



Session 16

Assignment 1 Questions

ACADGILD

Problem Statement

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

➤ find the sum of all numbers

```
scala> val x = List[Int] (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
x: List[Int] = List(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

scala> var sum = 0
sum: Int = 0

scala> x.foreach(sum += _)

scala> println(sum)
55

scala>
```

- find the total elements in the list

```
scala> val x = List[Int] (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
x: List[Int] = List(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

scala> x.length
res5: Int = 10

scala>
```

- calculate the average of the numbers in the list

```
scala> val x = List[Int] (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
x: List[Int] = List(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

scala> x.length
res5: Int = 10

scala> println(sum)
55

scala> x.length
res7: Int = 10

scala> sum/x.length
res8: Int = 5
```

- find the sum of all the even numbers in the list

```
scala> val x = List[Int] (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
x: List[Int] = List(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

scala> val evens = x.filter(a => a % 2 == 0)
evens: List[Int] = List(2, 4, 6, 8, 10)

scala> var sum = 0
sum: Int = 0

scala> evens.foreach(sum+=_)

scala> println(sum)
30

scala>
```

- find the total number of elements in the list divisible by both 5 and 3

```
scala> val x = List[Int] (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
x: List[Int] = List(1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

scala> x.filter(x=>x%3==0 || x%5==0)
res0: List[Int] = List(3, 5, 6, 9, 10)

scala> x.filter(x=>x%3==0 && x%5==0)
res1: List[Int] = List()

scala>
```