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*Section : DS*

*Semester : V*

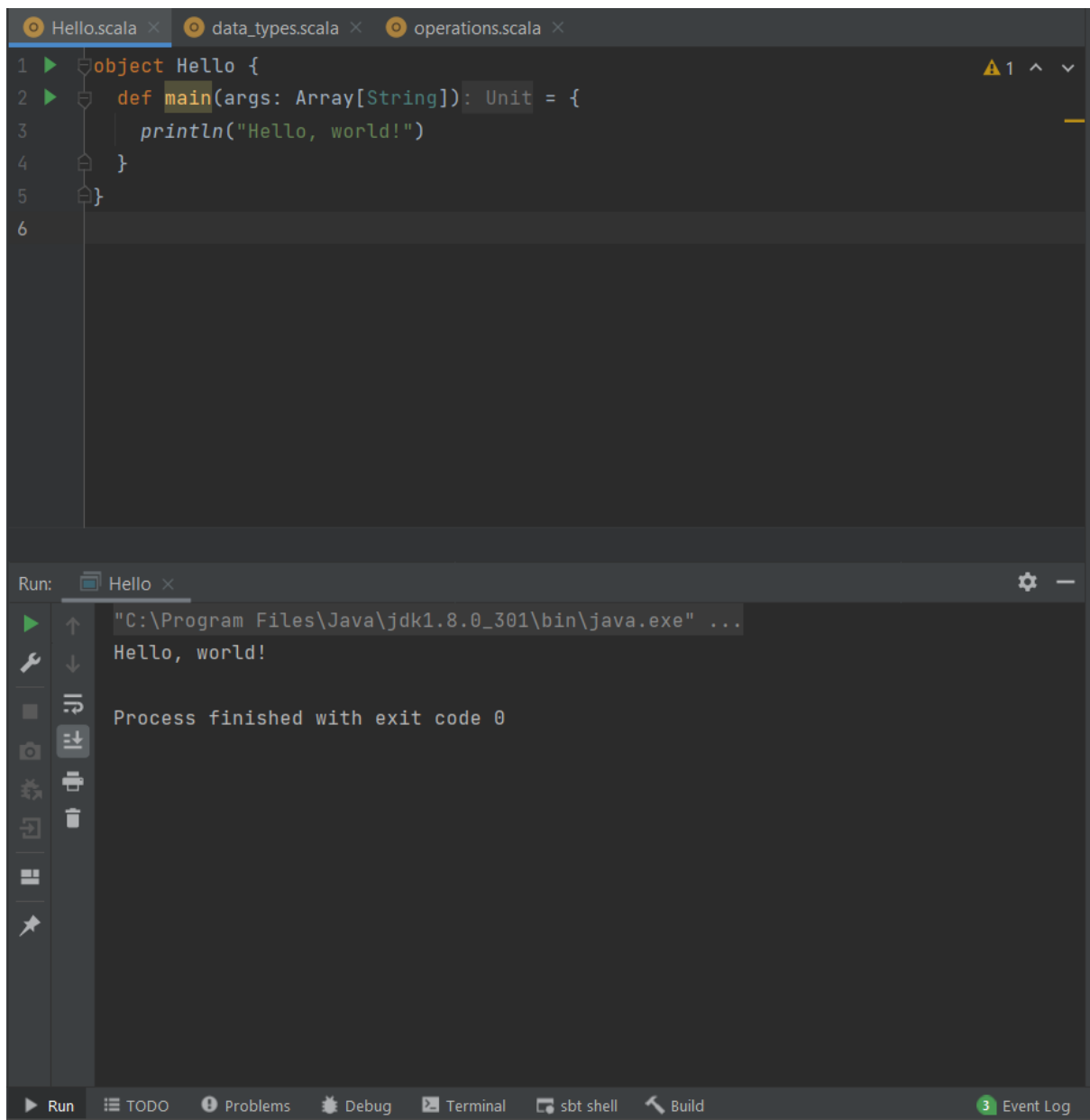
*Roll No. : 31*

*University Roll No. : 2015168*

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Codes can be found [here](#)

Q1 :



