Scala programming Assignment 12.2

Given a list of strings - List[String] ("alpha", "gamma", "omega", "zeta", "beta"). We need to find the solution for below statements.

For this assignment, we are creating a list l in Scala as below::

val l = List("alpha", "gamma", "omega", "zeta", "beta");

1) Find count of all strings with length 4

The code used is as below, here s.length gives the length of each item in the list.so we are counting the number of items with length 4:
l.count(s => s.length == 4))
Output: 2

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

- To convert the list of string to a list of integers of same length, we are going to use map funtion provided by scala.
- The map method takes a predicate function and applies it to every element in the collection. It creates a new collection with the result of the predicate function applied to each and every element of the collection.
- So the output will be a new list of intergers, where each item of the new list corresponds to the length of each item in the list 'l'.

The code used is,.
l.map(s => s.length())
Output: List(5, 5, 5, 4, 4)

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

To find the count of all strings that contain alphabet 'm', we are going to use .contains method of java String class, the code to find is written as below.
l.count(s => s.contains('m'))
Output: 2

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

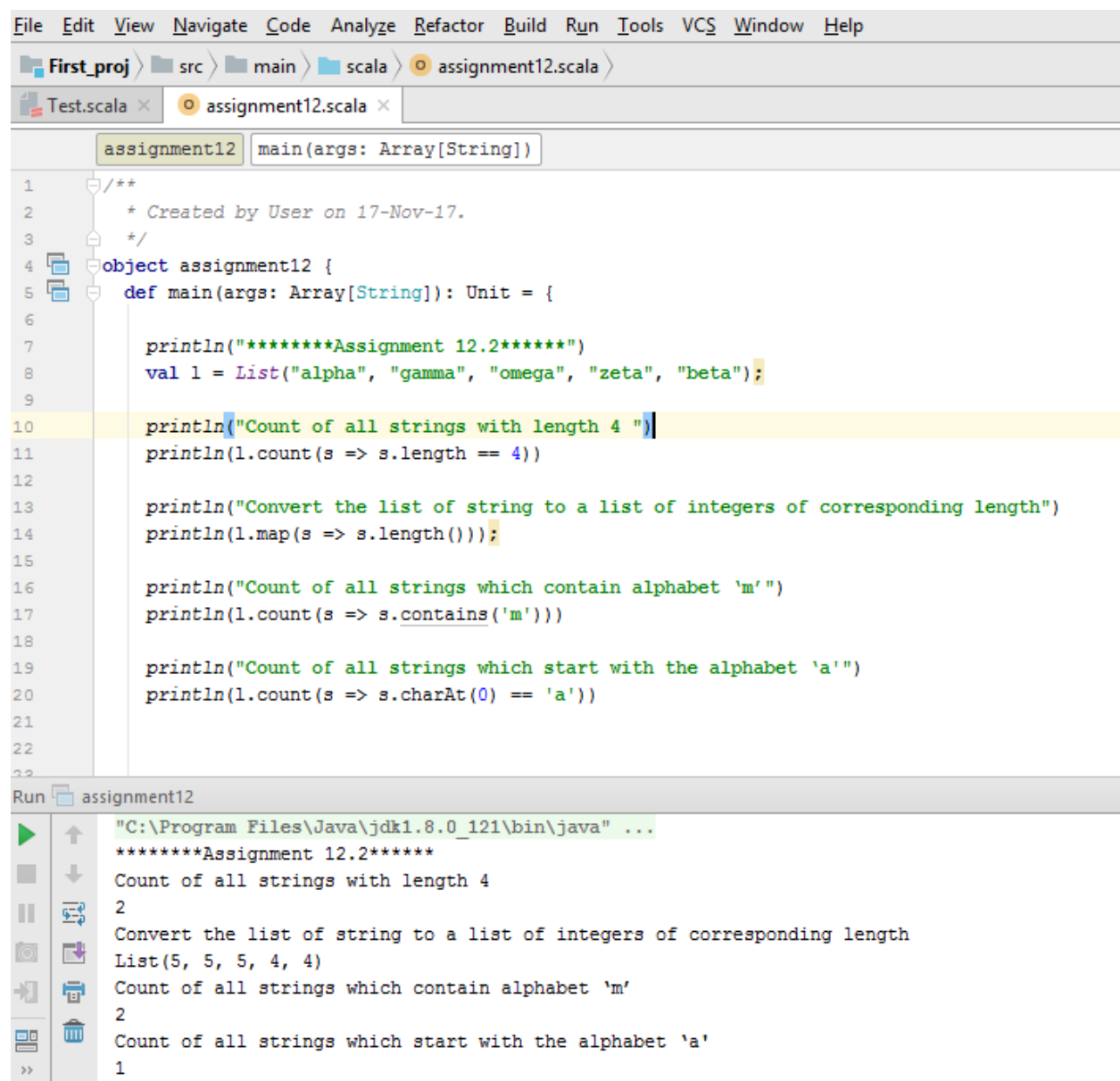To find the count of all strings that starts with alphabet 'a', we are going to use .charAt method of java String class. We are passing the index number to the charAt method, the code to find is written as below.

l.count(s => s.charAt(0) == 'a')
Output: 1

We have run the Scala codes in intellij IDE, the outputs are as below.

Screenshot of Intellij Idea where the scala codes are run:

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

First_proj ⟩ ▮ src ⟩ ▮ main ⟩ ▮ scala ⟩ ○ assignment12.scala ⟩

Test.scala ×   ○ assignment12.scala ×

assignment12 main(args: Array[String])

```scala
1    /**
2      * Created by User on 17-Nov-17.
3      */
4    object assignment12 {
5      def main(args: Array[String]): Unit = {
6
7        println("********Assignment 12.2******")
8        val l = List("alpha", "gamma", "omega", "zeta", "beta");
9
10       println("Count of all strings with length 4 ")
11       println(l.count(s => s.length == 4))
12
13       println("Convert the list of string to a list of integers of corresponding length")
14       println(l.map(s => s.length()));
15
16       println("Count of all strings which contain alphabet 'm'")
17       println(l.count(s => s.contains('m')))
18
19       println("Count of all strings which start with the alphabet 'a'")
20       println(l.count(s => s.charAt(0) == 'a'))
21
22
```

Run ▭ assignment12

```
"C:\Program Files\Java\jdk1.8.0_121\bin\java" ...
********Assignment 12.2******
Count of all strings with length 4
2
Convert the list of string to a list of integers of corresponding length
List(5, 5, 5, 4, 4)
Count of all strings which contain alphabet 'm'
2
Count of all strings which start with the alphabet 'a'
1
```