

Bigdata Assignment 6.1

Given a list of numbers - List[Int] (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

- find the sum of all numbers
- find the total elements in the list
- calculate the average of the numbers in the list
- find the sum of all the even numbers in the list
- find the total number of elements in the list divisible by both 5 and 3

Solution -

- First entered into spark shell by command – **spark-shell**
- Loaded the numbers into the list

val list = sc.parallelize(List(1,2,3,4,5,6,7,8,9,10))

```
scala> val list = sc.parallelize(List(1,2,3,4,5,6,7,8,9,10))
list: org.apache.spark.rdd.RDD[Int] = ParallelCollectionRDD[0] at parallelize at <console>:24
```

1. Sum of all no in the list using sum function

val sum = list.sum

Ans – 55.0

```
scala> val sum = list.sum
sum: Double = 55.0
```

2. Total no of elements in the list using count function

val list_count = list.count()

Ans - 10

```
scala> val list_count = list.count()
list_count: Long = 10
```

3. Average of the numbers in the list using sum and count function

val avg_list = list.sum/list.count()

Ans - 5.5

```
scala> val avg_list = list.sum/list.count()
avg_list: Double = 5.5
```

4. Sum of all the even numbers in the list using filter and sum
val sum_even = list.filter(x=> x%2 == 0).sum

Ans – 30.0

```
scala> val sum_even = list.filter(x=> x%2 == 0).sum  
sum_even: Double = 30.0
```

5. Total number of elements in the list divisible by both 5 and 3 using filter and count function

val div_5_3 = list.filter(x=> x%3==0 && x%5==0).count()

Ans - 0

```
scala> val div_5_3 = list.filter(x=> x%3==0 && x%5==0).count()  
div_5_3: Long = 0
```