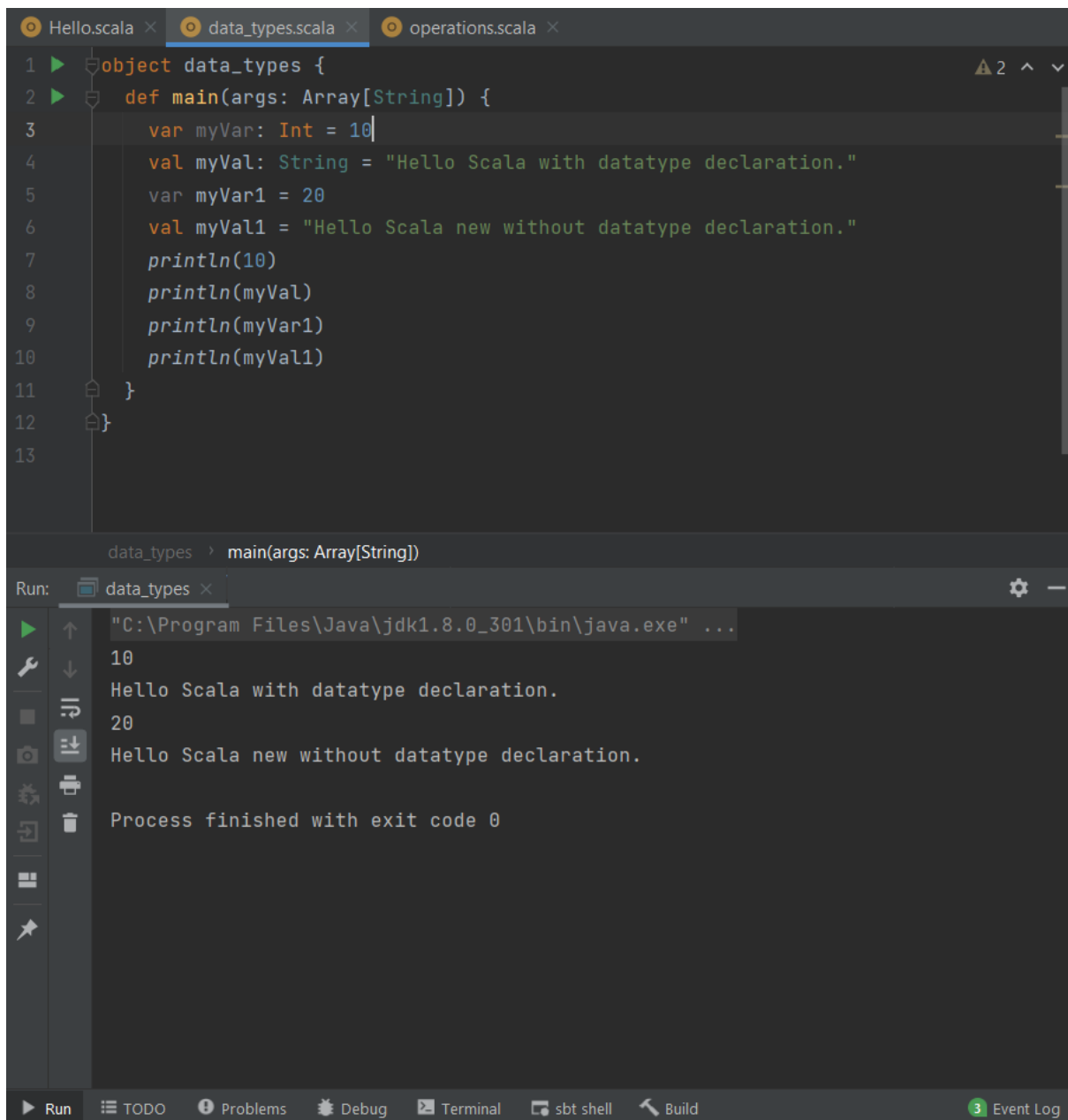
The screenshot shows an IDE with three tabs: `Hello.scala`, `data_types.scala`, and `operations.scala`. The `Hello.scala` tab is active, displaying the following code:

```
1 object Hello {  
2   def main(args: Array[String]): Unit = {  
3     println("Hello, world!")  
4   }  
5 }  
6
```

Below the code editor is a "Run" panel. It shows the command executed: `"C:\Program Files\Java\jdk1.8.0_301\bin\java.exe" ...`. The output of the program is `Hello, world!`. Below the output, it states "Process finished with exit code 0".

The bottom status bar of the IDE includes icons for Run, TODO, Problems, Debug, Terminal, sbt shell, Build, and Event Log (which shows 3 events).

Q2:



The screenshot shows an IDE with three tabs: `Hello.scala`, `data_types.scala` (active), and `operations.scala`. The `data_types.scala` file contains the following code:

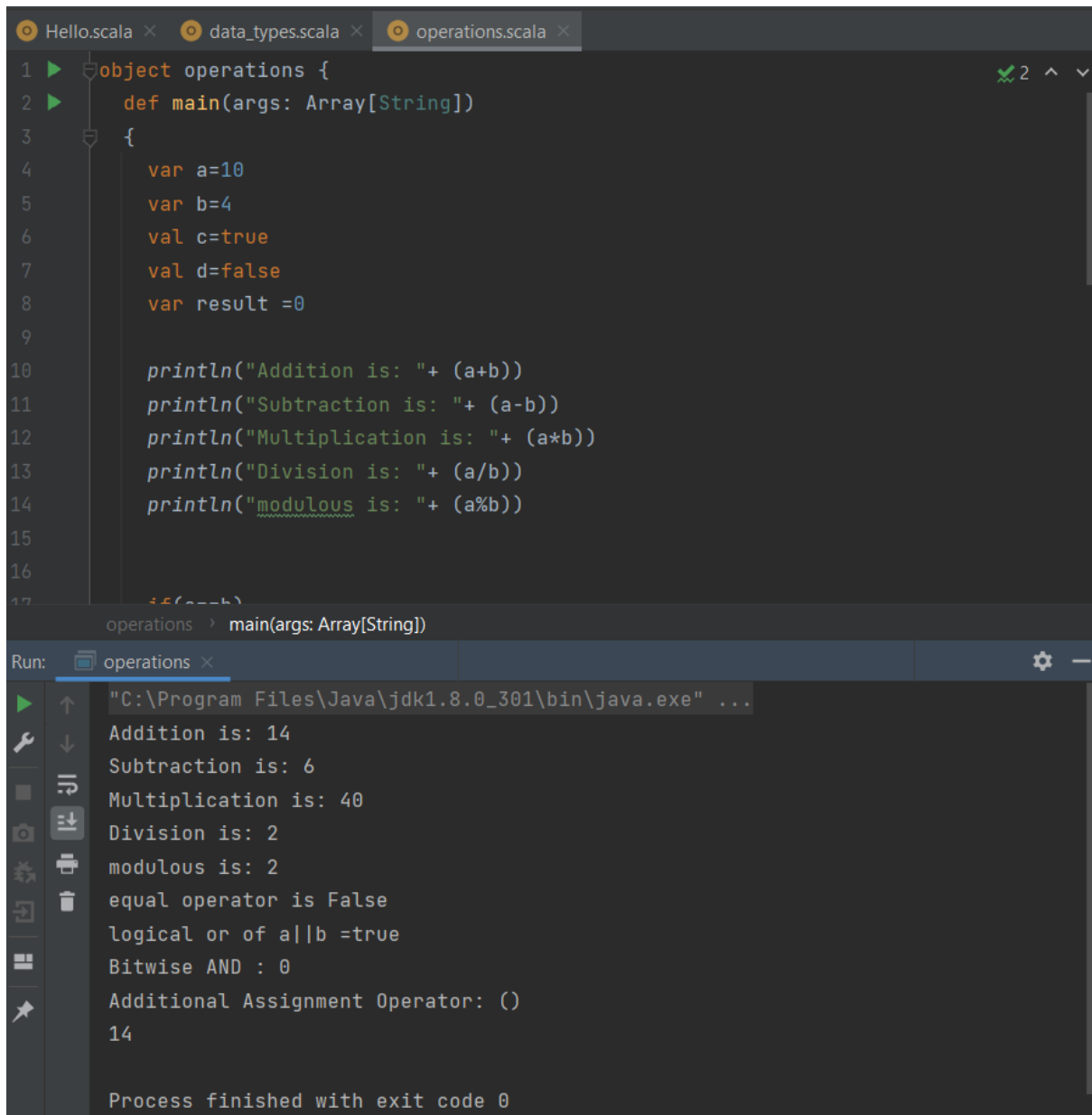
```
1 object data_types {  
2   def main(args: Array[String]) {  
3     var myVar: Int = 10  
4     val myVal: String = "Hello Scala with datatype declaration."  
5     var myVar1 = 20  
6     val myVal1 = "Hello Scala new without datatype declaration."  
7     println(10)  
8     println(myVal)  
9     println(myVar1)  
10    println(myVal1)  
11  }  
12 }  
13
```

Below the code editor, the `Run` tab is active, showing the execution of `data_types`. The command executed is `"C:\Program Files\Java\jdk1.8.0_301\bin\java.exe" ...`. The output is as follows:

```
10  
Hello Scala with datatype declaration.  
20  
Hello Scala new without datatype declaration.  
  
Process finished with exit code 0
```

The IDE's status bar at the bottom includes icons for `Run`, `TODO`, `Problems`, `Debug`, `Terminal`, `sbt shell`, `Build`, and `Event Log`.

Q3:



The image shows a screenshot of an IDE with three tabs: `Hello.scala`, `data_types.scala`, and `operations.scala`. The `operations.scala` tab is active, displaying the following Scala code:

```
1 object operations {
2   def main(args: Array[String])
3   {
4     var a=10
5     var b=4
6     val c=true
7     val d=false
8     var result =0
9
10    println("Addition is: " + (a+b))
11    println("Subtraction is: " + (a-b))
12    println("Multiplication is: " + (a*b))
13    println("Division is: " + (a/b))
14    println("modulous is: " + (a%b))
15
16
17    if(a==b)
```

Below the code editor, the Run console shows the execution of the `operations` object's `main` method. The output is as follows:

```
Run: operations X
"C:\Program Files\Java\jdk1.8.0_301\bin\java.exe" ...
Addition is: 14
Subtraction is: 6
Multiplication is: 40
Division is: 2
modulous is: 2
equal operator is False
logical or of a||b =true
Bitwise AND : 0
Additional Assignment Operator: ()
14
Process finished with exit code 0
```