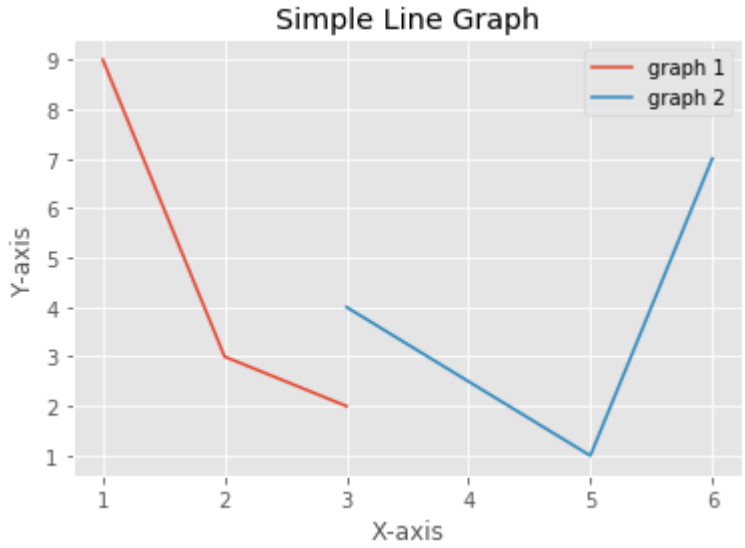
In [1]:

```
#Line Graph
```

In [2]:

```
#Simple Line Graph
from matplotlib import pyplot as plt

#using style option
from matplotlib import style

#graph 1
x1=[1,2,3]
y1=[9,3,2]
#graph 2
x2=[3,5,6]
y2=[4,1,7]

style.use('ggplot')
#graph 1
plt.plot(x1,y1,label="graph 1")
#graph 2
plt.plot(x2,y2,label="graph 2")

#graph title and x and y axis
plt.title("Simple Line Graph")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")

#legend is used to show graph labels
plt.legend()

plt.show()
```

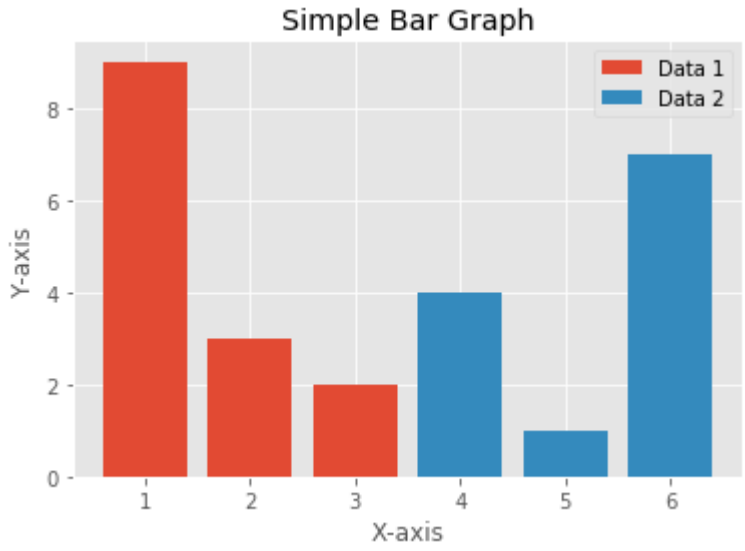


In [3]:

```
#Bar Graph
```

In [4]:

```
#Simple Bar Graph
from matplotlib import pyplot as plt

#using style option
from matplotlib import style

#graph 1
x1=[1,2,3]
y1=[9,3,2]

#graph 2
x2=[4,5,6]
y2=[4,1,7]

#style.use('ggplot')

#graph 1
plt.bar(x1,y1,label="Data 1")
#graph 2
plt.bar(x2,y2,label="Data 2")

#graph title and x and y axis
plt.title("Simple Bar Graph")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")

#legend is used to show graph labels
plt.legend()

plt.show()
```

