Que:-1 Write a Python Program to find sum of array?

In [1]:
```
#solution-

def sum_1():
    array_1 = eval(input("Enter the array:-"))
    sum = 0
    for i in range(0,len(array_1)): #using for loop
        sum = sum + array_1[i]
    print(f"The sum of {array_1} is {sum}")
sum_1()
```

```
Enter the array:-[1,2,3,4,5,9]
The sum of [1, 2, 3, 4, 5, 9] is 24
```

In [2]:
```
#solution:-
#Using a builtin function(sum):-

def array_1():
    array_2 = eval(input("Enter the array:-"))
    print(f"The sum of {array_2} is {sum(array_2)}")
array_1()
```

```
Enter the array:-[1,2,3,4,5,9]
The sum of [1, 2, 3, 4, 5, 9] is 24
```

Que:-2 Write a Python Program to find largest element in an array?

In [5]:
```
#solution:-

def largest():
    a = 0
    array_1 = eval(input("Enter the array:-"))

    for i in range(0,len(array_1)):
        if a>array_1[i]:
            print(f"The largest number from {a}")
        else:
            a = array_1[i]
largest()

```

```
Enter the array:-[1, 2, 3, 4, 77, 99,67]
The largest number from 99
```

In [6]:
```
#solution:
#Using Sorted

def largest():
    arr = eval(input("Enter the Array: "))
    print(f"The Largest Element in {arr} is {sorted(arr)[-1]}")

largest()

```

```
Enter the Array: [1, 2, 3, 4, 77, 99,67]
The Largest Element in [1, 2, 3, 4, 77, 99, 67] is 99
```

Que:-3 Write a Python Program for array rotation ?

In [18]:
```
#solution:

def rotation():
    a = eval(input("Enter the array:-"))
    b = []
    for i in a[::-1]:
        b.append(i)
    print(f"Rotation of array {a} is {b}")
rotation()
```

```
Enter the array:-[12,16,11,13,30]
Rotation of array [12, 16, 11, 13, 30] is [30, 13, 11, 16, 12]
```

In [9]:
```
#solution:-

def rotation():
    array = eval(input("Enter the Array: "))
    print(f"The Reverse of Array {array} is {array[::-1]}")

rotation()
```

```
Enter the Array: [12,16,11,13,30]
The Reverse of Array [12, 16, 11, 13, 30] is [30, 13, 11, 16, 12]
```

Que:-4 Write a Python Program to Split the array and add the first part to the end ?

In [3]:
```
#solution:-

num_1 = eval(input("Enter the length of your array-:"))
array = []

for i in range(num_1):
    array.append(int(input()))
print("The Array ",array)

num_2 = int(input("Enter the number of elements to split the array-: "))
if num_2 > num_1:
    print("can not split as elements to split is larger then array length")
else:
    print("The split array is :",array[:num_2])
    split = array[num_2:num_1] + array[:num_2]
    print("The List after split and add :", split)
```

```
Enter the length of your array-:4
3
4
5
6
The Array  [3, 4, 5, 6]
Enter the number of elements to split the array-: 2
The split array is : [3, 4]
The List after split and add : [5, 6, 3, 4]
```

Que:-5 Write a Python Program to check if given array is Monotonic ?

In [9]:
```
#solution:-

def monotic():
    a = eval(input("Enter the array:-"))

    if all(a[i] <= a[i+1] for i in range(len(a)-1) or a[i] >= a[i+1] for i in range(len(a)-1)):
        print("The array is monotic")
    else:
        print("The array is not monotic")
monotic()

```

```
Enter the array:-[2,3,4,5]
The array is monotic
```

In [10]:
```
#solution:-

def monotic():
    a = eval(input("Enter the array:-"))

    if all(a[i] <= a[i+1] for i in range(len(a)-1) or a[i] >= a[i+1] for i in range(len(a)-1)):
        print("The array is monotic")
    else:
        print("The array is not monotic")
monotic()
```

```
Enter the array:-[3,4,6,5]
The array is not monotic
```