

## Assignment 14

### TASK 1:

```
package org.aplhaList
```

```
object ScalaListDemo {
```

```
    def main (args: Array[String]) {
```

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

```
        val result1 = myList.count { item => item.length() == 4 }  
        println("Number of items in the list of length equals 4: " + result1)
```

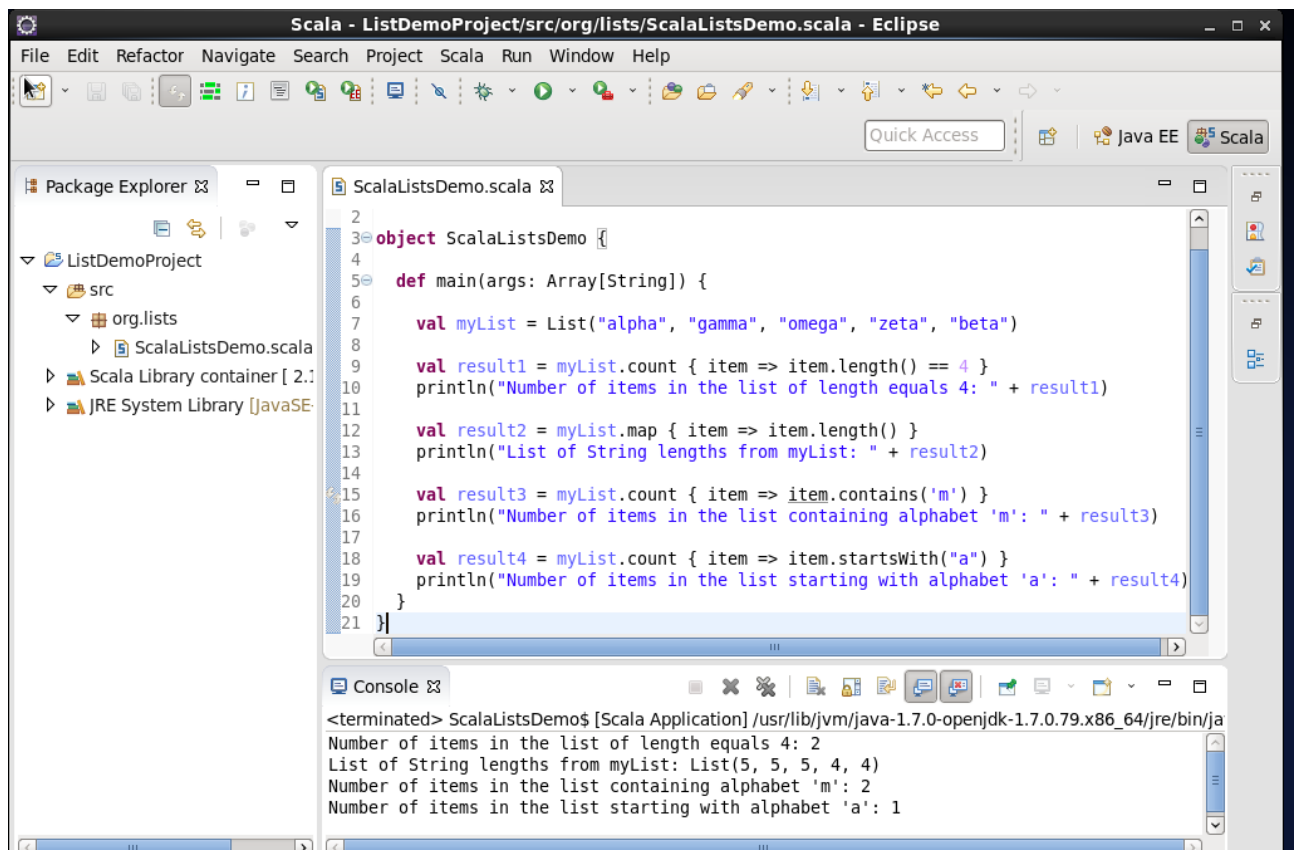
```
        val result2 = myList.map { item => item.length() }  
        println("String length list form myList: " + result2)
```

```
        val result3 = myList.count { item => item.contains("m") }  
        println("Number of items in the list containing the letter 'm': " + result3)
```

```
        val result4 = myList.count { item => item.startsWith("a") }  
        println("Number of items in the list that starts with the letter 'a': " + result4)
```

```
    }
```

```
}
```



