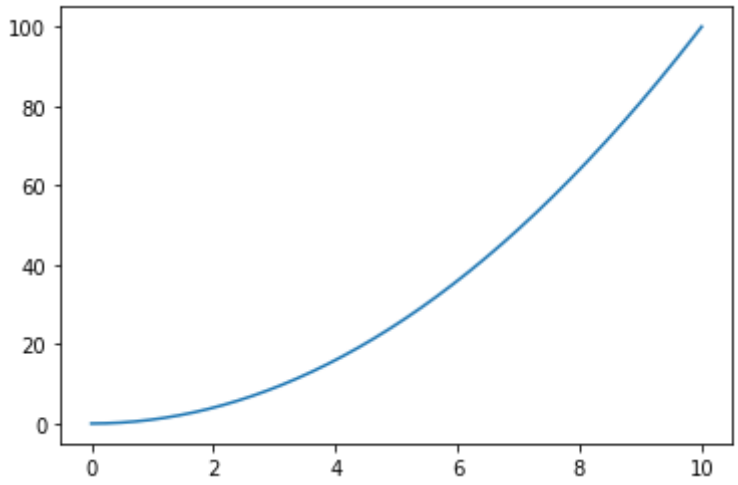
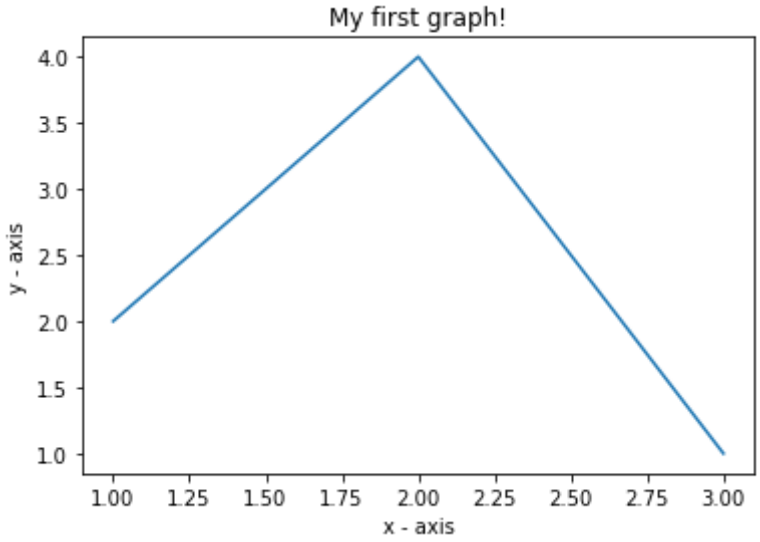
In [1]:
```
import numpy as np
import matplotlib . pyplot as plt
x = np. linspace (0 , 10, 1000)
y = np.power(x , 2)
plt . plot (x , y)
plt .show()
```

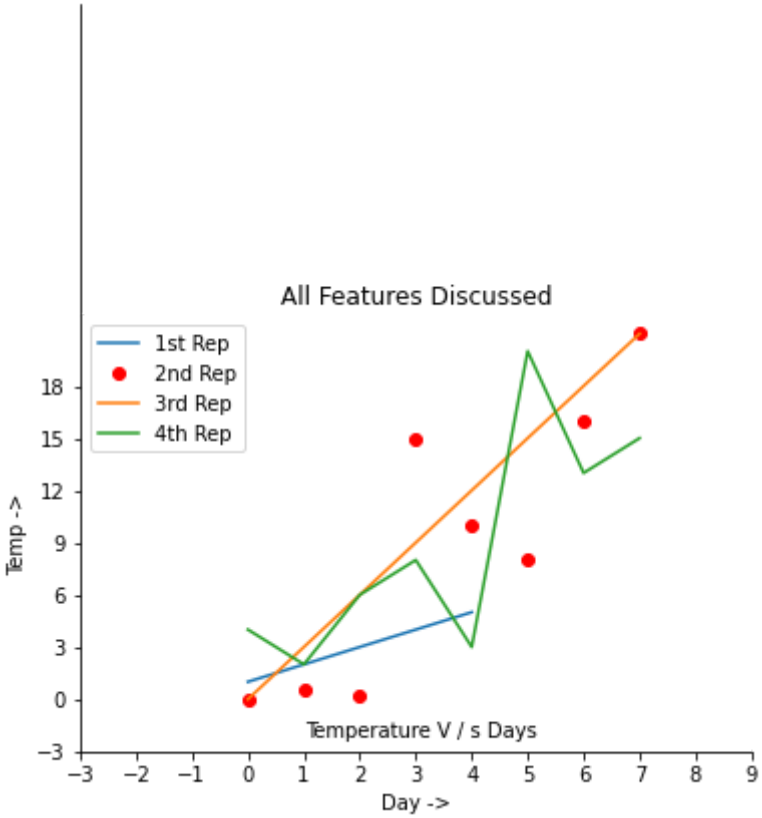


In [2]:
```
# importing the required module
import matplotlib.pyplot as plt

# x axis values
x = [1,2,3]
# corresponding y axis values
y = [2,4,1]

# plotting the points
plt.plot(x, y)

# naming the x axis
plt.xlabel('x - axis')
# naming the y axis
plt.ylabel('y - axis')

# giving a title to my graph
plt.title('My first graph!')

# function to show the plot
plt.show()
```



In [3]:

```
import matplotlib.pyplot as plt


a = [1, 2, 3, 4, 5]
b = [0, 0.6, 0.2, 15, 10, 8, 16, 21]
plt.plot(a)

# o is for circles and r is
# for red
plt.plot(b, "or")

plt.plot(list(range(0, 22, 3)))

# naming the x-axis
plt.xlabel('Day ->')

# naming the y-axis
plt.ylabel('Temp ->')

c = [4, 2, 6, 8, 3, 20, 13, 15]
plt.plot(c, label = '4th Rep')

# get current axes command
ax = plt.gca()

# get command over the individual
# boundary line of the graph body
ax.spines['right'].set_visible(False)
ax.spines['top'].set_visible(False)

# set the range or the bounds of
# the left boundary line to fixed range
ax.spines['left'].set_bounds(-3, 40)

# set the interval by  which
# the x-axis set the marks
plt.xticks(list(range(-3, 10)))

# set the intervals by which y-axis
# set the marks
plt.yticks(list(range(-3, 20, 3)))

# legend denotes that what color
# signifies what
ax.legend(['1st Rep', '2nd Rep', '3rd Rep', '4th Rep'])

# annotate command helps to write
# ON THE GRAPH any text xy denotes
# the position on the graph
plt.annotate('Temperature V / s Days', xy = (1.01, -2.15))

# gives a title to the Graph
plt.title('All Features Discussed')

plt.show()
```



In [4]:

```
# Python Program to
# show range() basics

# printing a number
for i in range(10):
    print(i, end =" ")
print()

# using range for iteration
l = [10, 20, 30, 40]
for i in range(len(l)):
    print(l[i], end =" ")
print()

# performing sum of natural
# number
sum = 0
for i in range(1, 11):
    sum = sum + i
print("Sum of first 10 natural number :", sum)
```

```
0 1 2 3 4 5 6 7 8 9
10 20 30 40
Sum of first 10 natural number : 55
```