Using Python, draw a X-Y graph.

In [1]:
```python
import matplotlib.pyplot as plt
```

In [5]:
```python
#Take the first array as input
input_string1 = input("Enter elements of the first list separated by space ")
list1 = input_string1.split()
#Convert each item to int type
for i in range(len(list1)):
    list1[i] = int(list1[i])

#Take the second array as input
input_string2 = input("Enter elements of the second list separated by space ")
list2 = input_string2.split()
#Convert each item to int type
for i in range(len(list2)):
    list2[i] = int(list2[i])

#Print the integer lists
print("First list: ", list1)
print("Second list: ", list2)
```

```
Enter elements of the first list separated by space 1 2 3 4 5
Enter elements of the second list separated by space 3 5 7 2 1
First list:  [1, 2, 3, 4, 5]
Second list:  [3, 5, 7, 2, 1]
```

In [3]:
```python
# Line graph
plt.figure()
plt.plot(x, y, color='blue', label='Line Graph')
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.title('Line Graph Example')
plt.grid(True)
plt.legend()
plt.show()
```

Line Graph Example
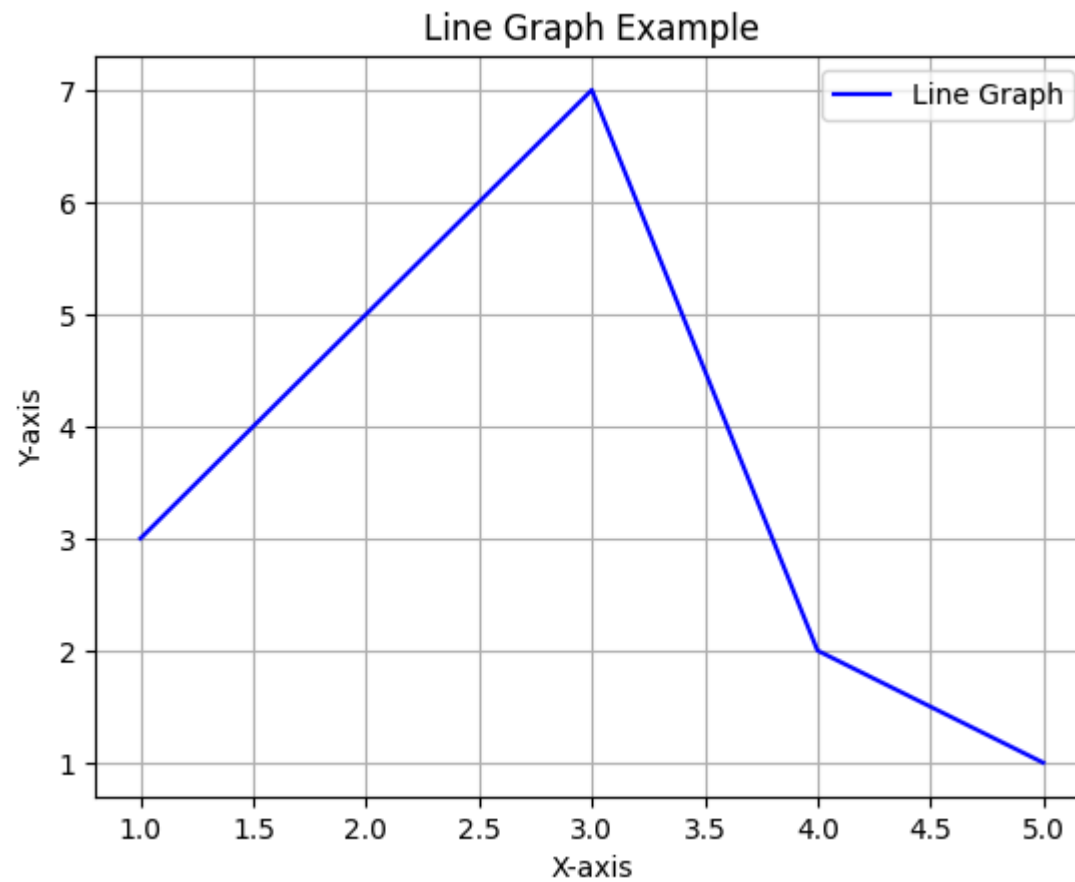
In [4]:
```python
# Bar graph
plt.figure()
plt.bar(x, y, color='yellow', label='Bar Graph')
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.title('Bar Graph Example')
plt.grid(True)
plt.legend()
plt.show()
```

