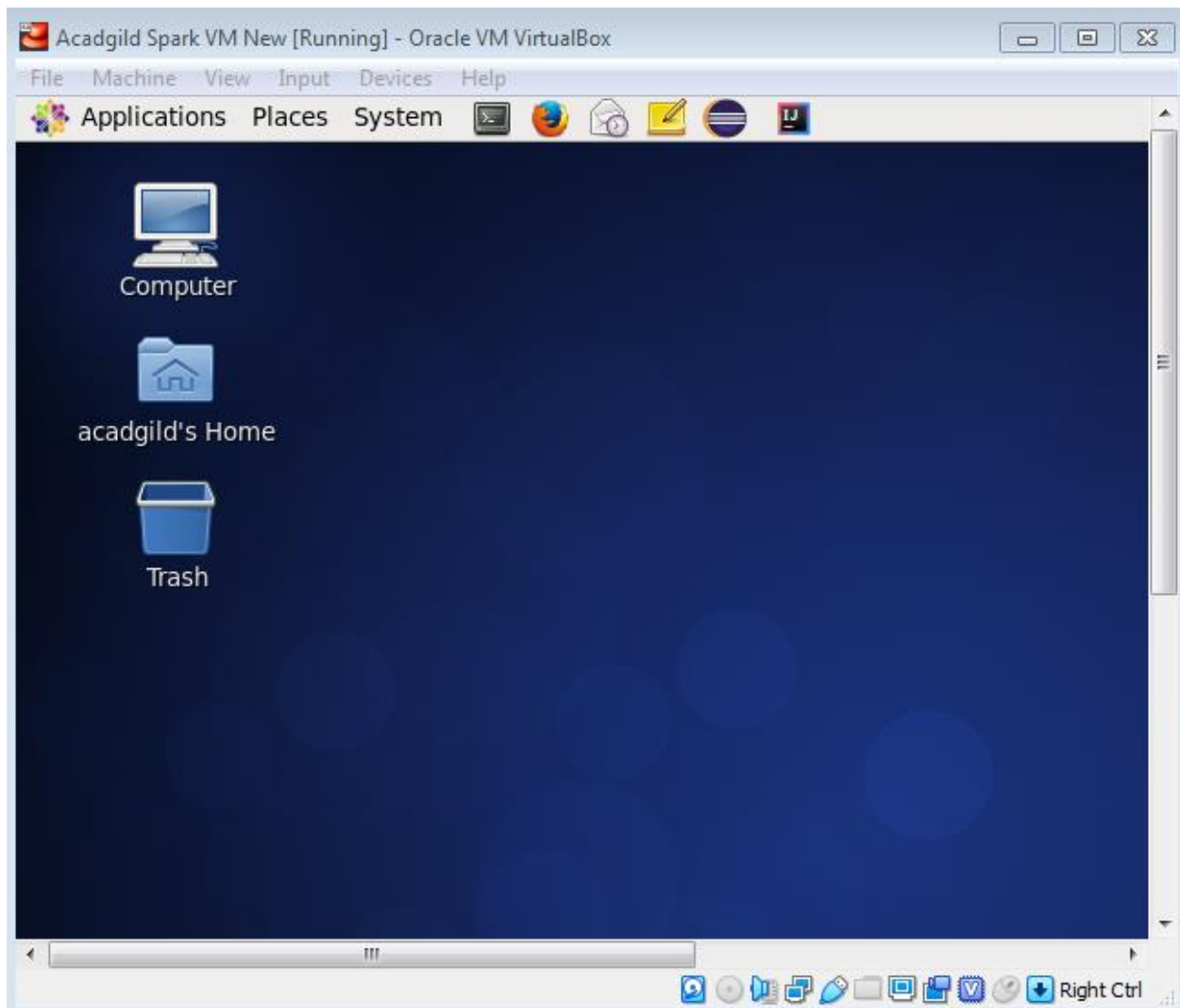


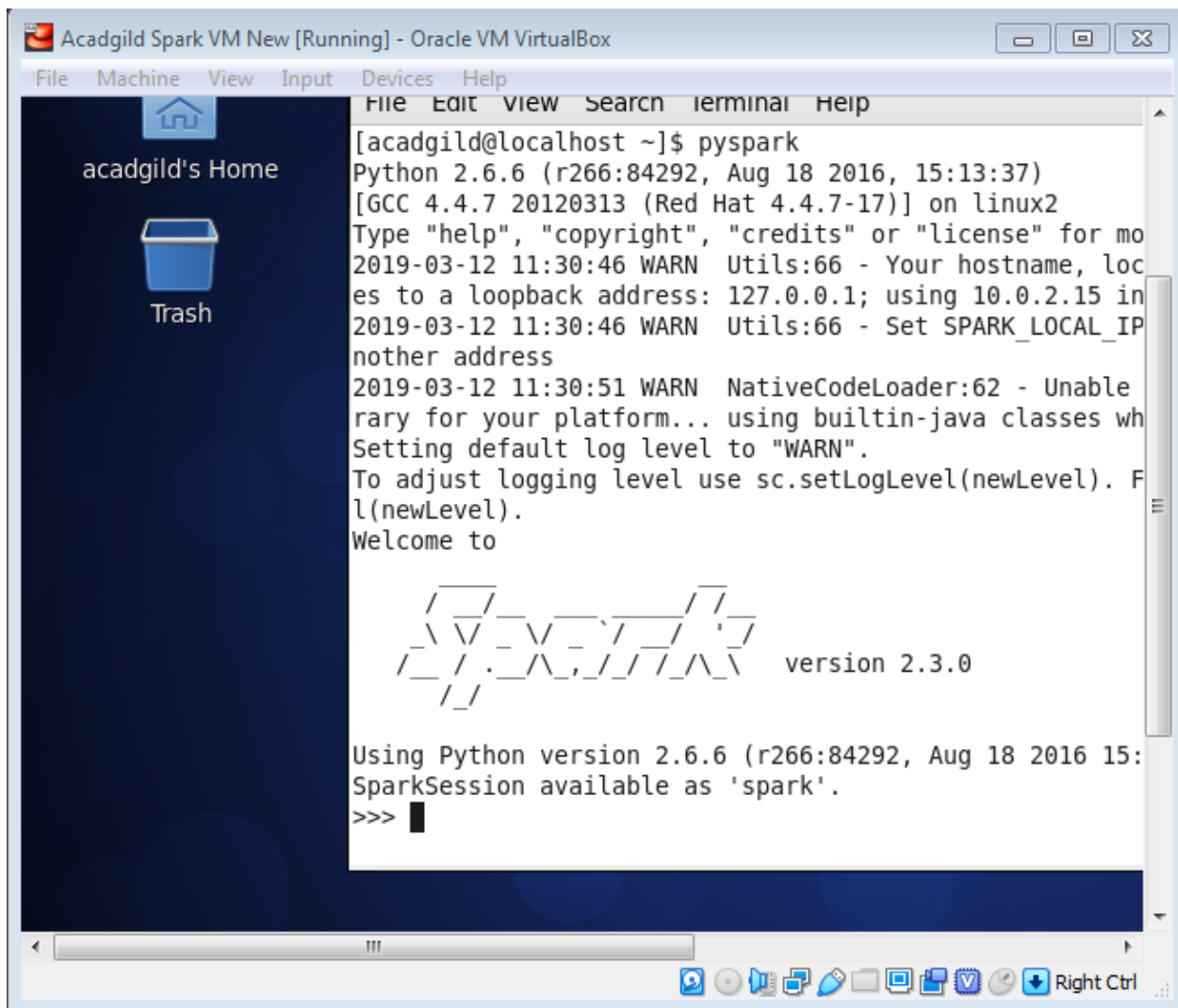
Task 1

Follow the below link document steps to download and import AcadgildSpark VM in the Oracle Virtual Box.

ACADGILD_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 below link.





