

Assignment 15.1

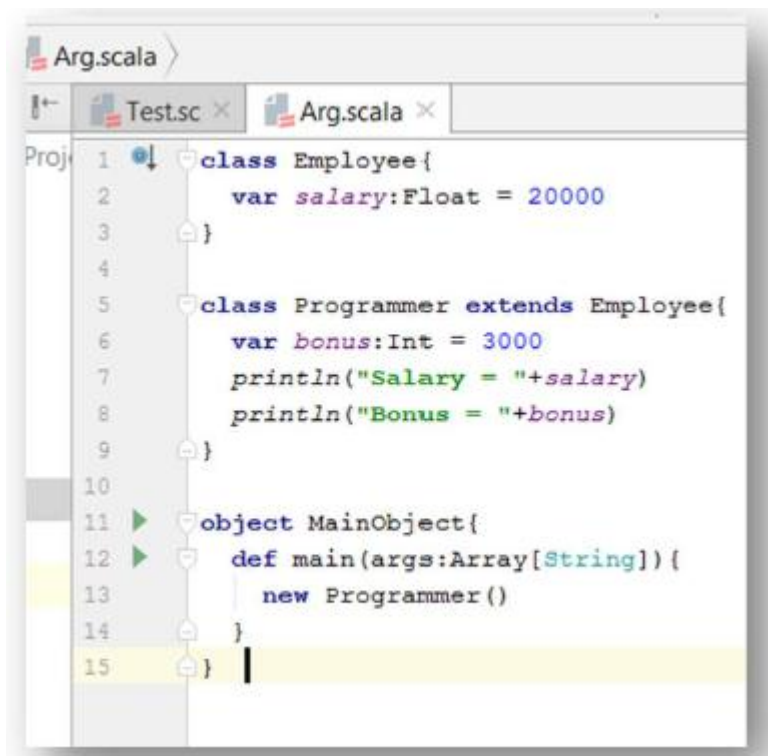
Problem Statement :-

1. Write a simple program to show inheritance in scala.
2. Write a simple program to show multiple inheritance in scala.

Solution:-

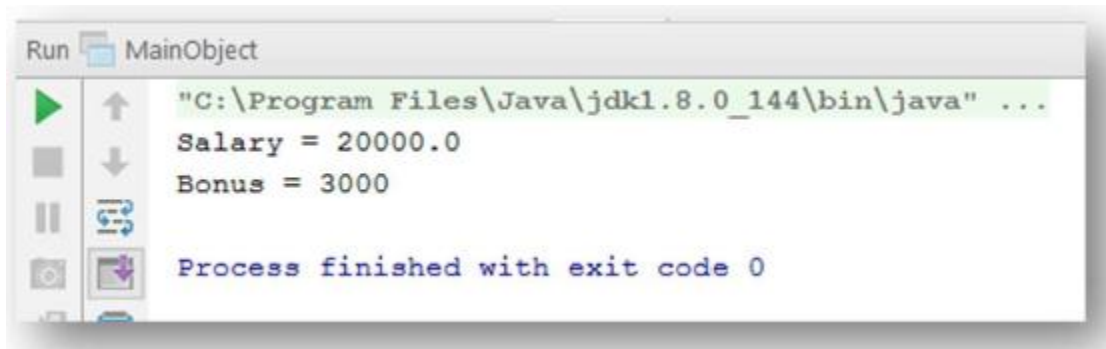
- Program to show inheritance in scala

In this program, we are performing an inheritance of a class into another class. In the class Employee we have defined Salary as float, and inherited Employee into the class Programmer where we have defined Bonus as Int.



```
Arg.scala >
Test.sc x Arg.scala x
Project 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
1 class Employee{
2     var salary:Float = 20000
3 }
4
5 class Programmer extends Employee{
6     var bonus:Int = 3000
7     println("Salary = "+salary)
8     println("Bonus = "+bonus)
9 }
10
11 object MainObject{
12     def main(args:Array[String]){
13         new Programmer()
14     }
15 }
```