The screenshot shows the Eclipse IDE with a Scala project named 'ListDemoProject'. The Package Explorer on the left shows the project structure: 'src' contains 'org.lists', which contains 'ScalaListsDemo.scala'. The main editor displays the Scala code from the previous blocks. The Console at the bottom shows the output of the program:

```
<terminated> ScalaListsDemo$ [Scala Application] /usr/lib/jvm/java-1.7.0-openjdk-1.7.0.79.x86_64/jre/bin/java  
Number of items in the list of length equals 4: 2  
List of String lengths from myList: List(5, 5, 5, 4, 4)  
Number of items in the list containing alphabet 'm': 2  
Number of items in the list starting with alphabet 'a': 1
```

## **TASK 2:**

```
package org.aplhaList
```

```
object ScalaTuplesDemo {
```

```
    def main (args: Array[String]) {
```

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

```
        val result = myTuple.filter(tuple => tuple._2.length() == 4)
```

```
        println("Numbers for which the corresponding string length is 4:")
```

```
        result.foreach(tuple => println(tuple._1))
```

```
    }
```

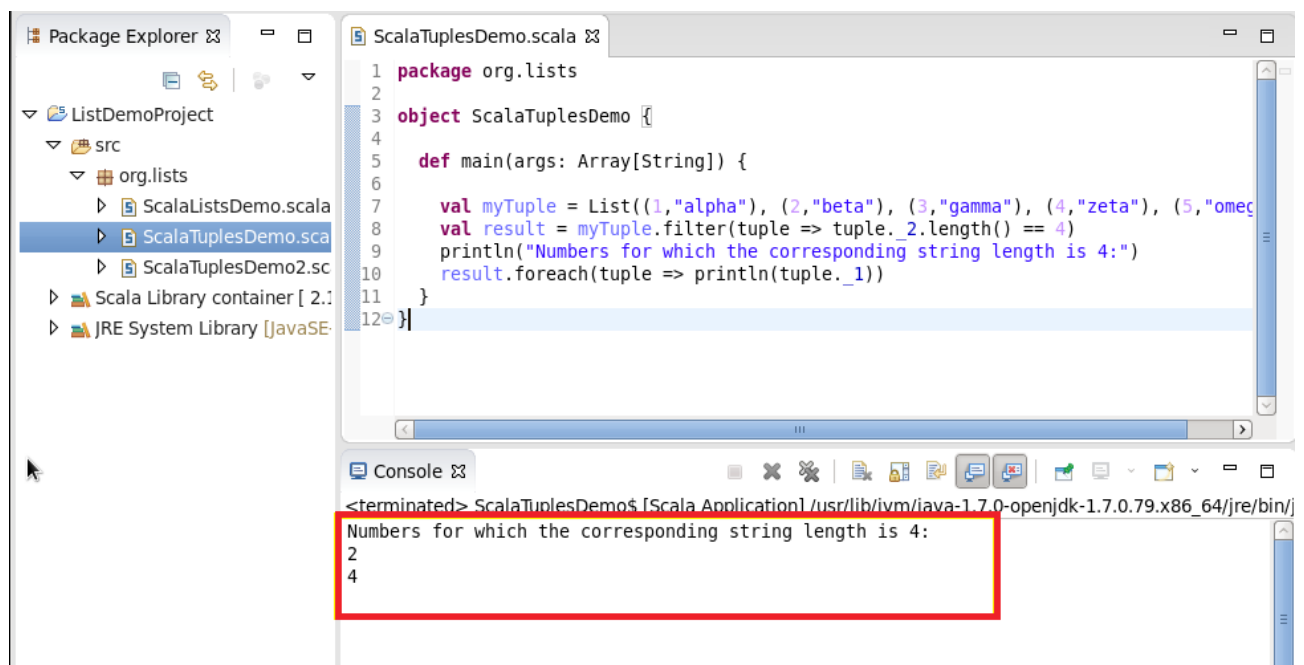
```
}
```

Output:

Numbers for which the corresponding string length is 4:

2

4



```
package org.aplhaList
```

```
object ScalaTuplesDemo {
```

```
    def main (args: Array[String]) {
```

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

```
        val result = myTuple.filter(tuple => tuple._2.contains('m') || tuple._2.contains('z'))
```

```
        val keys = result.map(tuple => tuple._1)
```

```
        println("Average of all numbers where the corresponding string contains 'm' or  
'z': "+ keys.sum / keys.length)
```

```
    }
```

```
}
```

Output:

Average of all numbers where the corresponding string contains 'm' or 'z': 4