Bar Graph Example
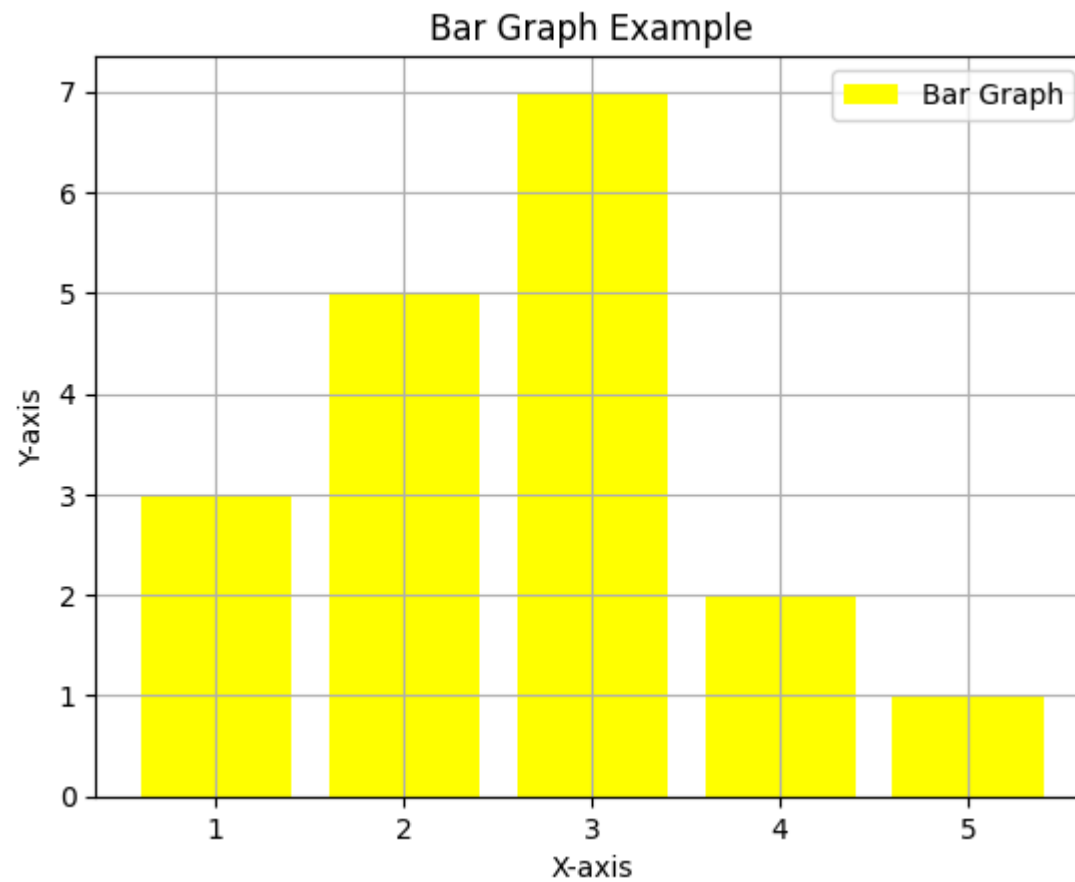

```python
In [5]:  # Histogram
         plt.figure()
         plt.hist(y, bins=5, color='green', edgecolor='black', label='Histogram')
         plt.xlabel('Y-axis')
         plt.ylabel('Frequency')
         plt.title('Histogram Example')
         plt.grid(True)
         plt.legend()
         plt.show()
```

Histogram Example
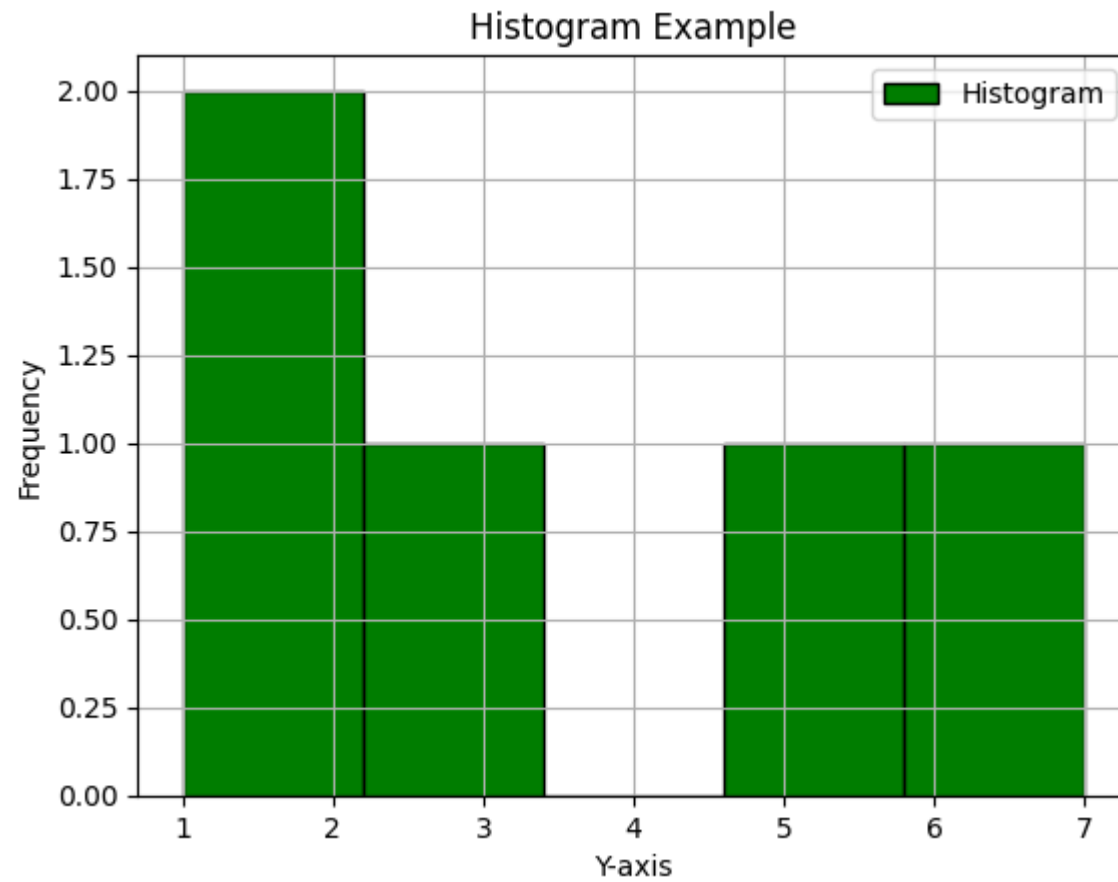

```
In [6]:  # Scatter plot
         plt.figure()
         plt.scatter(x, y, color='red', label='Scatter Plot')
         plt.xlabel('X-axis')
         plt.ylabel('Y-axis')
         plt.title('Scatter Plot Example')
         plt.grid(True)
         plt.legend()
         plt.show()
```

