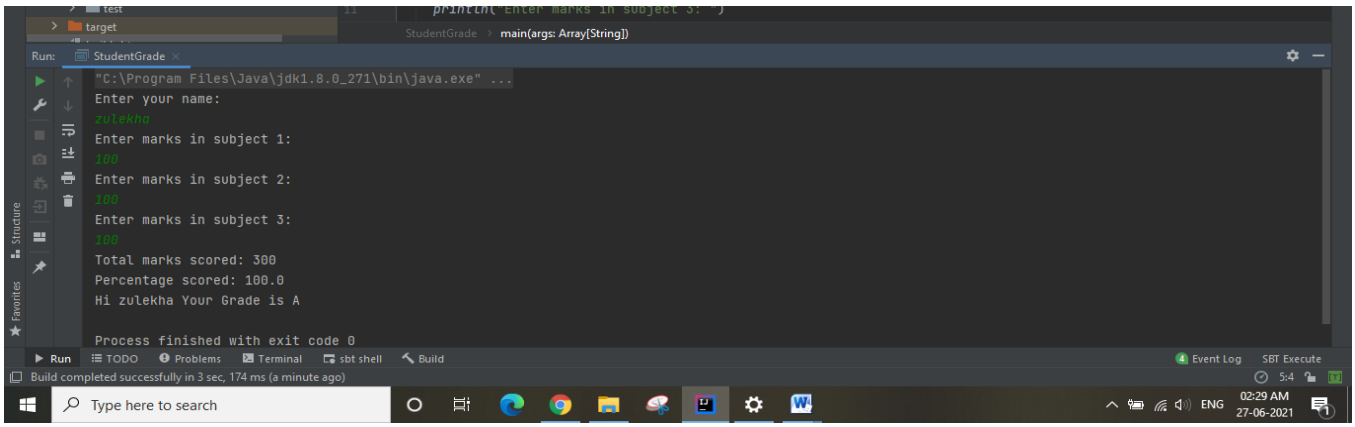
Scala coding assignment-1

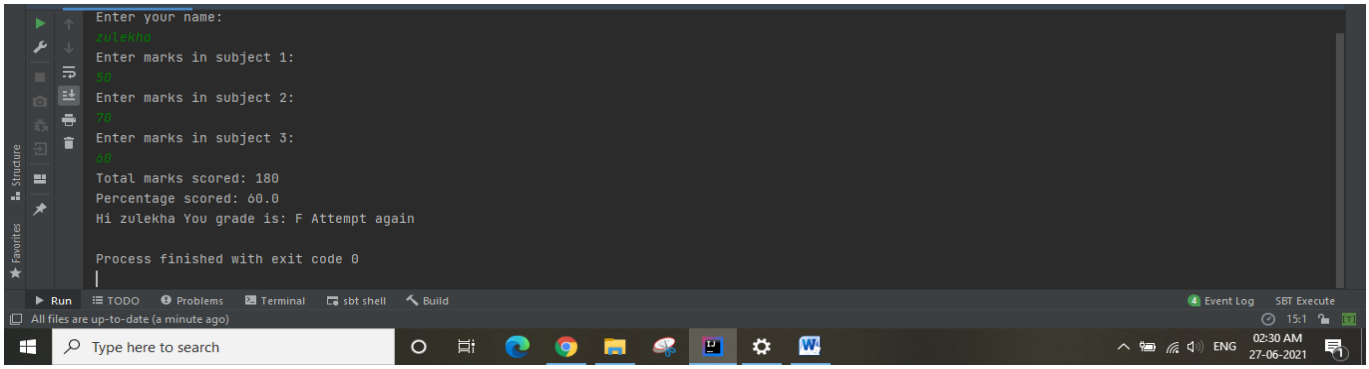
1. WAP to calculate student grade based on below rules
   a. 90 to 100 -> Grade A
   b. 80 to 90 -> Grade B
   c. 70 to 80 -> Grade C
   d. Failure.

