

# ExamStats.java

```
1 /*
2  * Kristian Mentor
3  * CISC 1115
4  * HW3: Exam Statistics
5  */
6 import java.io.*;
7
8
9 public class ExamStats {
10
11 public static void main(String[] args) throws FileNotFoundException {
12 //Create scanner to get user input
13 Scanner studentInfo = new Scanner(System.in);
14
15 //Sending my output into an output file.
16 PrintWriter outputFile = new PrintWriter("D:/EclipseWorkspace/Exam Statistics/output.txt");
17 outputFile.println("\t \t \t \t Exam Statistics");
18 outputFile.println("=====");
19 outputFile.flush(); //you must flush the data being sent to the output file.
20 int ID, numCorrect, numWrong, amtStudents=0;
21 int highestPercentageID=0000, highestGradeID=0000, highestGrade=0;
22 double highestPercentage=0.000;
23
24 System.out.println("\t\tWelcome to the Exam Statistics Calculator");
25 System.out.println("=====
26 + "=====");
27
28 System.out.println("Please enter the student's 4 Digit ID. (Note: 0000 will stop the program.)
   :");
29 ID=studentInfo.nextInt();
30 while(ID!=0000)
31 {
32 amtStudents++; //increase the amount of students by 1.
33 //Enter the info for the students' exam.
34 System.out.println("Enter the # of correct answers: ");
35 numCorrect=studentInfo.nextInt();
36 System.out.println("Enter the # of wrong answers: ");
37 numWrong=studentInfo.nextInt();
38
39 //Test to see if the number of questions entered is greater than 50.
40 if((numCorrect+numWrong>50)) System.out.println("Error! There are 50 questions, you entered "+
   (numCorrect+numWrong));
41 else{
42 System.out.println("Student Info Received.");
43 System.out.println("\n"); //Make a space between each entry
44 outputFile.println("ID: " +ID);
45 outputFile.println(numCorrect+" Correct "+ numWrong+ " Incorrect");
46 outputFile.println("Total Answered: " + (numCorrect+numWrong));
47 outputFile.println("Amount of questions Omitted: " + (50-(numCorrect+numWrong)));
48 outputFile.println("Grade Received: " + (numCorrect*2)+"/100");
49
50 //Test to see if no questions were answered, if none were answered, skip the rest of the
   testing.
51 if(numCorrect+numWrong==0) outputFile.println("No Questions Answered. ");
52 else {
53 if(numCorrect>numWrong) outputFile.println("More correct answers than wrong answers.");
54 else if(numCorrect<numWrong) outputFile.println("More wrong answers than correct answers.");
55 else outputFile.println("Equal amount of correct and wrong answers.");
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56 double percentage=(double)numCorrect/(numCorrect+numWrong);
57
58
59 outputFile.printf("Correct Answer percentage: %.3f \n" ,percentage);
60 if(50-(numCorrect+numWrong)<10) outputFile.println("Less than 10 questions Omitted.");
61 else outputFile.println("10 or more questions omitted.");
62 //test for the highest percentage/grade.
63 if(percentaget>highestPercentage) {highestPercentageID=ID;highestPercentage=percentage;}
64 if(numCorrect*2>highestGrade) {highestGradeID=ID; highestGrade=numCorrect*2;}
65 }
66 outputFile.println("=====");
67 outputFile.flush();
68 }
69 //begin the process for adding the next student.
70 System.out.println("Please enter the student's ID. (Note: 0000 will stop the program.) :");
71 ID=studentInfo.nextInt();
72 }
73 outputFile.printf("The highest grade was " +highestGrade+ "/100, scored by Student
    ID#" +highestGradeID);
74 outputFile.println( );
75 outputFile.printf("The highest percentage was %.3f, scored by Student ID#%d",
76 highestPercentage,highestPercentageID);
77 System.out.println("Amount of Students Entered: "+amtStudents);
78 System.out.println("Now Exiting Program...");
79
80 //close file stream/printer
81 outputFile.close();
82 studentInfo.close();
83 }
84
85 }
86
```