Task 1

```
/*
Follow the below link document steps to download and import AcadgildSpark
VM in the Oracle VirtualBox. ( 64-bit VM 32-bit VM ). NOTE: If your system
is compatible with 64 bit VM, then please download the Acadgild Spark 64
Bit file,else download the Acadgild Spark 32 Bit file from the link.
*/
```

Task 2

```
/*
This program finds the following for Given a list of strings - List[String]
(“alpha”, “gamma”, “omega”, “zeta”, “beta”)
- find count of all strings with length 4
- convert the list of string to a list of integers, where each string is
mapped to its
corresponding length
- find count of all strings which contain alphabet ‘m’
- find the count of all strings which start with the alphabet ‘a’
*/

var lst =  List[String] ("alpha", "gamma", "omega", "zeta", "beta")
//Given list data

//Prints the count of all strings with length 4
var count_strings_length_4 = lst.count(s => s.length == 4 )
println("The count of all strings with length 4 is: "+
count_strings_length_4+"\n")

//Prints the list of integers where each string is mapped to its
corresponding length
var list_of_length_string = lst.map(s => s.length)
println("The list of integers where each string is mapped to its
corresponding length is: "+list_of_length_string+"\n")

//Prints the  count of all strings which contain alphabet ‘m’
var count_strings_contains_m = lst.count(s => s.contains("m"))
println("The count of all strings which contain alphabet ‘m’ is: " +
count_strings_contains_m+"\n")

//Prints the count of all strings which start with the alphabet ‘a’
var count_strings_starts_with_a = lst.count(s => s.startsWith("a"))
println("The count of all strings which start with the alphabet ‘a’ is:
"+count_strings_starts_with_a+"\n")
```

```
The count of all strings with length 4 is: 2

The list of integers where each string is mapped to its corresponding leng
th is: List(5, 5, 5, 4, 4)

The count of all strings which contain alphabet ‘m’ is: 2

The count of all strings which start with the alphabet ‘a’ is: 1

lst: List[String] = List(alpha, gamma, omega, zeta, beta)
count_strings_length_4: Int = 2
list_of_length_string: List[Int] = List(5, 5, 5, 4, 4)
count_strings_contains_m: Int = 2
count_strings_starts_with_a: Int = 1
```

Task 3

```
/*
This program creats a Scala application to find the GCD of two numbers.
*/

class GCD{

  //Defining function gcd which takes two int arguments and returns the gcd
def calc_gcd(a: Int,b: Int): Int = {
       if(b ==0) a else calc_gcd(b, a%b)
    }
}


defined class GCD

The gcd of 10 and is 3 is: 1

gcd: GCD = GCD@743d053c
a: Int = 10
b: Int = 3
```