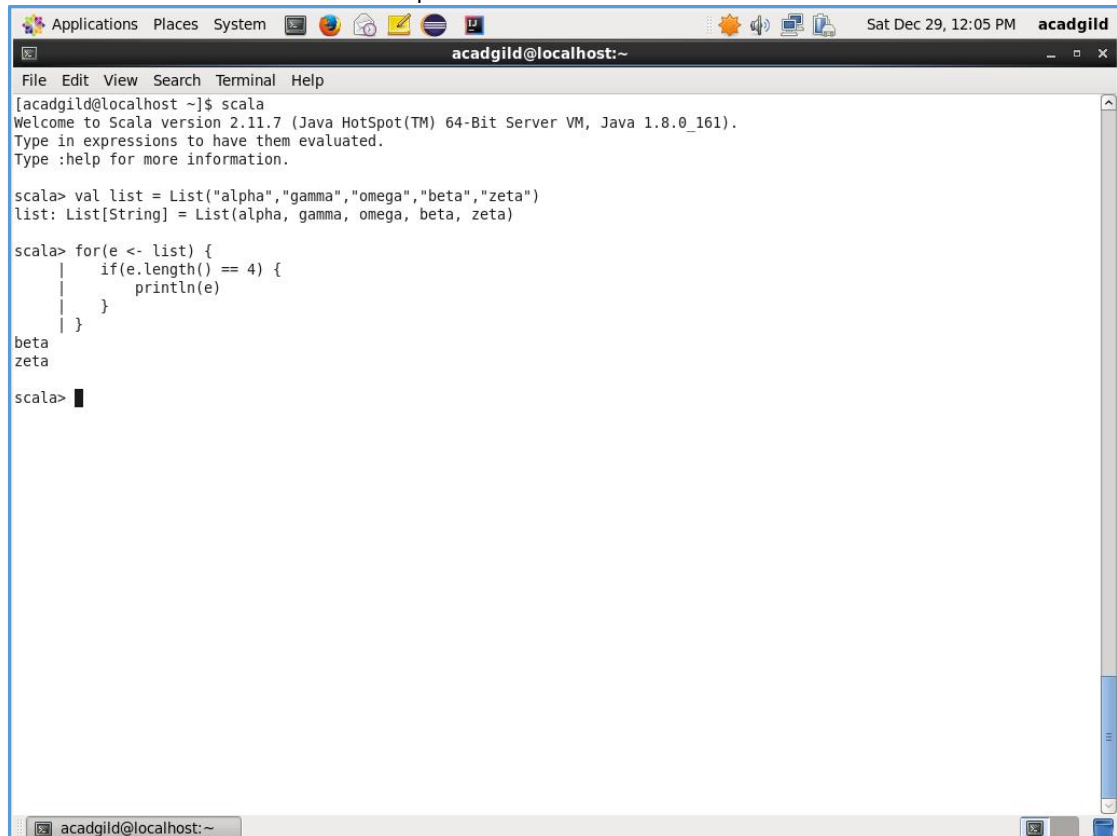


# Assignment Scala 1

## Task 1

Screenshot of the virtual machine output.

A screenshot of a terminal window titled 'acadgild@localhost:~'. The window shows the execution of the Scala REPL. The user enters 'scala', which prompts the Scala version and Java HotSpot information. Then, the user enters a Scala script: 'val list = List("alpha", "gamma", "omega", "beta", "zeta")', 'list: List[String] = List(alpha, gamma, omega, beta, zeta)', 'for(e <- list) { if(e.length() == 4) { println(e) } }', which outputs 'beta' and 'zeta'. The prompt returns to 'scala>'.

```
acadgild@localhost:~$ scala
Welcome to Scala version 2.11.7 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_161).
Type in expressions to have them evaluated.
Type :help for more information.

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

scala> for(e <- list) {
|   if(e.length() == 4) {
|     println(e)
|   }
| }
beta
zeta

scala>
```

## Task 2

Screenshot of output and commands

- Count of strings with length 4

Commands

```
val data = List("alpha", "gamma", "omega", "zeta", "beta")
// count of strings with length 4
val result = data.filter(x => x.length == 4).size
println("Strings with length 4: "+result)
```

### Output

```
"C:\Program Files\Java\jdk1.8.0_131\bin\java.exe" ...  
Strings with length 4: 2
```

- List of strings to list of integers

### Commands

```
// Convert list of strings to list of integers  
println("List of strings to length of strings")  
println(for(elem<-data) yield elem.length)
```

### Output

```
List of strings to length of strings  
List(5, 5, 5, 4, 4)
```

- Count of strings with letter m

### Commands

```
// Count of all strings with letter m  
println("Count of strings with letter m")  
val result2 = data.filter(x => x contains 'm').size  
println(result2)
```

### Output

```
Count of strings with letter m  
2
```

- Count of strings with letter a

### Commands

```
// Count of all strings with letter a  
println("Count of strings with letter a")  
val result3 = data.filter(x => x.startsWith("a")).size  
println(result3)
```

### Output

```
Count of strings with letter a  
1
```

## Task 3

GCD of 2 numbers:

**Commands (Create a function)**

```
def gcd(x: Int,y: Int): Int = {  
    if(y == 0) x else gcd(y, x%y)  
}
```

**Output (Display the output)**

```
GCD of 2 numbers  
5
```