Assignment 7 Solutions

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

In [4]:
```python
def sumOfArray():
    in_arr = eval(input("Enter the Array: "))
    print(f'The sum of {in_arr} is {sum(in_arr)}')

sumOfArray()
```

```
Enter the Array: [1,2,3,4,5]
The sum of [1, 2, 3, 4, 5] is 15
```

2. Write a Python Program to find Largest element in an Array ?

In [6]:
```python
def largestElement():
    in_arr = eval(input("Enter the Array: "))
    print(f"The Largest Element in {in_arr} is {sorted(in_arr, reverse=True)[0]}")

largestElement()
```

```
Enter the Array: [2,3,4,5,6]
The Largest Element in [2, 3, 4, 5, 6] is 6
```

3. Write a Python Program for array rotation ?

In [7]:
```python
def reverseOfArray():
    in_arr = eval(input("Enter the Array: "))
    print(f"The Reverse of Array {in_arr} is {in_arr[::-2]}")

reverseOfArray()
```

```
Enter the Array: [13,17,12,14,40]
The Reverse of Array [13, 17, 12, 14, 40] is [40, 12, 13]
```

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

In [11]:
```python
def sumOfSplits():
    in_arr = eval(input("Enter the Array: "))
    print(f"The Sum of First and Last Elements of Array {in_arr} is {in_arr[0]+in_arr[-1]}")

sumOfSplits()
```

```
Enter the Array: [12,14,17,7,19]
The Sum of First and Last Elements of Array [12, 14, 17, 7, 19] is 31
```

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

In [12]:
```python
def checkMonotonic():
    in_arr = eval(input("Enter the Array: "))
    if(all(in_arr[i]<=in_arr[i+1] for i in range(len(in_arr)-1)) or all(in_arr[i]>=in_arr[i+1] for i in range(len
        print(f'Array {in_arr} is Monotonic')
    else:
        print(f'Array {in_arr} is Not Monotonic')

checkMonotonic()
checkMonotonic()
```

```
Enter the Array: [4,5,6,7,8]
Array [4, 5, 6, 7, 8] is Monotonic
Enter the Array: 5,2,5,6,7,2
Array (5, 2, 5, 6, 7, 2) is Not Monotonic
```