(1) python program to calculate the average of list item.

In [21]:
```
list1 = [1,2,3,4,5,6]
sum = 0
for i in list1:
    sum += i
ave = sum/6
print(ave)
```

```
3.5
```

(2) python program to print list items greater than average.

In [24]:
```
list1 = [1,2,3,4,5,6]
list2 = []
sum = 0
for i in list1:
    sum += i
ave = sum/6
for i in list1:
    if i>ave:
        list2.append(i)
print(list2)
```

```
[4, 5, 6]
```

(3) python program to print list items at even position.

In [15]:
```
list1 = [1,2,3,4,5,6]
print(list1[1:7:2])
```

```
[2, 4, 6]
```

(4) python program to print list items at odd position.

In [16]:
```
list1 = [1,2,3,4,5,6]
print(list1[0:7:2])
```

```
[1, 3, 5]
```

(5) python program to even number in list.

In [8]:
```
list1 = [1,2,3,4,8,6]
for i in list1:
    if i%2==0:
        print(i,end=" ")
```

```
2 4 8 6
```

(6) python program to odd number in list.

In [13]:
```
list1 = [1,2,3,4,8,6,7,9]
for i in list1:
    if i%2!=0:
        print(i,end=" ")
```

```
final list is :
1 3 7 9
```

(7) python program to print positive number.

In [18]:
```
list1 = [1,2,-5,-3,6,-9]
for i in list1:
    if i>=0:
        print(i,end=" ")
    else:
        pass
```

```
1 2 6
```

(8) python program to print positive number.

In [19]:
```
list1 = [1,2,-5,-3,6,-9]
for i in list1:
    if i<0:
        print(i,end=" ")
    else:
        pass
```

```
-5 -3 -9
```

(9) python program to put even and odd numbers in seprate list.

In [27]:
```
list1 = []
list2 = []
list3 = [1,2,-5,-3,6,-9]
for i in list3:
    if i%2==0:
        list1.append(i)
    if i%2!=0:
        list2.append(i)
print(list1)
print(list2)
```

```
[2, 6]
[1, -5, -3, -9]
```

(10) python program to put positive and negative numbers in seprate list.

In [25]:
```
list1 = []
list2 = []
list3 = [1,2,-5,-3,6,-9]
for i in list3:
    if i>=0:
        list1.append(i)
    if i<0:
        list2.append(i)
print(list1)
print(list2)
```

```
[1, 2, 6]
[-5, -3, -9]
```

(11) python program to remove duplicates from list.

In [33]:
```
list2 = []
list1 = [1,2,34,2,6,9,10,4,6]
for i in list1:
    if i not in list2:
        list2.append(i)
print(list2)
```

```
[1, 2, 34, 6, 9, 10, 4]
```

(12) python program to remove even number in list.

In [14]:
```
list2 = []
list1 = [1,2,3,4,5,6]
for i in list1:
    if i%2!=0:
        list2.append(i)
print(list2)
```

```
[1, 3, 5]
```

(13) python program to revers list item.

In [24]:
```
list1 = [1,2,3,4,5,6]
list1.reverse()
print(list1)
```

```
[6, 5, 4, 3, 2, 1]
```

(14) python program to print second largest number.

In [15]:
```
list1 = [1,3,5,6,7,2,23,65,100]
list2 = []
for i in list1:
    list2.append(i)
list2.sort()
print(list2[1])
```

```
2
```

(15) python program to sort list items in ascending order.

In [5]:
```
list1 = [1,45,32,60,3,8,100]
list1.sort()
print(list1)
```

```
[1, 3, 8, 32, 45, 60, 100]
```

(16) python program to sort list items in descending order.

In [7]:
```
list1 = [1,45,32,60,3,8,100]
list1.sort(reverse=True)
print(list1)
```

```
[100, 60, 45, 32, 8, 3, 1]
```

(17) python program to print smallest number in list.

In [25]:
```
list1 = [45,32,60,3,8,100]
list1.sort()
print(list1[0])
```

```
3
```

(18) python program to find sum of even and odd number in list.

In [18]:
```
list1 = [1,4,5,51,23,5,7,2]
es = 0
os = 0
for i in list1:
    if i%2==0:
        es += i
    else:
        os += i
print("even sum is:",es)
print("odd sum is:",os)
```

```
even sum is: 6
odd sum is: 92
```

(19) python program to left rotate a list by n.

In [17]:
```
list1 = [1,3,4,6,2,3,4,51]
n = int(input("how many steps you want to left rotate:"))
print(list1[n:]+list1[:n])
```

```
how many steps you want to left rotate:3
[6, 2, 3, 4, 51, 1, 3, 4]
```

(20) python program to right rotate a list by n.

In [16]:
```
list1 = [1,3,4,6,2,3,4,51]
n = int(input("how many steps you want to right rotate:"))
print(list1[-n:]+list1[:-n])
```

```
how many steps you want to right rotate:3
[3, 4, 51, 1, 3, 4, 6, 2]
```