Programming Assignment 7

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

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

3. Write a Python Program for array rotation?

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

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

In [2]:
```python
#1 Write a Python Program to find sum of array

arr=[3,5,32,21,54,23]
sum=0
for i in arr:
    sum +=i
print('Sum of all the array elements is ',sum)
```

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In [1]:
```python
#2. Write a Python Program to find largest element in an array

arr=[3,5,32,21,54,23,89,32,23,2093,232,3445,2321]
big=0
for i in range(len(arr)):
    for j in arr:
        if j >big:
            big= j
print(f'larget of number in the array given is {big}')
```

larget of number in the array given is 3445

In [25]:
```python
#3. Write a Python Program for array rotation
arr=[3,5,32,21,54,23]
arr1=arr.copy()

def rotatearra(arr,n,d):
    temp=[]
    i=0
    while (i<d):
        temp.append(arr[i])
        i +=1
    i=0
    while (d<n):
        arr[i]=arr[d]
        i +=1
        d +=1

    arr[:] = arr[: i] + temp

    return arr
rotatearra(arr,len(arr1),2)
```

[32, 21, 54, 23] [3, 5]
4 6

Out[25]: [32, 21, 54, 23, 3, 5]

In [36]:
```python
#4.     Write a Python Program to Split the array and add the first part to the end?
arr=[3,5,32,21,54,23]
k=3
```

```python
def splitarr(a,k):
    if(isinstance(k,int)):
        temp1=a[0:k]
        temp2=a[k:]
    else:
        return 'invalid split value'
    return temp2+temp1
splitarr(arr,k)
```

Out[36]: [21, 54, 23, 3, 5, 32]

In [55]:
```python
#5. Write a Python Program to check if given array is Monotonic
arr=[3,5,32,21,54,23]
arr1=[1,2,3,4,5,6,21,34,54]
def check_monotonic(arr):
    monotonic=False
    for i in range(len(arr)):
        preindex = i-1
        if preindex >=0:
            monotonic=arr[i]>arr[i-1]

    if (monotonic):
        print('Given array is monotonic')
    else:
        print('Given array is not monotonic')

check_monotonic(arr)
check_monotonic(arr1)
```

```
Given array is not monotonic
Given array is monotonic
```