SCALA - SESSION II

Assignment

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Course: Big Data Hadoop & Spark Training

Assignment 1 –Create a Scala application to find the GCD of two numbers.

Contents

Introduction

In this assignment, we are going to use **IntelliJ IDE** to create a SCALA application to find GCD of two numbers.

Problem Statement

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

Task: GCD of two numbers

Before going to create a SCALA application, we will just see the overview of GCD formula.

Greatest Common Divisor (GCD) of two or more integers, which are not all zero, is the largest positive integer that divides each of the integers.

For example, the **gcd** of **8 and 12 is 4.**

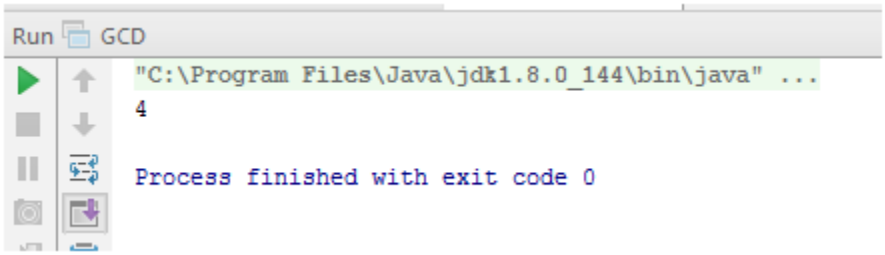
Scala Application using IntelliJ

In the below scala code, we are going to find the gcd of the two numbers 12 and 8.

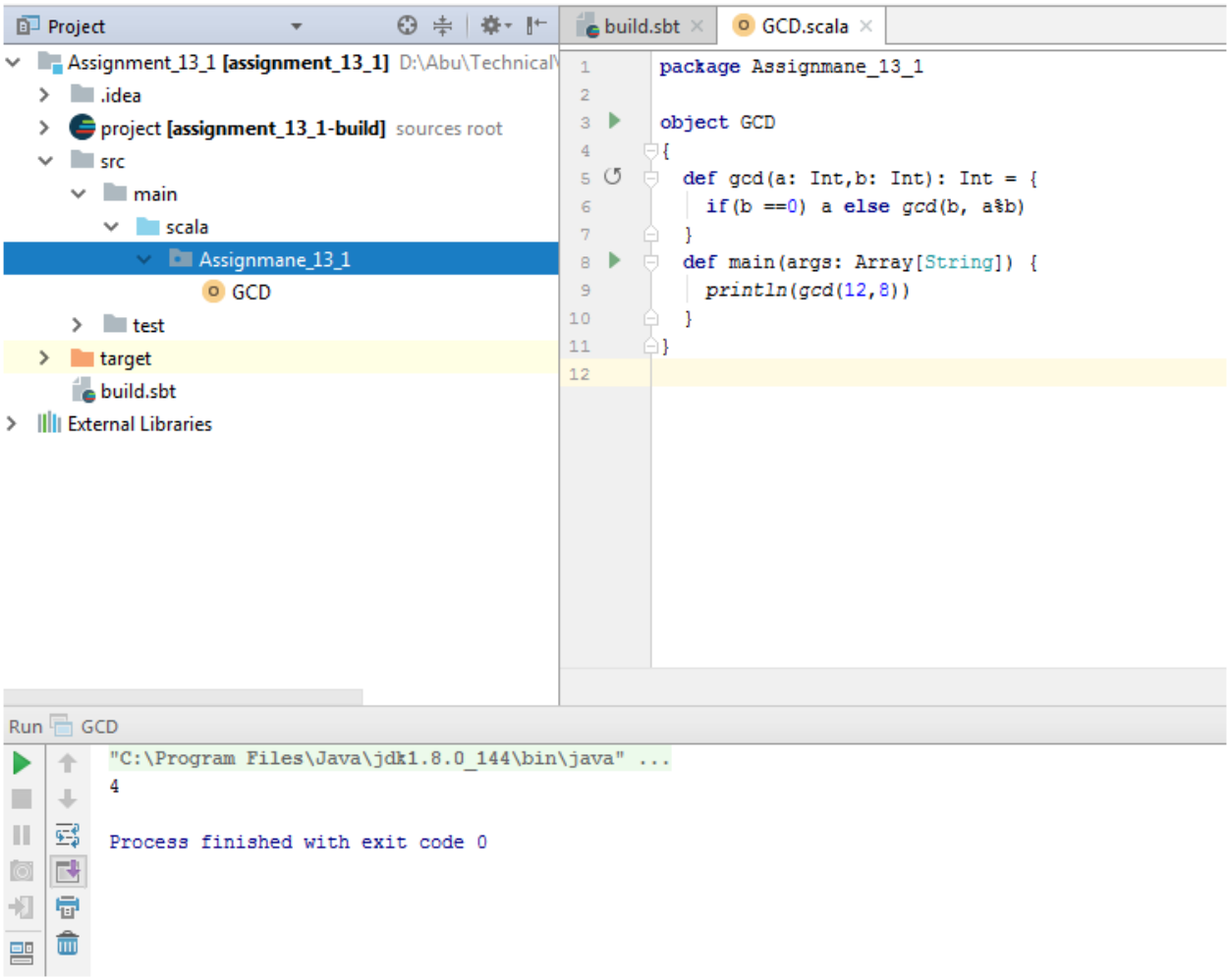
```
package Assignmane_13_1                    //package which we created

object GCD   //a new object GCD is created
{
  def gcd(a: Int,b: Int): Int = {          // declaring a function gcd
    if(b == 0) a else gcd(b, a%b)          2 integer variables a,b
  }
  def main(args: Array[String])            // Our main function takes in a named
{                                    parameter args which is an Array of String.
    println(gcd(12,8))                     // print the result
  }
}
```

Required Output



Screen Shot


Project
Assignment_13_1 [assignment_13_1] D:\Abu\Technical\
.idea
project [assignment_13_1-build] sources root
src
main
scala
Assignmane_13_1
GCD
test
target
build.sbt
External Libraries
build.sbt
GCD.scala
1 package Assignmane_13_1
2
3 object GCD
4 {
5 def gcd(a: Int,b: Int): Int = {
6 if(b ==0) a else gcd(b, a%b)
7 }
8 def main(args: Array[String]) {
9 println(gcd(12,8))
10 }
11 }
12
Run GCD
"C:\Program Files\Java\jdk1.8.0_144\bin\java" ...
4
Process finished with exit code 0