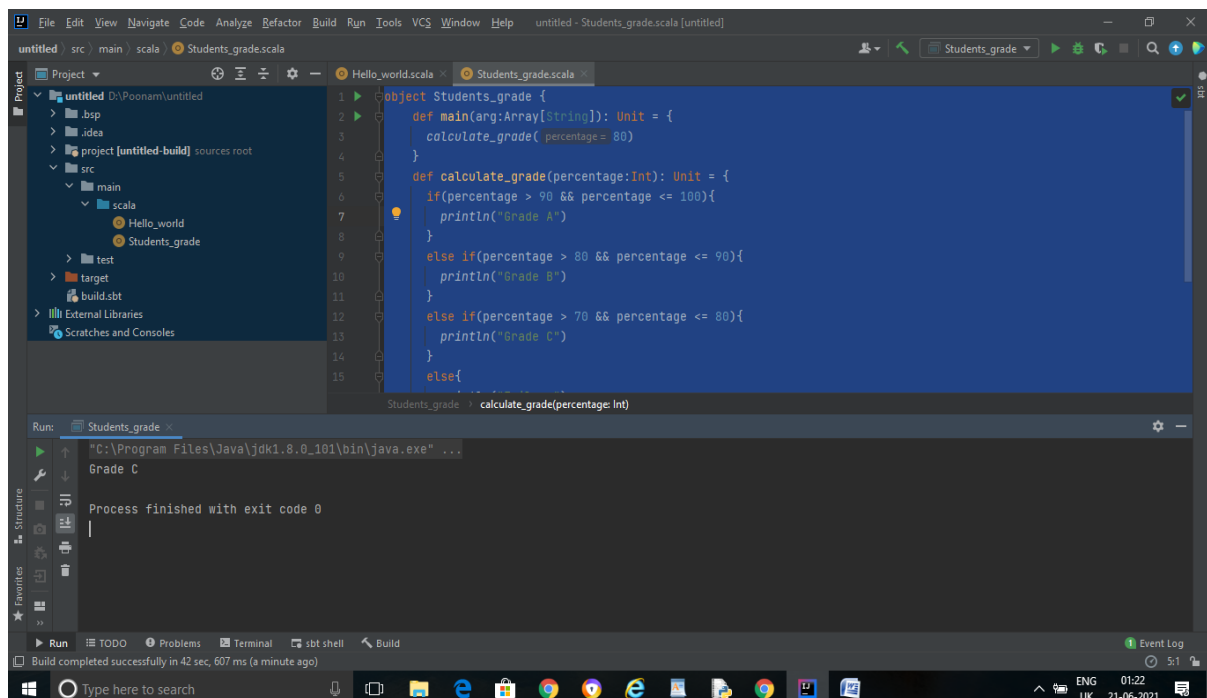


1. Write a program to calculate student grade based on below rules:

- A. 90 to 100 -> Grade A
- B. 80 to 90 -> Grade B
- C. 70 to 80 -> Grade C
- D. Failure.

Code:

```
object Students_grade {  
  def main(arg:Array[String]): Unit = {  
    calculate_grade(80)  
  }  
  def calculate_grade(percentage:Int): Unit = {  
    if(percentage > 90 && percentage <= 100){  
      println("Grade A")  
    }  
    else if(percentage > 80 && percentage <= 90){  
      println("Grade B")  
    }  
    else if(percentage > 70 && percentage <= 80){  
      println("Grade C")  
    }  
    else{  
      println("Failure")  
    }  
  }  
}
```



2. Write a Program 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}
```

Code:

```
class Max_marks(id:Int, name:String, cmarks:Int, pmarks:Int, mmarks:Int){  
  def print_marks(): Unit = {  
  
    var sum: Int = 0  
    var average: Int = 0  
    sum = cmarks+pmarks+mmarks  
    average = sum / 3  
    println("My ID is: " + this.id+ " My name is: " +this.name+" The maximum % scored mark is: " + average +  
"%")  
  }  
}  
object student_report {  
  
  def main(Args:Array[String]): Unit = {  
    var st = new maximum_marks(101,"raj",45,55,67)  
    st.print_marks()  
  
    var st1 = new maximum_marks(102,"rajesh",65,85,77)  
    st1.print_marks()  
  
    var st2 = new maximum_marks(103,"suraj",43,55,60)  
    st2.print_marks()  
  
    var st3 = new maximum_marks(104,"tom",71,65,70)  
    st3.print_marks()  
  }  
}
```

The screenshot shows an IDE with the following components:

- Project Explorer:** Shows a project named 'untitled' with a 'src' directory containing 'main' and 'scala' subdirectories. The 'scala' directory contains 'Hello_world', 'Max_marks', and 'Students_grade'.
- Code Editor:** Displays the Scala code for 'Max_marks.scala'. The code defines a class 'Max_marks' with a 'print_marks()' method and an object 'student_report' with a 'main()' method. The 'main()' method creates four instances of 'Max_marks' and calls 'print_marks()' on each.
- Run Console:** Shows the output of the program. It prints the ID, name, and maximum % scored mark for each instance: 'My ID is: 101 My name is: raj The maximum % scored mark is: 55%', 'My ID is: 102 My name is: rajesh The maximum % scored mark is: 75%', 'My ID is: 103 My name is: suraj The maximum % scored mark is: 52%', and 'My ID is: 104 My name is: tom The maximum % scored mark is: 68%'. The console also shows 'Process finished with exit code 0'.
- Bottom Bar:** Shows the status bar with 'Build completed successfully in 13 sec, 873 ms (moments ago)' and the system clock showing '4:23 CRLF UTF-8 2 spaces'.

3. Write a program 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}
```

Code: