Basic Programming assignment 7

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

```
In [1]: def sumOfArray():
            in_arr = eval(input("Enter the Array: "))
            print(f'The sum of {in_arr} is {sum(in_arr)}')

        sumOfArray()
```

```
Enter the Array: 1,2,3,4,5,8,9
The sum of (1, 2, 3, 4, 5, 8, 9) is 32
```

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

```
In [2]: 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: 1,2,3,4,5,8,9
The Largest Element in (1, 2, 3, 4, 5, 8, 9) is 9
```

3. Write a Python Program for array rotation ?

```
In [3]: def reverseOfArray():
            in_arr = eval(input("Enter the Array: "))
            print(f"The Reverse of Array {in_arr} is {in_arr[::-1]}")

        reverseOfArray()
```

```
Enter the Array: 12,14,15,1,5,16,1,9
The Reverse of Array (12, 14, 15, 1, 5, 16, 1, 9) is (9, 1, 16, 5, 1, 15, 14, 12)
```

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

```
In [4]: 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: 10,14,14,15,16,18,12,20
The Sum of First and Last Elements of Array (10, 14, 14, 15, 16, 18, 12, 20) is 30
```

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

```
In [5]: 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(l
                print(f'Array {in_arr} is Monotonic')
            else:
                print(f'Array {in_arr} is Not Monotonic')

        checkMonotonic()
        checkMonotonic()
```

```
Enter the Array: 1,2,3,4,5,6,7,8,9
Array (1, 2, 3, 4, 5, 6, 7, 8, 9) is Monotonic
Enter the Array: 4,3,5,4,8,9,3,5,
Array (4, 3, 5, 4, 8, 9, 3, 5) is Not Monotonic
```

Loading [MathJax]/jax/output/CommonHTML/fonts/TeX/fontdata.js