1 Programming Basic Assignment 7

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

```
In [2]:   1  list1 = [12, 3, 4, 15];s=0
          2  for i,a in enumerate(list1):
          3      s+=a
          4  print(s)
```

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

```
In [3]:   1  def largest(arr, n):
          2      max = arr[0]
          3      for i in range(1, n):
          4          if arr[i] > max:
          5              max = arr[i]
          6      return max
          7
          8  arr = [10, 324, 45, 90, 9808]
          9  n = len(arr)
         10  Ans = largest(arr, n)
         11  print("Largest in given array ", Ans)
```

Largest in given array 9808

```
          1  ### 3. Write a Python Program for array rotation?
```

```
In [4]:   1  def rotateArray(arr, n, d):
          2      temp = []
          3      i = 0
          4      while (i < d):
          5          temp.append(arr[i])
          6          i = i + 1
          7      i = 0
          8      while (d < n):
          9          arr[i] = arr[d]
         10          i = i + 1
         11          d = d + 1
         12      arr[:] = arr[: i] + temp
         13      return arr
         14  arr = [1, 2, 3, 4, 5, 6, 7]
         15  print("Array after left rotation is: ", end=' ')
         16  print(rotateArray(arr, len(arr), 2))
```

Array after left rotation is: [3, 4, 5, 6, 7, 1, 2]

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

```
In [6]:   1  def splitArr(a, n, k):
          2      b = a[:k]
          3      return (a[k::]+b[::])
          4  arr = [12, 10, 5, 6, 52, 36]
          5  n = len(arr)
          6  position = 2
          7  arr = splitArr(arr, n, position)
          8  for i in range(0, n):
          9      print(arr[i], end=' ')
```

5 6 52 36 12 10

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

```
In [7]:   1  def isMonotonic(A):
          2
          3      return (all(A[i] <= A[i + 1] for i in range(len(A) - 1)) or
          4              all(A[i] >= A[i + 1] for i in range(len(A) - 1)))
          5
          6  A = [6, 5, 4, 4]
          7
          8  # Print required result
          9  print(isMonotonic(A))
```

True