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

In [2]:
```python
# initialize array
arr = [1, 2, 3, 4, 5]

# initialize sum to zero
sum = 0

# iterate through array and add each element to the sum
for i in arr:
    sum += i

# print the sum of array
print("Sum of the array is:", sum)
```

```
Sum of the array is: 15
```

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

In [3]:
```python
def find_largest(arr):
    # initialize the maximum element to the first element of the array
    max_element = arr[0]

    # loop through the array to find the maximum element
    for i in range(1, len(arr)):
        if arr[i] > max_element:
            max_element = arr[i]

    return max_element

# create an array of integers
arr = [1, 3, 5, 2, 4, 6]

# find the largest element in the array using the find_largest() function
largest = find_largest(arr)

# print the largest element
print("The largest element in the array is:", largest)
```

```
The largest element in the array is: 6
```

3. Write a Python Program for array rotation?

In [4]:
```python
def rotate_array(arr, n):
    """
    This function rotates the given array by n positions to the right.
    """
    for i in range(n):
        # Pop the last element of the array
        last_elem = arr.pop()
        # Insert the popped element at the beginning of the array
        arr.insert(0, last_elem)
    return arr

# Example usage
my_arr = [1, 2, 3, 4, 5]
rotated_arr = rotate_array(my_arr, 2)
print(rotated_arr) # Output: [4, 5, 1, 2, 3]
```

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

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

In [5]:
```python
def split_and_add(arr, n):
    # Split the array into two parts using slicing
    part1 = arr[:n]
    part2 = arr[n:]

    # Add the first part to the end of the second part using concatenation
    new_arr = part2 + part1

    return new_arr

# Example usage:
arr = [1, 2, 3, 4, 5]
n = 2
new_arr = split_and_add(arr, n)
print(new_arr) # Output: [3, 4, 5, 1, 2]
```

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

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

In [7]:
```python
def is_monotonic(arr):
    # Check if the array is non-increasing or non-decreasing
    return all(arr[i] <= arr[i+1] for i in range(len(arr)-1)) or \
           all(arr[i] >= arr[i+1] for i in range(len(arr)-1))

# Example usage
```

In [ ]:
```python
```