Problem Statement

Task 1

Given a list of strings - List[String] (“alpha”, “gamma”, “omega”, “zeta”, “beta”)

- Find count of all strings with length 4.

Scala REPL

scala> var tuple:List[(String)] = List ("alpha", "gamma", "omega", "zeta", "beta")

tuple: List[String] = List(alpha, gamma, omega, zeta, beta)

```
scala> var tuple:List[(String)] = List("alpha", "gamma", "omega", "zeta", "beta")
tuple: List[String] = List(alpha, gamma, omega, zeta, beta)
```

scala> tuple.count(s=> s.length == 4)

res0: Int = 2

Output

```
scala> tuple.count(s=> s.length == 4)
res0: Int = 2
```

- Convert the list of string to a list of integers, where each string is mapped to its corresponding length.

Scala REPL

scala> tuple.map(s=> s.length)

res1: List[Int] = List(5, 5, 5, 4, 4)

Output

```
scala> tuple.map(s=> s.length)
res1: List[Int] = List(5, 5, 5, 4, 4)
```

- Find count of all strings which contain alphabet ‘m’.

Scala REPL

scala> tuple.count(s=> s.contains("m"))

res2: Int = 2

Output

```
scala> tuple.count(s=> s.contains("m"))
res2: Int = 2
```

- Find the count of all strings which start with the alphabet ‘a’.

Scala REPL

scala> tuple.count(s=> s.charAt(0) == 'a')

res3: Int = 1

Output

```
scala> tuple.count(s=> s.charAt(0) == 'a')
res3: Int = 1
```

Task 2

Create a list of tuples, where the 1st element of the tuple is an int and the second element is a string.

Example - ((1, ‘alpha’), (2, ‘beta’), (3, ‘gamma’), (4, ‘zeta’), (5, ‘omega’))

- For the above list, print the numbers where the corresponding string length is 4.

SCALA REPL

Scala>var tuple : List[(Int,String)] =
List((1,"alpha"),(2,"beta"),(3,"gamma"),(4,"zeta"),(5,"omega"))

Scala>tuple: List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zeta), (5,omega))

```
scala> println("********####################Assignment 12.3********####################*********")
********####################Assignment 12.3********#########*********
```

```
scala> var tuple : List[(Int,String)] = List((1,"alpha"),(2,"beta"),(3,"gamma"),(4,"zeta"),(5,"omega"))
tuple: List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zeta), (5,omega))
```

Now print the numbers where the corresponding string length is 4,

Scala> tuple.filter(_._2.length == 4).foreach (x=> println(x._1))

Reqired Output

```
scala> tuple.filter(_._2.length == 4).foreach (x=> println(x._1))
2
4
```

- find the average of all numbers, where the corresponding string contains alphabet ‘m’
or alphabet ‘z’.

SCALA REPL

scala> var tuple1 = tuple.filter(a=>(a._2.count(_=='m')!=0||a._2.count(_=='z')!=0))

tuple1: List[(Int, String)] = List((3,gamma), (4,zeta), (5,omega))

scala> tuple1.map(_._1).sum/tuple1.size

res5: Int = 4

```
scala> var tuple1 = tuple.filter(a=>(a._2.count(_=='m')!=0||a._2.count(_=='z')!=0))
tuple1: List[(Int, String)] = List((3,gamma), (4,zeta), (5,omega))
```

Required Output

```
scala> tuple1.map(_._1).sum/tuple1.size
res5: Int = 4
```