Session 14: Assignment 1

**Task 1**

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

- Find count of all strings with length 4.

```
$ ssh acadgild@192.168.156.112
acadgild@192.168.156.112's password:
Last login: Wed Nov 21 01:31:47 2018 from 192.168.156.201
[acadgild@localhost ~]$ scala
Welcome to Scala 2.12.4 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_151).
Type in expressions for evaluation. Or try :help.

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

scala> print(myString.count(s => s.length == 4))
2
scala>
```

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

corresponding length.

```
scala> print(myString)
List(alpha, gamma, omega, zeta, beta)
scala> myString.map(s => s + " " + s.length)
res21: List[String] = List(alpha 5, gamma 5, omega 5, zeta 4, beta 4)

scala>
```

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

```
scala> print(myString)
List(alpha, gamma, omega, zeta, beta)
scala> myString.count(s => s.contains("m"))
res17: Int = 2

scala>
```

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

```
scala> print(myString)
List(alpha, gamma, omega, zeta, beta)
scala> myString.count(s => s.startsWith("a"))
res19: Int = 1

scala>
```

**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'))

```
scala> var myTuple : List[(Int, String)] = List()
myTuple: List[(Int, String)] = List()

scala> myTuple = myTuple:+((1,"alpha"))
myTuple: List[(Int, String)] = List((1,alpha))

scala> myTuple = myTuple:+((2,"beta"))
myTuple: List[(Int, String)] = List((1,alpha), (2,beta))

scala> myTuple = myTuple:+((3,"gamma"))
myTuple: List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma))

scala> myTuple = myTuple:+((4,"zeta"))
myTuple: List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zeta))

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

scala>
```

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

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

scala> myTuple.foreach{
     | case (id, name) => {
     | if (name.length == 4) {
     |   println(id)
     | }
     | }
     | }
2
4

scala>
```

- find the average of all numbers, where the corresponding string contains alphabet 'm'

or alphabet 'z'.

```scala
scala> print(myTuple)
List((1,alpha), (2,beta), (3,gamma), (4,zeta), (5,omega))
scala> print(myTmpList)
List()
scala> myTuple.foreach{
     | case(id, name) => {
     | if (name.contains("m") || name.contains("z)) {
<console>:3: error: unclosed string literal
       if (name.contains("m") || name.contains("z)) {
                                                  ^

scala> myTuple.foreach{
     | case(id, name) => {
     | if (name.contains("m") || name.contains("z")) {
     | myTmpList = myTmpList:+id
     | }
     | }
     | }

scala> print(myTmpList)
List(3, 4, 5)
scala> var avg = myTmpList.sum/myTmpList.length
avg: Int = 4

scala> print(avg)
4
scala>
```