Practical 02 – 22001212

01)

```scala
object demo{
    def main(args:Array[String]):Unit={
        var k=2;
        var i=k; var j=k;
        var m=5; var n=m;
        var f=12.0f;
        var g=4.0f;
        var c='X';
        println("k + 12 * m = " + (k + 12 * m));
        println("m / j = "+(m / j));
        println("n % j = "+(n % j));
        println("m / j * j = "+(m / j * j));
        println("f + 10*5 +g = "+(f + 10*5 +g));
        println("++i * n = "+ result);

    }
}
```

```
PROBLEMS 2  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
[Running] scala "c:\Users\User\Desktop\UCSC\2nd Year Sem-01\SCS 2204 -
k + 12 * m = 62
m / j = 2
n % j = 1
m / j * j = 4
f + 10*5 +g = 66.0
++i * n = 15
```

02)

22001212_q2.scala > {} demo > main

```scala
object demo{
    def main(args:Array[String]):Unit={
        var a:Int=2;
        var b:Int=3;
        var c:Int=4;
        var d:Int=5;
        var k:Float=4.3f;
        var g:Float=4.0f;
        b-=1;
        var res1= b  * a + c *(d);
        d -= 1;
        println("- -b * a + c *d - -  =: "+ (res1));
        a+=1;
        println("a++ =: "+ a);
        var res2= (-2 * ( g - k ) + c)
        println("-2 * ( g - k ) +c =: "+ res2)
        println("c=c++ =: "+ c)
        c+=1;
        c+=1;
        c=c*a;
        a+=1;
        println("c=++c*a++ =: "+c);

    }
}
```

```
[Running] scala "c:\Users\User\Desktop\UCSC\2nd Year Sem-
- -b * a + c *d - -  =: 24
a++ =: 3
-2 * ( g - k ) +c =: 4.6000004
c=c++ =: 4
c=++c*a++ =: 18

[Done] exited with code=0 in 5.881 seconds
```

03)

22001212_q3.scala > {} demo

```scala
object demo{
    def normalWorking(normalHours:Double):Double={
        250*normalHours;
    }

    def overtimeWorking(otHours:Double):Double={
        85*otHours;
    }

    def grossSalary(normalHours:Double,otHours:Double):Double={
        normalWorking(normalHours)+overtimeWorking(otHours);
    }

    def taxPayment(normalHours:Double,otHours:Double):Double={
        grossSalary(normalHours,otHours)*0.12;
    }

    def finalSalary(normalHours:Double,otHours:Double):Double={
        grossSalary(normalHours,otHours)-taxPayment(normalHours,otHours);
    }

    def main(args:Array[String]):Unit={
        println("Final Weekly salary of an employee who works 40 (normal) and 30(OT) hoursper week = " + fina
    }
}
```

```
[Running] scala "c:\Users\User\Desktop\UCSC\2nd Year Sem-01\SCS 2204 - Functional Programming\Pr
Final Weekly salary of an employee who works 40 (normal) and 30(OT) hoursper week = 11044.0
```

04)

22001212_q4.scala > {} demo > cost

```scala
object demo{

    def no_of_attendees(ticketPrice:Int):Int ={
        120+ (15-ticketPrice)/5*20;
    }

    def income(ticketPrice:Int):Int={
        no_of_attendees(ticketPrice)*ticketPrice;
    }

    def cost(ticketPrice:Int):Int={
        500 + no_of_attendees(ticketPrice)*3;
    }

    def profit(ticketPrice:Int):Int= income(ticketPrice)-cost(ticketPrice);

    def main(args:Array[String]):Unit={
        println("Profit when the ticket price is Rs.10 =: "+ profit(10));
        println("Profit when the ticket price is Rs.15 =: "+ profit(15));
        println("Profit when the ticket price is Rs.20 =: "+ profit(20));
    }
}
```

```
[Running] scala "c:\Users\User\Desktop\UCSC\2nd Year Sem-01\SCS 2204
Profit when the ticket price is Rs.10 =: 480
Profit when the ticket price is Rs.15 =: 940
Profit when the ticket price is Rs.20 =: 1200

[Done] exited with code=0 in 5.754 seconds
```