```java
/*
 * Kristian Mentor
 * CISC 1115
 * HW3: Exam Statistics
 */
import java.io.*;

public class ExamStats {

public static void main(String[] args) throws FileNotFoundException {
    //Create scanner to get user input
    Scanner studentInfo = new Scanner(System.in);

    //Sending my output into an output file.
    PrintWriter outputFile = new PrintWriter("D:/EclipseWorkspace/Exam Statistics/output.txt");
    outputFile.println("\t \t \t \tExam Statistics");
    outputFile.println("================================================");
    outputFile.flush(); //you must flush the data being sent to the output file.
    int ID, numCorrect, numWrong, amtStudents=0;
    int highestPercentageID=0000,highestGradeID=0000,highestGrade=0;
    double highestPercentage=0.000;

    System.out.println("\t\tWelcome to the Exam Statistics Calculator");
    System.out.println("================================================================================
=======");

    System.out.println("Please enter the student's 4 Digit ID. (Note: 0000 will stop the
program.) :");
    ID=studentInfo.nextInt();
    while(ID!=0000)
    {
        amtStudents++;//increase the amount of students by 1.
        //Enter the info for the students' exam.
        System.out.println("Enter the # of correct answers: ");
        numCorrect=studentInfo.nextInt();
        System.out.println("Enter the # of wrong answers: ");
        numWrong=studentInfo.nextInt();
        //Test to see if the number of questions entered is greater than 50.
        if(numCorrect+numWrong>50)System.out.println("Error!  There are 50 questions, you
entered "+ (numCorrect+numWrong));
        else{
        System.out.println("Student Info Received.");
        System.out.println("\n"); //Make a space between each entry
        outputFile.println("ID: " +ID);
        outputFile.println(numCorrect+" Correct "+ numWrong+ " Incorrect");
        outputFile.println("Total Answered: "+ (numCorrect+numWrong));
        outputFile.println("Amount of questions Omitted: "+ (50-(numCorrect+numWrong)));
        outputFile.println("Grade Received: "+(numCorrect*2)+"/100");

        //Test to see if no questions were answered, if none were answered, skip the rest of
the testing.
        if(numCorrect+numWrong==0) outputFile.println("No Questions Answered. ");
        else {

            if(numCorrect>numWrong) outputFile.println("More correct answers than wrong
answers.");
            else if(numCorrect<numWrong) outputFile.println("More wrong answers than correct
```

```
answers.");
54              else outputFile.println("Equal amount of correct and wrong answers.");
55              double percentage=(double)numCorrect/(numCorrect+numWrong);
56
57
58              outputFile.printf("Correct Answer percentage:  %.3f \n" ,percentage);
59              if(50-(numCorrect+numWrong)<10) outputFile.println("Less than 10 questions
Omitted.");
60              else outputFile.println("10 or more questions omitted.");
61              //test for the highest percentage/grade.
62              if(percentage>highestPercentage)
{highestPercentageID=ID;highestPercentage=percentage;}
63              if(numCorrect*2>highestGrade) {highestGradeID=ID; highestGrade=numCorrect*2;}
64                      }
65              outputFile.println("================================================");
66              outputFile.flush();
67
68              }
69
70          //begin the process for adding the next student.
71          System.out.println("Please enter the student's ID. (Note: 0000 will stop the program.)
:");
72          ID=studentInfo.nextInt();
73       }
74          outputFile.printf("The highest grade was " +highestGrade+ "/100, scored by Student
ID#"+highestGradeID);
75          outputFile.println( );
76          outputFile.printf("The highest percentage was %.3f, scored by Student
ID#%d",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
```