PROBLEM STATEMENT –

TASK 1 –

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

1. Find count of all strings with length 4.

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

3. Find count of all strings which contain alphabet 'm'.

4. Find the count of all strings which start with the alphabet 'a'.

SOLUTION –

List of strings -

var 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)
```

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

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

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

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

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

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

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

```
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'))

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

2. Find the average of all numbers, where the corresponding string contains alphabet 'm' or   alphabet 'z'.

SOLUTION –

List of tuples –

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

```
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))
```

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

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

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

```
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))
```

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

```
scala> tuple1.map(_._1).sum/tuple1.size
res6: Int = 4
```