

Assignment - 7

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

```
In [6]: array = [1, 2, 3, 4, 5];
        sum = 0;

        for i in range(0, len(array)):
            sum = sum + array[i]

        print("Sum of all the elements of an array: " + str(sum))
```

Sum of all the elements of an array: 15

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

```
In [9]: array = [1, 2, 3, 4, 5]

        print("The largest number is: ", max(array))
```

The largest number is: 5

3. Write a Python Program for array rotation?

```
In [21]: array= [1, 2, 3, 4, 5];
        n = 3;

        print("Original array: ");
        for i in range(0, len(array)):
            print(array[i]),

        #LEFT
        for i in range(0, n):
            first = array[0];
            for j in range(0, len(array)-1):
                array[j] = array[j+1];
                array[len(array)-1] = first;
        print();

        print("Array after left rotation: ");
        for i in range(0, len(array)):
            print(array[i]),
```

Original array:
1
2
3
4
5

Array after left rotation:
2
3
4
1
1

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

```
In [24]: def SplitArrat(arr, n, k):
        for i in range(0, k):
            x = arr[0]
            for j in range(0, n-1):
                arr[j] = arr[j + 1]

            arr[n-1] = x

        arr = [1,2,3,4,5,6,7,8,9,10]
        n = len(arr)
        position = 2

        SplitArray(arr, n, position)

        for i in range(0, n):
            print(arr[i], end = ' ')
```

3 4 5 6 7 8 9 10 1 2

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

```
In [26]: def isMonotonic(a):
        return (all(a[i] <= a[i + 1] for i in range(len(a) - 1)) or
                all(a[i] >= a[i + 1] for i in range(len(a) - 1)))
        # main
        a = [1,2,3,4,7,8,9,10]
        print(isMonotonic(a))
```

True

```
In [ ]:
```