1. Write a Python Program to find sum of array?

In [3]:
```
n=int(input('enter nuimber of element '))
arr=[]
sum=0
for i in range(n):
    ele=float(input('enter element '))
    arr.append(ele)
for j in arr:
    sum=sum+j
print('the sum of array is ' ,sum)


```

```
enter nuimber of element 4
enter element 100
enter element 200
enter element 300
enter element 400
the sum of array is  1000.0
```

2. Write a Python Program to find largest element in an array?

In [12]:

```
n=int(input('enter number of element '))
arr1=[]
max=0
for i in range(n):
    ele=float(input('enter element '))
    arr1.append(ele)
for j in arr1:
    if j>max:
        max=j
else:
    print('max is: ',max)
print(f'max of array in {arr1} is {max}')
```

```
enter number of element 10
enter element 23
enter element 45
enter element 64
enter element 23
enter element 11
enter element 23
enter element 78
enter element 434
enter element 55
enter element 677
max is:  677.0
max of array in [23.0, 45.0, 64.0, 23.0, 11.0, 23.0, 78.0, 434.0, 55.0, 677.0] is 677.0
```

3. Write a Python Program for array rotation?

In [14]:

```
def rotate(a,d,n):
    temp=[]
    for i in range(d,n):
        temp.append(a[i])
    for i in range(0,d):
        temp.append(a[i])
    for i in range(n):
        a[i]=temp[i]
    return a
a=[]
n=int(input('enter the size of array\n'))
d=int(input('enter the number of rotation '))
for i in range(n):
    ele=float(input('enter the elements '))
    a.append(ele)
print(a)
print('the rotating array is:' ,rotate(a,d,n))


```

```
enter the size of array
5
enter the number of rotation 4
enter the elements 3
enter the elements 6
enter the elements 7
enter the elements 8
enter the elements 9
[3.0, 6.0, 7.0, 8.0, 9.0]
the rotating array is: [9.0, 3.0, 6.0, 7.0, 8.0]
```

4. Write a Python Program to Split the array and add the first part to the end?

In [19]:

```
def fun(a,s,n):
    temp1=[]
    temp2=[]
    for i in range(0,s):
        temp1.append(a[i])
    print('split array1 ',temp1)
    for i in range(s,n):
        temp2.append(a[i])
    print('split array2',temp2)
    a=(temp2+temp1).copy()
    return a
a=[]
n=int(input('size of array '))
for i in range(n):
    ele=float(input('enter the elements '))
    a.append(ele)
s=int(input('index number where array spilt '))
print('old array',a)
print('new array',fun(a,s,n))

```

```
size of array 5
enter the elements 3
enter the elements 4
enter the elements 5
enter the elements 6
enter the elements 6
index number where array spilt 3
old array [3.0, 4.0, 5.0, 6.0, 6.0]
split array1  [3.0, 4.0, 5.0]
split array2 [6.0, 6.0]
new array [6.0, 6.0, 3.0, 4.0, 5.0]
```

5. Write a Python Program to check if given array is Monotonic?

In [33]:

```
def monotonic(a,n):
    for i in range(n-1):
        if (a[i]>=a[i+1]):
            continue
        else:
            break
    for i in range(n-1):
        if (a[i]<=a[i+1]):
            continue
        else:
            return False
    else:
        return True
a=[3,4,5,6.,7,8]
n=len(a)
monotonic(a,n)
```

Out[33]: True

In [ ]:

```
1
```

In [ ]:

```
1
```