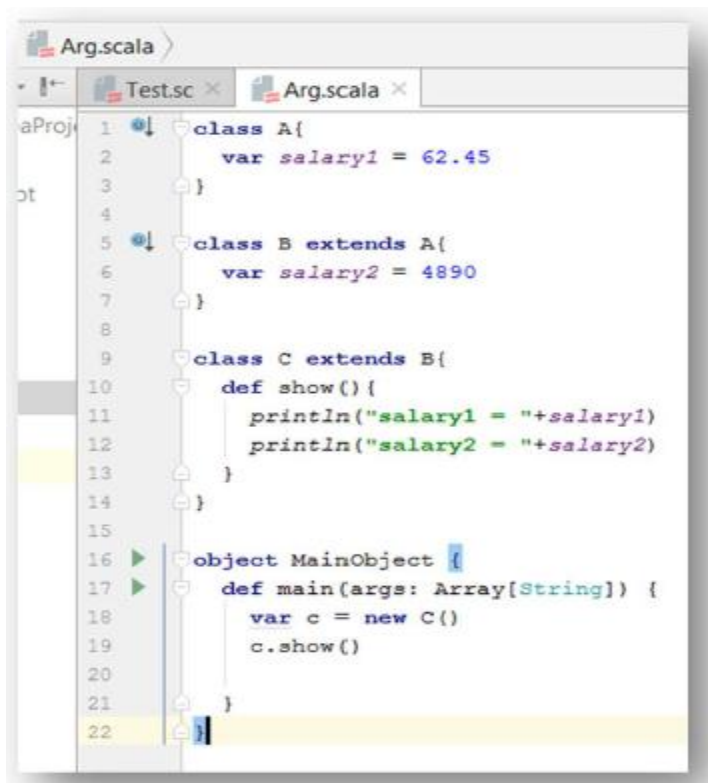
You will notice that Salary gives an output with decimals whereas Bonus gives an output as proper number.



```
Run MainObject
"C:\Program Files\Java\jdk1.8.0_144\bin\java" ...
Salary = 20000.0
Bonus = 3000
Process finished with exit code 0
```

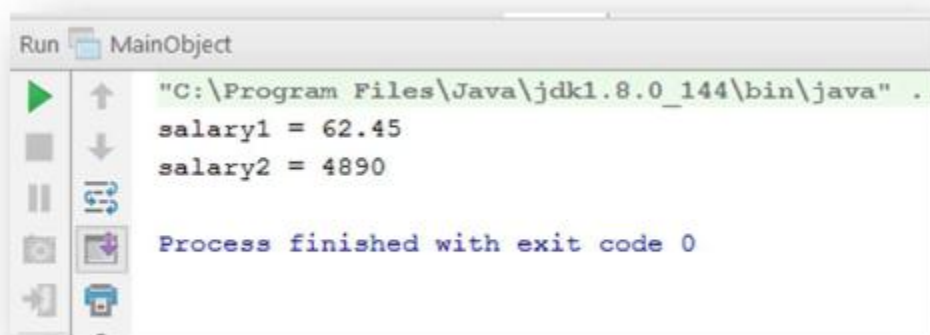
- **Program to show multiple inheritance in scala**

In this program, we are performing multiple inheritance. We are going to inherit Class A -> Class B and Class B -> Class C. We haven't specified any object type for the variables Salary1 and Salary2.



```
Arg.scala
Test.sc x Arg.scala x
1 class A{
2     var salary1 = 62.45
3 }
4
5 class B extends A{
6     var salary2 = 4890
7 }
8
9 class C extends B{
10     def show(){
11         println("salary1 = "+salary1)
12         println("salary2 = "+salary2)
13     }
14 }
15
16 object MainObject {
17     def main(args: Array[String]) {
18         var c = new C()
19         c.show()
20     }
21 }
22
```

You will notice that the output has decimals as well as proper number since we haven't defined object type for the variables.



```
Run MainObject
"C:\Program Files\Java\jdk1.8.0_144\bin\java" ..
salary1 = 62.45
salary2 = 4890
Process finished with exit code 0
```