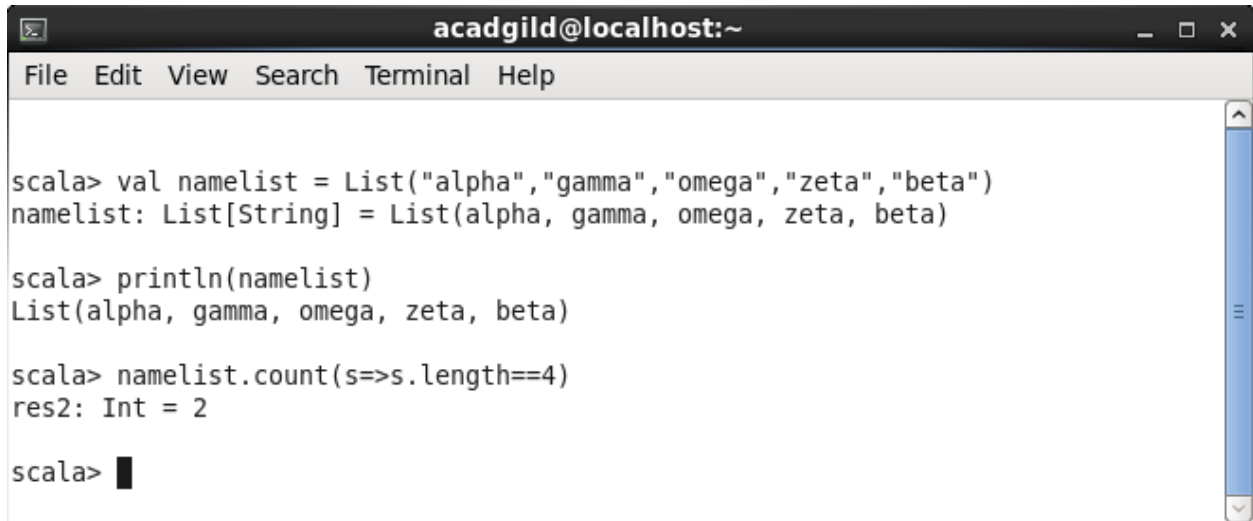
Task 2

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'

a) - find count of all strings with length 4

```
val namelist = List("alpha","gamma","omega","zeta","beta")  
  
println(namelist)  
  
namelist.count(s=>s.length==4)
```

A screenshot of a terminal window titled 'acadgild@localhost:~'. The window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal content shows the following Scala code and its output:

```
scala> val namelist = List("alpha","gamma","omega","zeta","beta")  
namelist: List[String] = List(alpha, gamma, omega, zeta, beta)  
  
scala> println(namelist)  
List(alpha, gamma, omega, zeta, beta)  
  
scala> namelist.count(s=>s.length==4)  
res2: Int = 2  
  
scala> █
```

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

```
val nameint = namelist.map(s=>s.length)  
  
println(nameint)
```

```
scala> val nameint = namelist.map(s=>s.length)  
nameint: List[Int] = List(5, 5, 5, 4, 4)  
  
scala> println(nameint)  
List(5, 5, 5, 4, 4)
```

c) - find count of all strings which contain alphabet 'm'

```
namelist.count(s=>s.contains('m'))
```

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

scala> namelist.count(s=>s.contains('m'))
res1: Int = 2

scala> █
```

d) - find the count of all strings which start with the alphabet 'a'

```
namelist.count(s=>s.startsWith("a"))
```

```
scala> namelist.count(s=>s.startsWith("a"))
res4: Int = 1

scala> █
```

Task 3

Create a Scala application to find the GCD of two numbers.

```
scala> def gcd(a: Int,b: Int): Int = {
    |         if(b ==0) a else gcd(b, a%b)
    | }
gcd: (a: Int, b: Int)Int

scala> gcd(20,30)
res5: Int = 10

scala> █
```

```
def gcd(a:int, b:int = {
    if(b==0) a else gcd(b, a%b)
})
```

$\gcd(20,30)$