Assignment 14:

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

Note: Code containing all the below task is uploaded separately.

1. Find count of all strings with length 4.

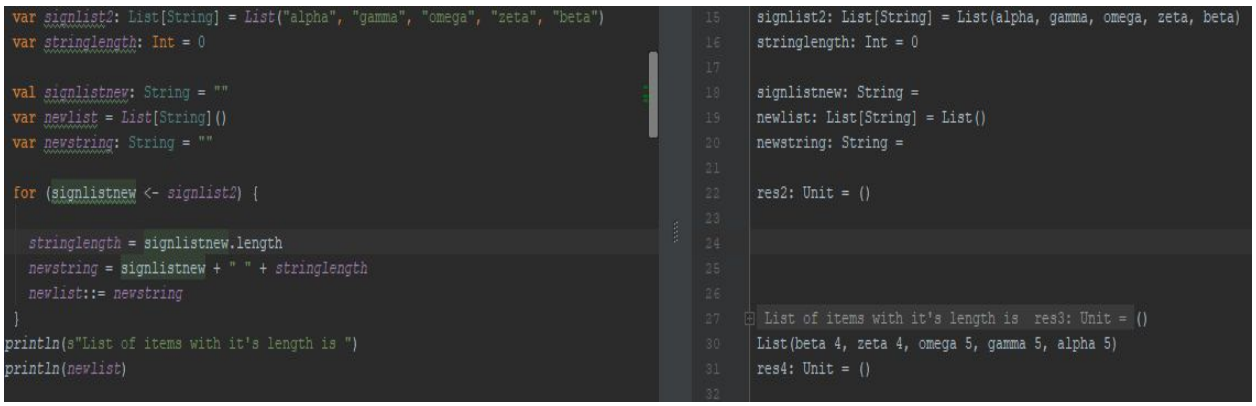
Output:

```
object Assignment12 {

   val signlist: List[String] = List("alpha", "gamma", "omega", "zeta", "beta")
   var count = 0
   for (signlist1 <- signlist if signlist1.length == 4) {
      count+=1
      }
  println(count)

}
```

```
signlist: List[String] = List(alpha, gamma, omega, zeta, beta)
count: Int = 0
res0: Unit = ()

2 res1: Unit = ()
```

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

Output:

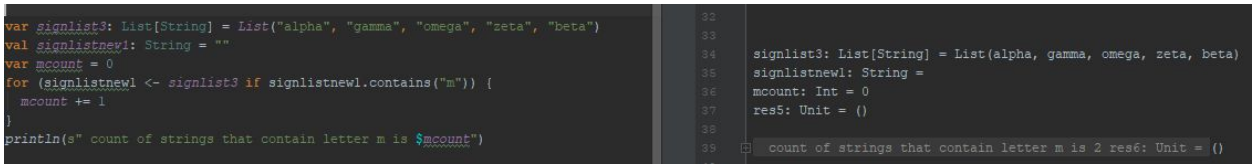


```
var signlist2: List[String] = List("alpha", "gamma", "omega", "zeta", "beta")
var stringlength: Int = 0

val signlistnew: String = ""
var newlist = List[String]()
var newstring: String = ""

for (signlistnew <- signlist2) {

  stringlength = signlistnew.length
  newstring = signlistnew + " " + stringlength
  newlist::= newstring
}
println(s"List of items with it's length is ")
println(newlist)
```

```
signlist2: List[String] = List(alpha, gamma, omega, zeta, beta)
stringlength: Int = 0

signlistnew: String =
newlist: List[String] = List()
newstring: String =

res2: Unit = ()

List of items with it's length is  res3: Unit = ()
List(beta 4, zeta 4, omega 5, gamma 5, alpha 5)
res4: Unit = ()
```

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

Output:

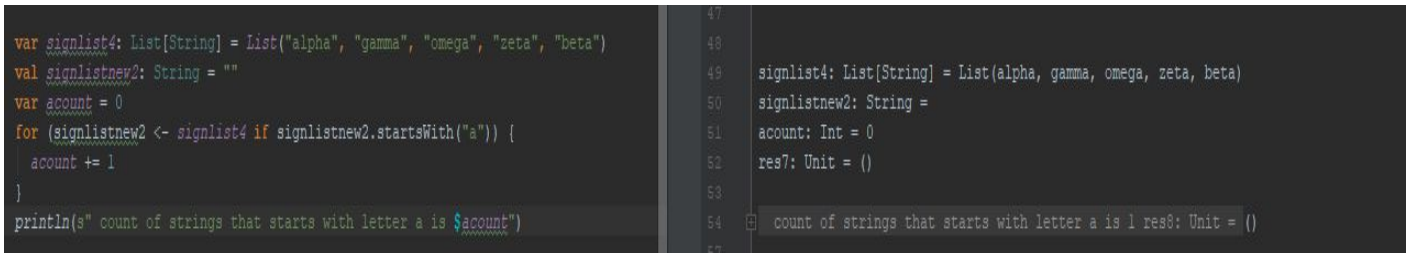


```
var signlist3: List[String] = List("alpha", "gamma", "omega", "zeta", "beta")
val signlistnew1: String = ""
var mcount = 0
for (signlistnew1 <- signlist3 if signlistnew1.contains("m")) {
  mcount += 1
}
println(s" count of strings that contain letter m is $mcount")
```

```
signlist3: List[String] = List(alpha, gamma, omega, zeta, beta)
signlistnew1: String =
mcount: Int = 0
res5: Unit = ()

count of strings that contain letter m is 2 res6: Unit = ()
```

