Assignment - 14.1

Task1: Given a list of strings - List[String] (“alpha”, “gamma”, “omega”, “zeta”, “beta”)

1.1- Find count of all strings with length 4.

Command used:

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")

val h = str.count(x => x.length==4)
```

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")
                                                //> str  : List[String] = List(alpha, gamma, omega, zeta, beta)
val h = str.count(x => x.length==4)             //> h  : Int = 2
println(h)                                      //> 2
```

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

Command used:

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")

val f = str.map(x=>x.length)
```

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")
                                                //> str  : List[String] = List(alpha, gamma, omega, zeta, beta)
val f = str.map(x=>x.length)                    //> f  : List[Int] = List(5, 5, 5, 4, 4)
println(f)                                      //> List(5, 5, 5, 4, 4)
```

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

Command used:

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")

val j = (str.filter(_.contains("m"))).size
```

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")
                                                //> str  : List[String] = List(alpha, gamma, omega, zeta, beta)
val j = (str.filter(_.contains("m"))).size      //> j  : Int = 2
println(j)                                      //> 2
```

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

Command used:

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")

val i = str.count(x=> x.startsWith("a"))
```

```
val str = List("alpha", "gamma", "omega", "zeta", "beta")
                                                //> str  : List[String] = List(alpha, gamma, omega, zeta, beta)
val i = str.count(x=> x.startsWith("a"))        //> i  : Int = 1
println(i)                                      //> 1
```

Task2: 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’))

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

Command used:

```
val strnew = List((1, "alpha"), (2, "beta"), (3, "gamma"), (4, "zeta"), (5, "omega"))

val s1 = strnew.collect{case (n, strng) if strng.length == 4 => n}
```

```
val strnew = List((1, "alpha"), (2, "beta"), (3, "gamma"), (4, "zeta"), (5, "omega"))
                                                //> strnew  : List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zet
                                                //| a), (5,omega))
val s1 = strnew.collect{case (n, strng) if strng.length == 4 => n}
                                                //> s1  : List[Int] = List(2, 4)
println(s1)                                     //> List(2, 4)
```

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

Command used:

```
val strnew = List((1, "alpha"), (2, "beta"), (3, "gamma"), (4, "zeta"), (5, "omega"))

val s2 = (strnew.collect{case (n,str1) if (str1.contains("m") || str1.contains("z")) => n})

val s3 = s2.sum / s2.size
```

```
val strnew = List((1, "alpha"), (2, "beta"), (3, "gamma"), (4, "zeta"), (5, "omega"))
                                                //> strnew  : List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zet
                                                //| a), (5,omega))

val s2 = (strnew.collect{case (n,str1) if (str1.contains("m") || str1.contains("z")) => n})
                                                //> s2  : List[Int] = List(3, 4, 5)
println(s2)                                     //> List(3, 4, 5)
val s3 = s2.sum / s2.size                       //> s3  : Int = 4
println(s3)                                     //> 4
```