Scatter Plot Example
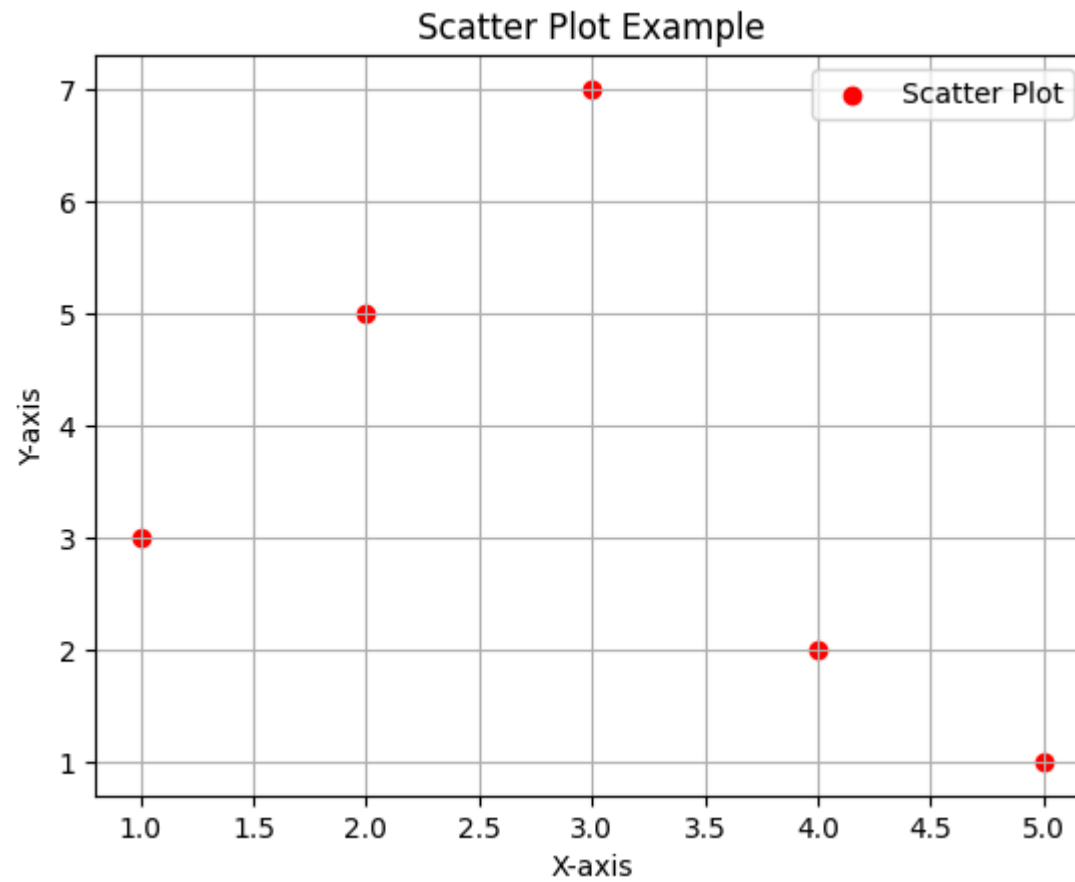

```
In [7]:  # Pie chart
         plt.figure()
         plt.pie(y, labels=x, autopct='%1.1f%%', startangle=90, colors=['yellow', 'orange', 'red', 'green', 'blue'])
         plt.title('Pie Chart Example')
         plt.axis('equal')
         plt.show()
```

Pie Chart Example