Scala coding assignment-1

1. WAP to calculate student grade based on below rules
   a. 90 to 100 -> Grade A
   b. 80 to 90 -> Grade B
   c. 70 to 80 -> Grade C
   d. Failure.

```
class Marks(name:String,x:Int) {
  def test() {
    for (this.x <- 90 to 100 if this.x >= 90; if this.x <= 100) {
      println(this.name+" :Grade is A")
    }
    for (this.x <- 80 to 90 if this.x >= 80; if this.x < 90) {
      println(this.name+" :Grade is B")
    }
    for (this.x <- 70 to 80 if this.x >= 70; if this.x < 80) {
      println(this.name+" :Grade is C")
    }
    for (this.x <- 1 to 70 if this.x >= 1; if this.x < 70) {
      println(this.name+" :Grade is Fail")
    }
  }
}
object Grade {
  def main(args:Array[String]):Unit={
   var s1=new Marks("Raju",95)
    var s2=new Marks("Ramu",85)
    var s3=new Marks("Rajesh",75)
    var s4=new Marks("Rahul",65)
    s1.test();
    s2.test();
    s3.test();
    s4.test();

  }
}
```

Output:

Raju :Grade is A

Ramu :Grade is B

Rajesh :Grade is C

Rahul :Grade is Fail

2. WAP to calculate maximum % scored student report from below data.

{id:101,name:raj,cmarks:45,pmarks:55,mmarks:67}
{id:102,name:rajesh,cmarks:65,pmarks:85,mmarks:77}
{id:103,name:suraj,cmarks:43,pmarks:55,mmarks:60}
{id:104,name:tom,cmarks:71,pmarks:65,mmarks:70}

```
class Markss(id:Int,name:String,m1:Int,m2:Int,m3:Int) {
  def test():Int={
    var perc = (this.m1 + this.m2 + this.m3) / 3
    return perc
  }
}
object Percentage {
  def main(args:Array[String]):Unit={
    var s1=new Markss(101,"Raju",45,m2=55,m3=67)
    var s2=new Markss(102,"Ramu",65,m2=85,m3=77)
    var s3=new Markss(103,"Rajesh",43,m2=55,m3=60)
    var s4=new Markss(104,"Rahul",71,m2=65,m3=70)
    var per1: Int=s1.test();
    var per2: Int=s2.test();
    var per3: Int=s3.test()
    var per4: Int=s4.test();
    if(per1>per2 && per1>per3 &&per1>per4){
      println("Maxmimum Percentage is "+per1)
    }
    else if(per2>per1 && per2>per3 && per2>per4){
      println("Maxmimum Percentage is "+per2)
    }
    else if(per3>per2 && per3>per1 && per3>per4){
      println("Maxmimum Percentage is "+per3)
    }
    else if(per4>per2 && per4>per3 && per4>per1){
      println("Maxmimum Percentage is "+per1)
    }
  }

  }
```

Output:

Maxmimum Percentage is 75

3. WAP to perform sorting of below data based on id and name(create class, object and a method for sorting in util class)

{id:101,name:raj}
{id:121,name:rajesh}
{id:130,name:suraj}
{id:114,name:tom}

```
class Stu(id:Int,name:String){
  def printMe(): Unit ={
    println("Hey this is "+this.name+ " my id is " +this.id )

    val  ids=List(st1,st2,st3,st4)


    println
(ids.sortBy(ids=>(ids.name,ids.id)(Ordering[Int].reverse)))

    }
object TestSub {
  def main(args:Array[String]){
    var st1=new Stu(id=101,name="raja");
    var st2=new Stu(id=121,name="rajsh");
    var st3=new Stu(id=130,name="suraj");
    var st4=new Stu(id=114,name="tom")
    st1.printMe();
    st2.printMe();
    st3.printMe();
    st4.printMe();
    }
  }
}
```