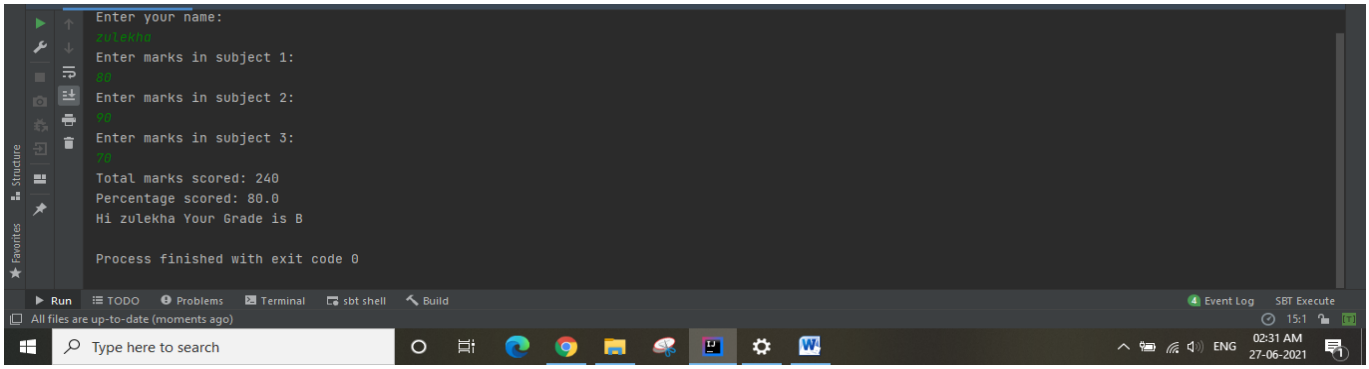
Program:

```
object StudentGrade {
  def main(args: Array[String]): Unit = {

    println("Enter your name: ")
    val name = scala.io.StdIn.readLine()
    println("Enter marks in subject 1: ")
    var m1 = scala.io.StdIn.readInt()
    println("Enter marks in subject 2: ")
    var m2 = scala.io.StdIn.readInt()
    println("Enter marks in subject 3: ")
    var m3 = scala.io.StdIn.readInt()

    var sum: Int = m1 + m2 + m3;
    val per: Float = sum/3
    var Grade: String = ""
    println("Total marks scored: "+sum)
    println("Percentage scored: "+per)

    if(per >= 90) {
      Grade = "A"
      println("Hi "+name+" Your Grade is " + Grade)
    }
    else if (per >= 80 & per < 90) {
       Grade = "B"
       println("Hi "+name+" Your Grade is " + Grade)
      }

    else if (per >= 70 & per < 80) {
       Grade = "C"
       println("Hi "+name+" Your Grade is " + Grade)
      }

       else {
         Grade = "F"
         println("Hi "+name+" You grade is: " + Grade + " Attempt again")
        }
      }
  }
```

Output:





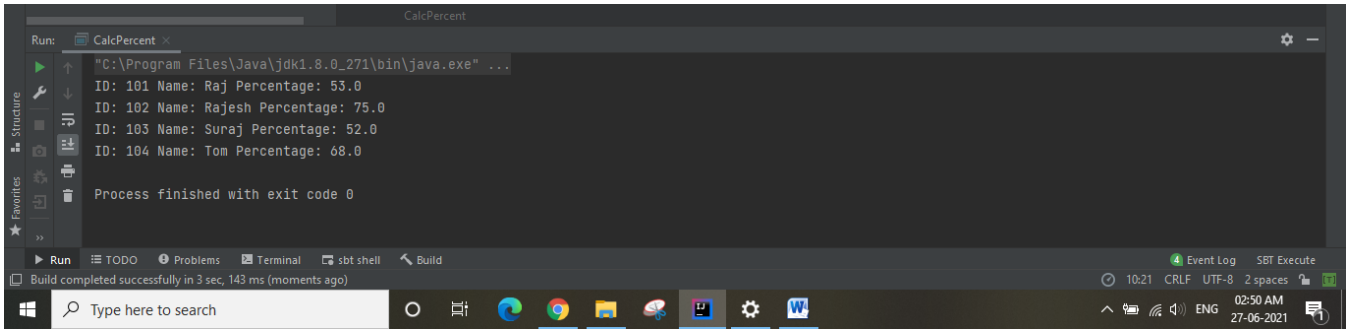


2. WAP to calculate maximum % scored student report from below data.
   {id:101,name:raj,cmarks:45,pmarks:55,mmarks:67}
   {id:102,name:rajesh,cmarks:65,pmarks:85,mmarks:77}
   {id:103,name:suraj,cmarks:43,pmarks:55,mmarks:60}
   {id:104,name:tom,cmarks:71,pmarks:65,mmarks:70}

Program:

```
class Percentage
{
  def calculate(id:Int, name: String, cmarks: Int, pmarks: Int, mmarks: Int ): Unit =
  {
    var per: Float = (cmarks+pmarks+mmarks)/3
    println("ID: "+id+" Name: "+name+" Percentage: "+per)
  }
}

object CalcPercent {
  def main(args: Array[String]): Unit = {
    var P1=new Percentage()
    P1.calculate(101,"Raj",45,55,60)
    P1.calculate(102, "Rajesh",65,85,77)
    P1.calculate(103,"Suraj",43,55,60)
    P1.calculate(104,"Tom", 75,61,70)
  }
}
```

Output:



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}