

Assignment 17

Task1

Write a simple program to show inheritance in scala

```
class Employee{
    var salary:Float = 10000
}

class Programmer extends Employee{           //Programmer inherits the
                                              properties of Employee

    var bonus:Int = 5000
    println("Salary = "+salary)
    println("Bonus = "+bonus)
}

object Employee{
    def main(args:Array[String]){
        new Programmer()
    }
}
```

Task2

Write a simple program to show multiple inheritance in scala

```
class Emp{
    var salary_1 = 10000
}

class Analyst extends Emp{                  //Analyst inherits the properties of Emp
    var salary_2 = 20000
}

class Manager extends Analyst{             //Manager inherits the properties of
Analyst
    def show(){
        println("Salary of the manager =" + (salary_1+salary_2))
    }
}
```

```

}

object Employee_2{
  def main(args:Array[String]){
    var m = new Manager()
    m.show()
  }
}

```

Task3

Write a partial function to add three numbers in which one number is constant and two numbers can be passed as inputs and define another method which can take the partial function as input and squares the result.

```

object Add{
  val a =25 //initialising a constant variable a
  def add(b:Int,c:Int):Int = { a+b+c //defining a method for the addition of a
                                     //constant number and two variables
  }
  def sq(x:Int,y:Int, f:(Int,Int)=>Int):Unit = { //defining a method which takes
                                                  //the above method as input
    f(x,y)
    println ("Square is "+ f(x,y)*f(x,y)) //square the result,
                                           //obtained from addition
  }

  def main(args: Array[String]) = { //main method
    val res= sq(5,5,add) //passing values and the add function to
                          //the square function and storing in a
                          //variable
  }
}

```

Task4

Write a program to print the prices of 4 courses of Acadgild:

Android App Development -14,999 INR

Data Science - 49,999 INR

Big Data Hadoop & Spark Developer – 24,999 INR

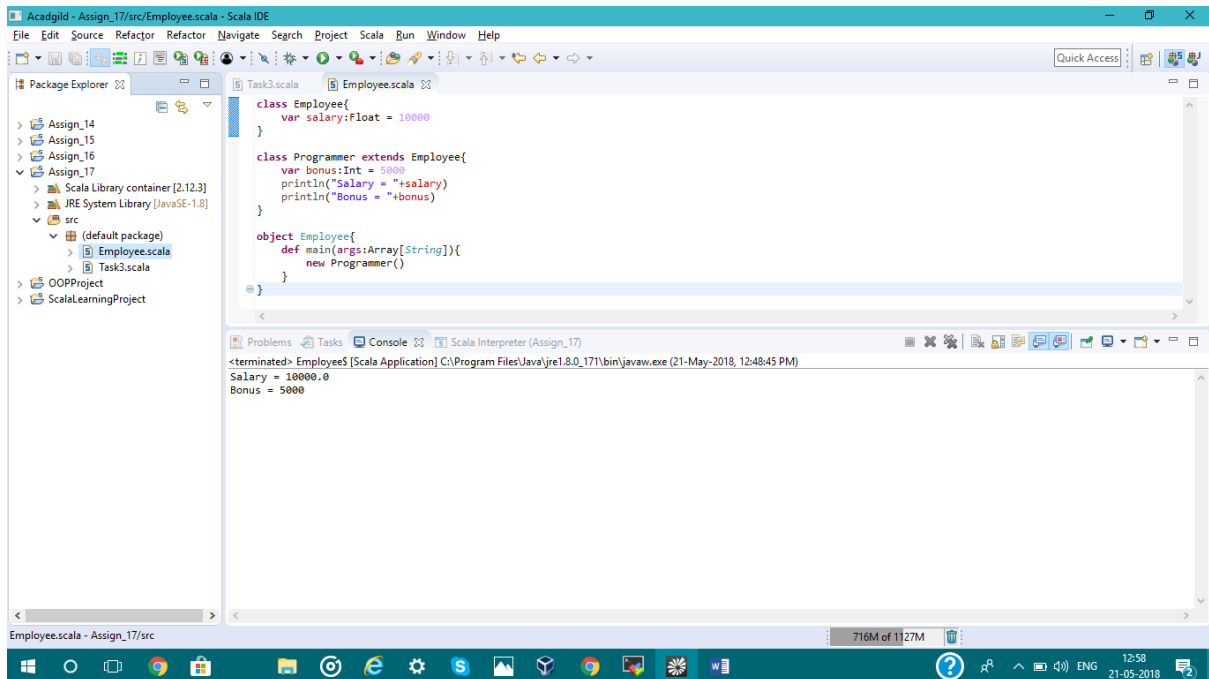
Blockchain Certification – 49,999 INR

using match and add a default condition if the user enters any other course.