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

Output:



```
var signlist4: List[String] = List("alpha", "gamma", "omega", "zeta", "beta")
val signlistnew2: String = ""
var acount = 0
for (signlistnew2 <- signlist4 if signlistnew2.startsWith("a")) {
  acount += 1
}
println(s" count of strings that starts with letter a is $acount")
```

```
signlist4: List[String] = List(alpha, gamma, omega, zeta, beta)
signlistnew2: String =
acount: Int = 0
res7: Unit = ()

count of strings that starts with letter a is 1 res8: Unit = ()
```

Task 2:

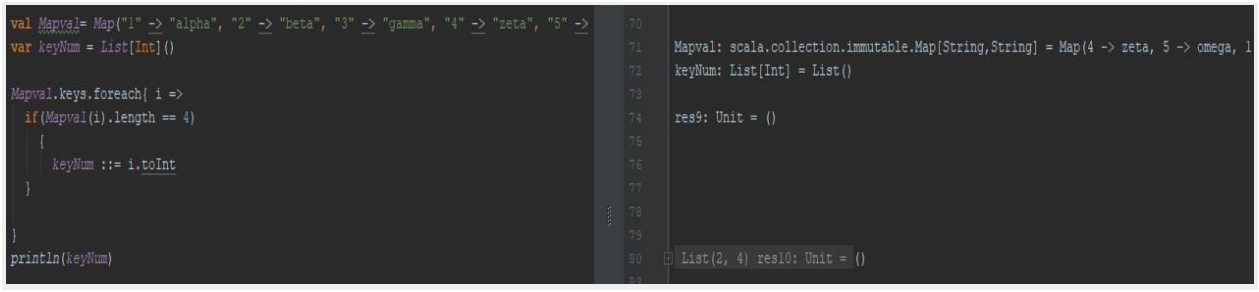
----

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

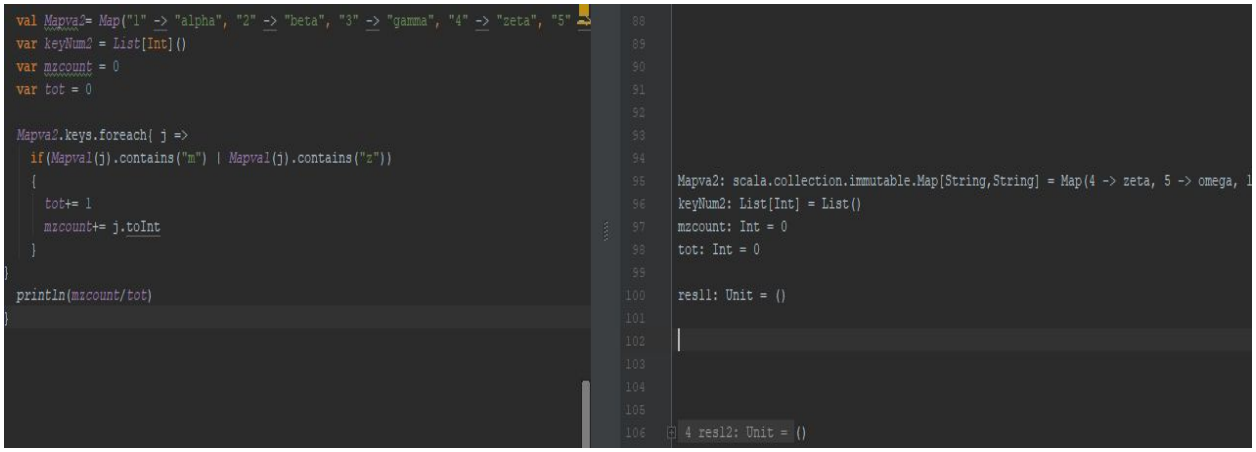
Output:



```
val Mapval= Map("1" -> "alpha", "2" -> "beta", "3" -> "gamma", "4" -> "zeta", "5" ->
var keyNum = List[Int]()

Mapval.keys.foreach{ i =>
  if(Mapval(i).length == 4)
    {
      keyNum ::= i.toInt
    }

}
println(keyNum)
```

```
Mapval: scala.collection.immutable.Map[String,String] = Map(4 -> zeta, 5 -> omega, 1
keyNum: List[Int] = List()

res9: Unit = ()

List(2, 4) res10: Unit = ()
```

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



```
val Mapva2= Map("1" -> "alpha", "2" -> "beta", "3" -> "gamma", "4" -> "zeta", "5"
var keyNum2 = List[Int]()
var mzcount = 0
var tot = 0

Mapva2.keys.foreach{ j =>
  if(Mapval(j).contains("m") | Mapval(j).contains("z"))
  {
    tot+= 1
    mzcount+= j.toInt
  }
}
 println(mzcount/tot)
}
```

```
Mapva2: scala.collection.immutable.Map[String,String] = Map(4 -> zeta, 5 -> omega, 1
keyNum2: List[Int] = List()
mzcount: Int = 0
tot: Int = 0

res11: Unit = ()

4 res12: Unit = ()
```