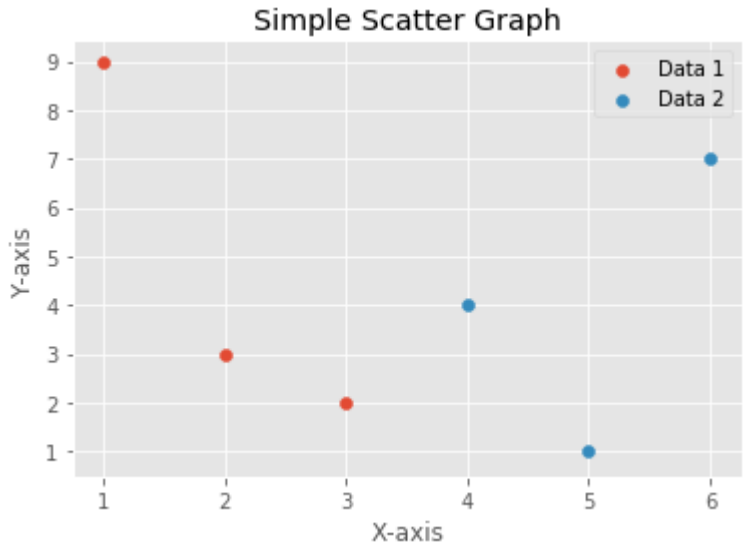


In [5]:

```
#Scatter Graph
```

In [6]:

```
#Simple Scattter Graph
from matplotlib import pyplot as plt

#using style option
from matplotlib import style

#graph 1
x1=[1,2,3]
y1=[9,3,2]

#graph 2
x2=[4,5,6]
y2=[4,1,7]

#style.use('ggplot')

#graph 1
plt.scatter(x1,y1,label="Data 1")
#graph 2
plt.scatter(x2,y2,label="Data 2")

#graph title and x and y axis
plt.title("Simple Scatter Graph")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")

#legend is used to show graph labels
plt.legend()

plt.show()
```

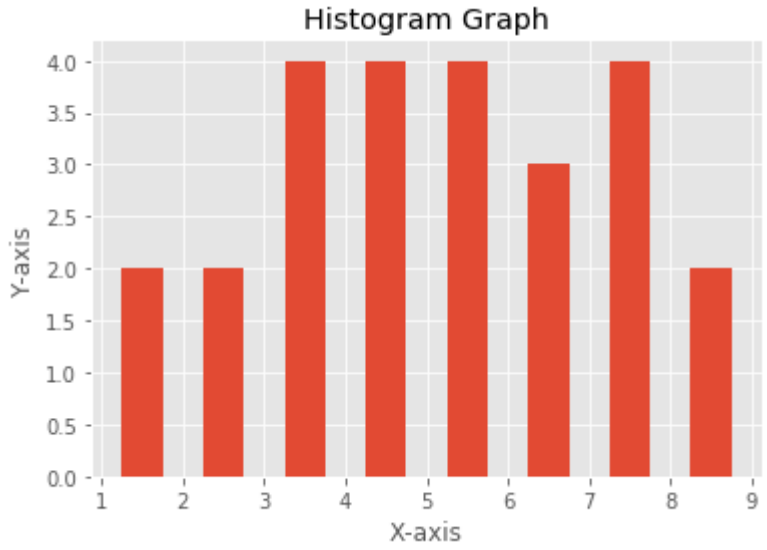


In [7]:

```
#Histogram
```

In [8]:

```
#Simple Histogram Graph
from matplotlib import pyplot as plt


x=[1,2,3,5,3,6,7,3,1,4,5,6,7,3,2,4,5,4,6,7,9,8,4,7,5]
y=[1,2,3,4,5,6,7,8,9]

plt.hist(x,y,histtype='bar',rwidth=0.5)

#graph title and x and y axis
plt.title("Histogram Graph")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")

#legend is used to show graph labels
plt.legend()

plt.show()
```

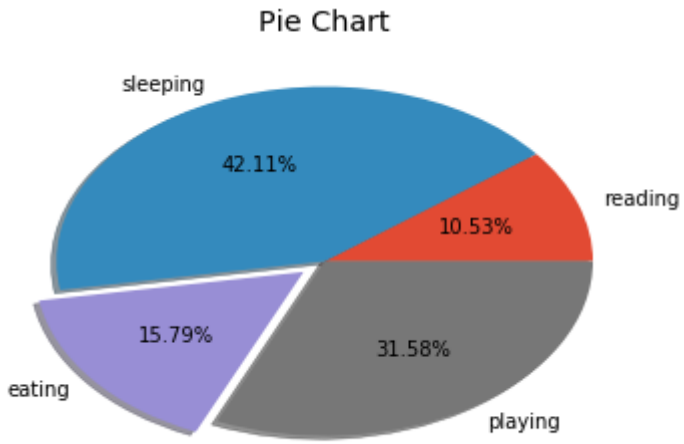


In [9]:

```
#Pie Chart
```

In [10]:

```
#Simple Histogram Graph
from matplotlib import pyplot as plt


slices=[2,8,3,6]
activities=['reading','sleeping','eating','playing']

#how to extract eating by explode is shown below and how to add auto percentage
plt.pie(slices,labels=activities,shadow=True,explode=(0,0,0.1,0),autopct='%1.2f%%')


#graph title and x and y axis
plt.title("Pie Chart")

plt.show()
```



In [11]:

```
#Multiple Graphs in one using sublot
```

In [12]:

```
#Simple Line Graph
from matplotlib import pyplot as plt

#graph 1
x1=[1,2,3]
y1=[9,3,2]

plt.subplot(121)

#graph 1
plt.plot(x1,y1,label="graph 1")

#graph title and x and y axis
plt.title("Simple Line Graph")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")
plt.legend()

############################

#Simple Scattter Graph

#graph 2
x2=[4,5,6]
y2=[4,1,7]

plt.subplot(122)

#graph 2
plt.scatter(x2,y2,label="graph 2")

#graph title and x and y axis
plt.title("Simple Scatter Graph")
plt.xlabel("X-axis")
plt.ylabel("Y-axis")

#legend is used to show graph labels
plt.legend()

plt.show()
```