

# Assignment 10

## 1. Write a Python program to find sum of elements in list?

```
In [7]: def add_sum(a):
        print(sum(a))

In [8]: add_sum([45,10])
55

In [9]: add_sum([45,10,10,10,5])
80
```

## 2. Write a Python program to Multiply all numbers in the list?

```
In [18]: import numpy as np

        def multiply(a):
            print(np.prod(a))

In [19]: multiply([45,10,23])
10350
```

## 3. Write a Python program to find smallest number in a list?

```
In [20]: def small(a):
        print(min(a))

In [21]: a = [10,20,56,48,2,566]

In [22]: small(a)
2
```

## 4. Write a Python program to find largest number in a list?

```
In [23]: def big(a):
        print(max(a))

In [24]: big(a)
566
```

## 5. Write a Python program to find second largest number in a list?

```
In [27]: def second(a):
        a.sort()
        print("Second largest element is:", a[-2])

In [28]: second(a)
Second largest element is: 56
```

## 6. Write a Python program to find N largest elements from a list?

```
In [31]: n = 5
        def nnum(a):
            a.sort()
            print(a[-n:])

        a = [45,56,26,89,4562,1005,899]
        nnum(a)

[56, 89, 899, 1005, 4562]
```

## 7. Write a Python program to print even numbers in a list?

```
In [34]: def even(a):
        for i in a:
            if i%2 == 0:
                print(i)

even(a)

26
56
4562
```

## 8. Write a Python program to print odd numbers in a List?

```
In [37]: def odd(a):
        for i in a:
            if i%2 != 0:
                print(i)

odd(a)

45
89
899
1005
```

## 9. Write a Python program to Remove empty List from List?

```
In [38]: lst = [[1, 2, 3], [1, 2], [], [], [], [1, 2, 3, 4], [], []]
        print(list(filter(lambda x: x, lst)))

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

## 10. Write a Python program to Cloning or Copying a list?

```
In [41]: def Cloning(li1):
        li_copy =[]
        for item in li1: li_copy.append(item)
        return li_copy

li1 = [4, 8, 2, 10, 15, 18,589]
li2 = Cloning(li1)
print("Original List:", li1)
print("After Cloning:", li2)

Original List: [4, 8, 2, 10, 15, 18, 589]
After Cloning: [4, 8, 2, 10, 15, 18, 589]
```

## 11. Write a Python program to Count occurrences of an element in a list?

```
In [42]: def countX(lst, x):
        count = 0
        for ele in lst:
            if (ele == x):
                count = count + 1
        return count

# Driver Code
lst = [8, 6, 8, 10, 8, 20, 10, 8, 8]
x = 8
print('{} has occurred {} times'.format(x, countX(lst, x)))

8 has occurred 5 times

In [ ]:
```