

Himanshu Goyal

Assignment 2

Scala

Q 1) Using scala REPL, add two integers, two float values, two strings and show the screenshot as submission

```
Command Prompt - sbt console
Ensuring
Enum
EnumConstantNotPresentException
Enumeration
Equals
Error
Exception
ExceptionInitializerError
FallbackArrayBuilding
Float
Float2Float
Map
MatchError
Math
Module
ModuleLayer
Mutable
NegativeArraySizeException
Nil
NoClassDefFoundError
NoManifest
NoSuchElementException
NoSuchFieldError
RichException
Right
Runnable
Runtime
RuntimeException
RuntimePermission
SafeVarargs
ScalaReflectionException
SecurityException
SecurityManager
Seq
SeqCharSequence
UniquenessCache
Unit
UnknownError
UnsatisfiedLinkError
UnsupportedClassVersionError
UnsupportedOperationException
Vector
VerifyError
VirtualMachineError
Void
_root_
a
language
LanguageFeature
Locally
Long2Long
LongArrayOps
LongWrapper
management
manifest
math
module
native
netscape
wrapLongArray
wrapRefArray
wrapShortArray
wrapString
wrapUnitArray
x
xal
y

scala>
scala> val x = 10
x: Int = 10
scala> val y = 30
y: Int = 30
scala> x+y
res4: Int = 40
scala> val x = 10.5.toFloat
x: Float = 10.5
scala> val y = 30.6.toFloat
y: Float = 30.6
scala> x+y
res5: Float = 41.1
scala> val str1 = "Hello"
str1: String = Hello
scala> var str2 = "World!!!!"
str2: String = World!!!!
scala> str1+str2
res6: String = HelloWorld!!!!
scala> var str2 = " World!!!!"
str2: String = " World!!!!"
scala> str1+str2
res7: String = Hello World!!!!
scala>
```

Q 2) Determine whether a given integer number is prime.

```
Run: Assignment2
C:\Program Files\Java\jdk-10\bin\java.exe -javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2018.1.1\lib\idea_rt.jar=61902:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2018.1.1\bin -Dfile.encoding=UTF-8
Enter Number to Check Prime
true
```

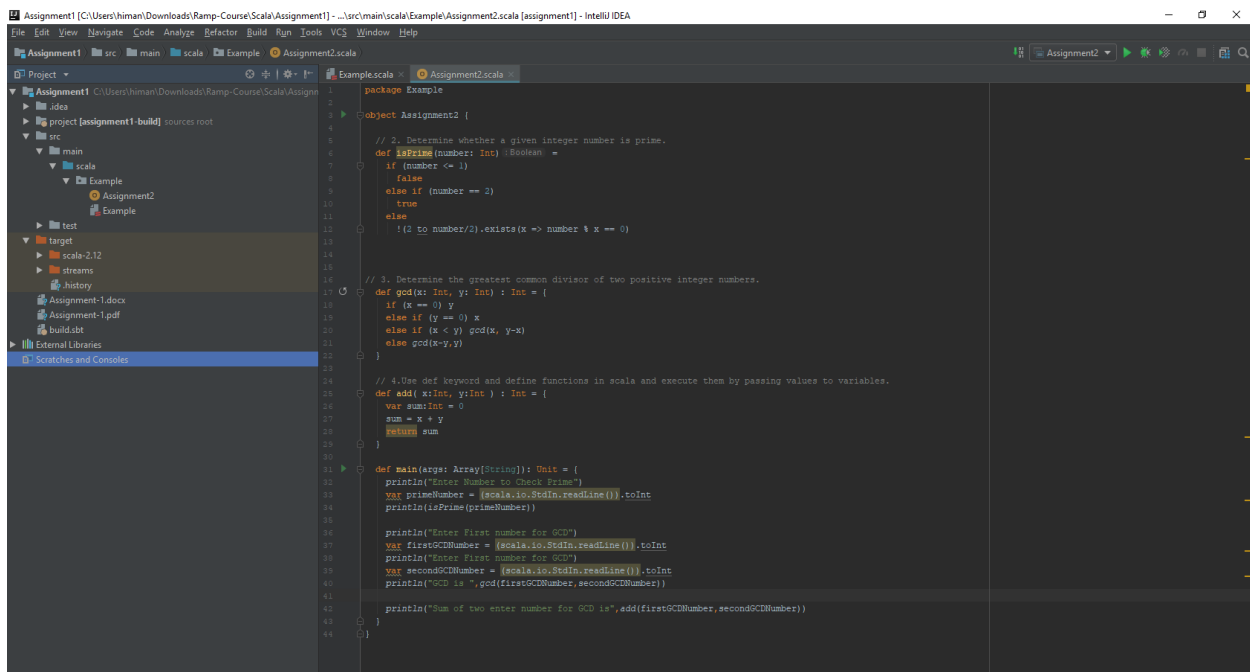
Q 3) Determine the greatest common divisor of two positive integer numbers.

```
true
Enter First number for GCD
100
Enter First number for GCD
200
(GCD is ,100)
```

Q 4) Use def keyword and define functions in scala and execute them by passing values to variables.

```
(GCD is ,100)
(Sum of two enter number for GCD is,300)
```

Below is the coding screenshot for all the questions.



```
1 package Example
2
3 object Assignment2 {
4
5     // 2. Determine whether a given integer number is prime.
6     def isPrime(number: Int): Boolean = {
7         if (number <= 1)
8             false
9         else if (number == 2)
10            true
11        else
12            !(2 to number/2).exists(x => number % x == 0)
13    }
14
15    // 3. Determine the greatest common divisor of two positive integer numbers.
16    def gcd(x: Int, y: Int): Int = {
17        if (x == 0) y
18        else if (y == 0) x
19        else if (x < y) gcd(x, y-x)
20        else gcd(x-y, y)
21    }
22
23    // 4. Use def keyword and define functions in scala and execute them by passing values to variables.
24    def add(x: Int, y: Int): Int = {
25        var sum: Int = 0
26        sum = x + y
27        return sum
28    }
29
30    def main(args: Array[String]): Unit = {
31        println("Enter Number to Check Prime")
32        var primeNumber = scala.io.StdIn.readLine().toInt
33        println(isPrime(primeNumber))
34
35        println("Enter First number for GCD")
36        var firstGCDNumber = scala.io.StdIn.readLine().toInt
37        println("Enter First number for GCD")
38        var secondGCDNumber = scala.io.StdIn.readLine().toInt
39        println("GCD is ", gcd(firstGCDNumber, secondGCDNumber))
40
41        println("Sum of two enter number for GCD is", add(firstGCDNumber, secondGCDNumber))
42    }
43 }
```