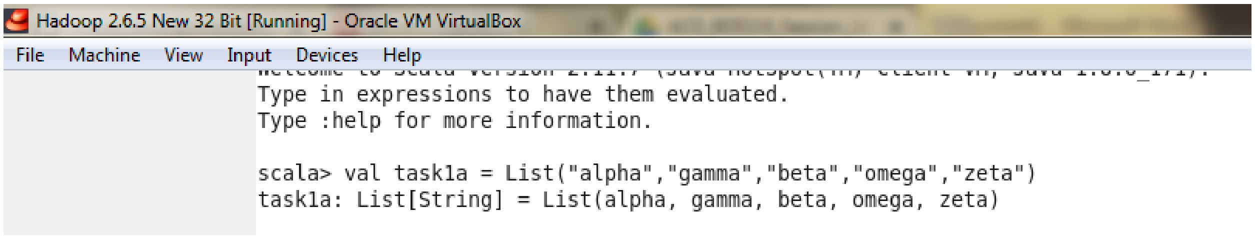
ASSIGNMENT SCALA 1

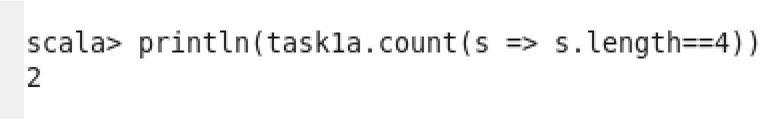
TASK 1 : Given a list of strings - List[String] (“alpha”, “gamma”, “omega”, “zeta”, “beta”)



```
Welcome to Scala version 2.11.7 (Java HotSpot(TM) Client VM, Java 1.8.0_171).
Type in expressions to have them evaluated.
Type :help for more information.

scala> val task1a = List("alpha","gamma","beta","omega","zeta")
task1a: List[String] = List(alpha, gamma, beta, omega, zeta)
```

a) Find count of all strings with length 4.



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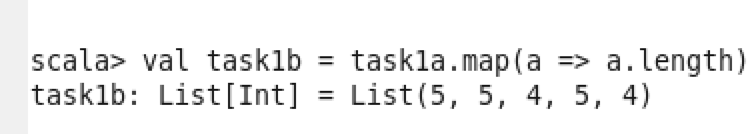
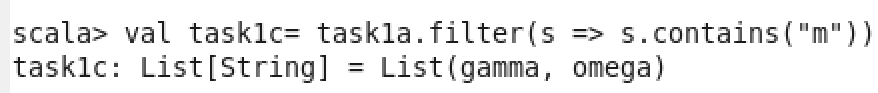
scala> println(task1a.count(s => s.length==4))
2
```

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

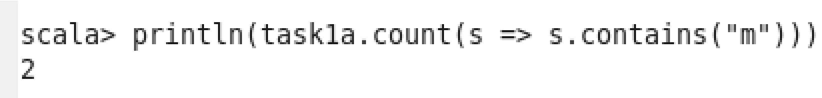


```
scala> val task1b = task1a.map(a => a.length)
task1b: List[Int] = List(5, 5, 4, 5, 4)
```

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

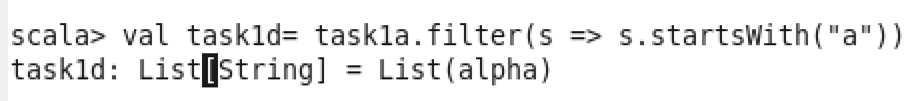


```
scala> val task1c= task1a.filter(s => s.contains("m"))
task1c: List[String] = List(gamma, omega)
```

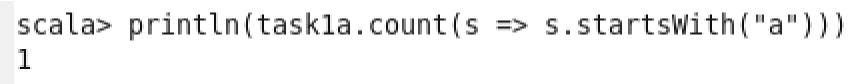


```
scala> println(task1a.count(s => s.contains("m")))
2
```

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



```
scala> val task1d= task1a.filter(s => s.startsWith("a"))
task1d: List[String] = List(alpha)
```

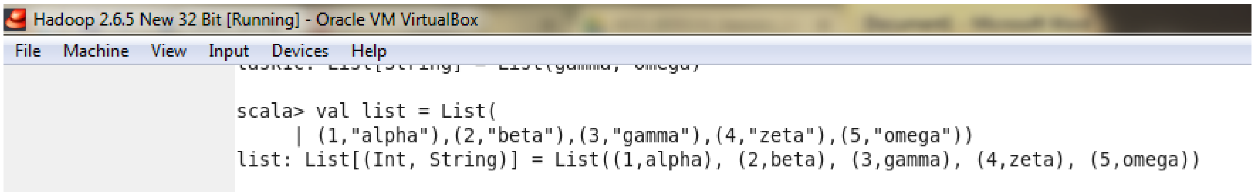


```
scala> println(task1a.count(s => s.startsWith("a")))
1
```

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’))

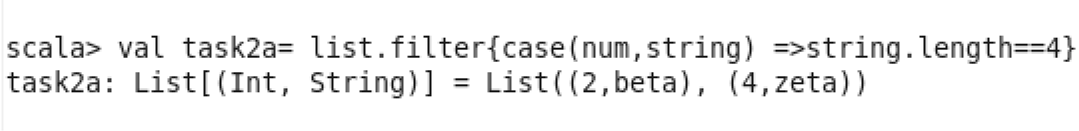


```
task1c: List[String] = List(gamma, omega)

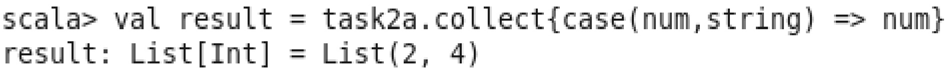
scala> val list = List(
     | (1,"alpha"),(2,"beta"),(3,"gamma"),(4,"zeta"),(5,"omega"))
list: List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zeta), (5,omega))
```

ASSIGNMENT SCALA 1

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

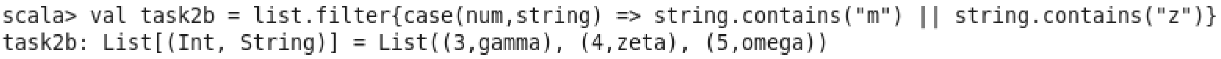


```
scala> val task2a= list.filter{case(num,string) =>string.length==4}
task2a: List[(Int, String)] = List((2,beta), (4,zeta))
```

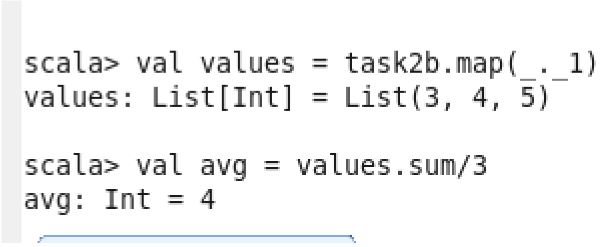


```
scala> val result = task2a.collect{case(num,string) => num}
result: List[Int] = List(2, 4)
```

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



```
scala> val task2b = list.filter{case(num,string) => string.contains("m") || string.contains("z")}
task2b: List[(Int, String)] = List((3,gamma), (4,zeta), (5,omega))
```



```
scala> val values = task2b.map(_._1)
values: List[Int] = List(3, 4, 5)

scala> val avg = values.sum/3
avg: Int = 4
```