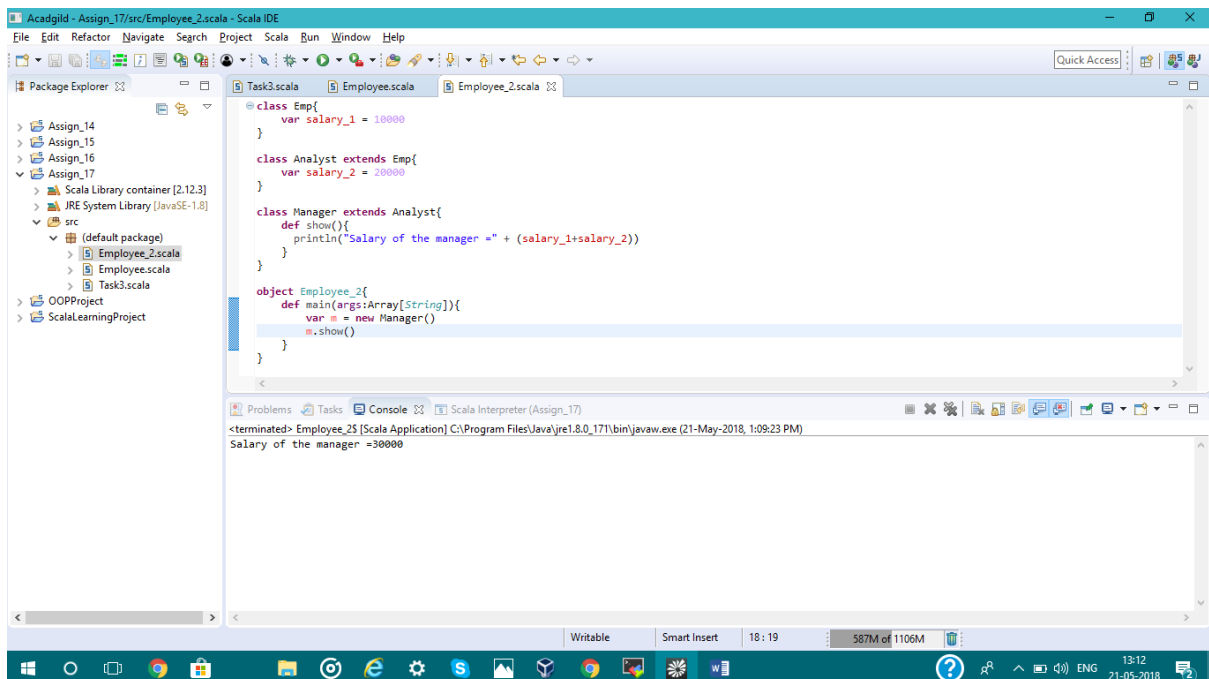
```
import java.util.Scanner;
object Task3 {
  def Acadgild(Course : String): Unit =
    Course match                                     //match case
    {
      case "Android App Development" => println("Fees is 14999");
      case "Data Science" => println("Fees is 49999");
      case "Big Data Hadoop & Spark Developer" => println("Fees is 24999");
      case "Blockchain Certification" => println("Fees is 49999");
      case _ => println("No such course available");
    }
  def main(args: Array[String]) {
    println("Enter the course ")
    val scanner = new java.util.Scanner(System.in) //for taking input from the
    user
    val course = scanner.nextLine();
    val fees = Acadgild(course)
  }
}
```

Screenshots

Task1



Task2



Task3

The screenshot shows the Scala IDE interface. The Package Explorer on the left lists several projects, including Assign_17, which contains a src directory with Add.scala, Employee_2.scala, and Task3.scala. The main editor displays Task3.scala with the following code:

```
object Add {  
  val a = 12  
  def add(b: Int, c: Int): Int = a + b + c  
  def sq(x: Int, y: Int, f: (Int, Int) => Int): Unit = {  
    f(x, y)  
    println("Square is " + f(x, y) * f(x, y))  
  }  
  def main(args: Array[String]) = {  
    val res = sq(5, 5, add)  
  }  
}
```

The Console at the bottom shows the output of the program: "Square is 1225".

Task4

The screenshot shows the Scala IDE interface. The Package Explorer on the left lists several projects, including Assign_17, which contains a src directory with Task3.scala. The main editor displays Task3.scala with the following code:

```
import java.util.Scanner;  
object Task3 {  
  def Acadgild(course: String): Unit =  
    course match {  
      case "Android App Development" => println("Fees is 14999");  
      case "Data Science" => println("Fees is 49999");  
      case "Big Data Hadoop & Spark Developer" => println("Fees is 24999");  
      case "Blockchain Certification" => println("Fees is 49999");  
      case _ => println("No such course available");  
    }  
  def main(args: Array[String]) {  
    println("Enter the course ")  
    val scanner = new java.util.Scanner(System.in)  
    val course = scanner.nextLine();  
    val fees = Acadgild(course)  
  }  
}
```

The Console at the bottom shows the output of the program: "Enter the course", "Android App Development", "Fees is 14999".