SCALA BASICS 1

Task 1:

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

>val ll = List ("alpha", "gamma", "omega", "zeta", "beta")

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

a list of strings is created.

a)   Find count of all strings with length 4.

>ll.count(s=>s.length==4)

   this count operation returns the count of strings with lenght 4 in the list ll.

```
scala> ll.count(s=>s.length==4)
res16: Int = 2
```


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

>ll.map(s=>(s.length))

   map here reurns type List,using map operation going to each string of List ll and assigning it with the lenght of each string.

```
scala> ll.map(s=>(s.length))
res18: List[Int] = List(5, 5, 5, 4, 4)
```


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

>ll.count(s=>s.contains('m'))

```
scala> ll.count(s=>s.contains('m'))
res21: Int = 2
```

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

>ll.count(s=>s.startsWith("m")

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

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

>tup.foreach(s=>

    if(s._2.length==4)

   println(s._1)

)

Here we are first applying foreach onlost of tuples tup,and then opearting on each tuple in the List.

```
scala> tup.foreach(s=>
 | if(s._2.length==4)
 | println(s._1)
 | )
2
4
```

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

or alphabet 'z'.

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

ll: List[(Int, String)] = List((1,alpha), (2,beta), (3,gamma), (4,zeta), (5,omeg
a))

scala> val filteredList=ll.filter(x=>x._2.contains("m"))
filteredList: List[(Int, String)] = List((3,gamma), (5,omega))

scala> val avg=filteredList.map(x=>x._1).sum/filteredList.length
avg: Int = 4

scala>
```