptitle("DATA")
plt.show()
Output:
```



### Sub-plot in SINGLE LINE:

```
Input:
```

```
import numpy as np
import matplotlib.pyplot as plt
x = np.array([0, 1, 2, 3])
y = np.array([3, 8, 1, 10])
plt.subplot(1, 2, 1)
plt.plot(x,y)
plt.title("SALES")
x = np.array([0, 1, 2, 3])
y = np.array([10, 20, 30, 40])
plt.subplot(1, 2, 2)
plt.plot(x,y)
plt.title("INCOME")
plt.suptitle("MY SHOP")
plt.show()
```



# Histogram:

Input:

import matplotlib.pyplot as plt

import numpy as np

x = np.random.normal(170, 10, 250)

plt.hist(x)

plt.show()

