

Error log

```
package mastery;

import java.util.Scanner;

public class Gradebook {

    //array to store each of the students 5 test grades
    int[][] grades;

    //Lets the user input values
    Scanner in = new Scanner(System.in);

    //constructor method
    public Gradebook() {

        //initialize the array with 12 students and 5 test grades for each student
        grades = new int[12][5];
    }

    public void getGrades() {
        //loop through each student and asks user to enter each students grades then stores in the array
        for(int student = 0; student < grades.length; student++) {
            System.out.println("Student " + (student + 1));
            for (int test = 0; test < grades[test].length; test++) {
                System.out.print("Please enter grade for test " + (test + 1) + ": ");
                grades[student][test] = in.nextInt();
            }
        }
    }

    public void showGrades() {
        //loops through each student's grades and outputs them below an output statement of the student who
        for(int student = 0; student < grades.length; student++) {
            System.out.println("Student " + (student + 1));
            for (int test = 0; test < grades[test].length; test++) {
                System.out.print("Grade for test " + (test + 1) + ": " + grades[student][test] + "%");
            }
        }
    }
}

Please enter the students number to see their average: 12
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index 12 out of bounds for length 12
    at mastery.Gradebook.studentAvg(Gradebook.java:44)
    at mastery.Coursegrades.main(Coursegrades.java:27)
```

Something wrong within the code that is not letting me see student 12's average

```

public double studentAvg(int student) {
    //takes int student to show which student it is then adds
    double avg = 0;
    for (int test = 0; test<grades[student].length; test++) {
        avg += grades[(student)][test];
    }
    //returns the average of the student
    return (avg/5);
}

```

The problem was that i forgot that indexes start at 0 so it counts like

example:

Index 0	Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	Index 7
#1	#2	#3	# 4	#5	#6	#7	#8

```

public double studentAvg(int student) {
    //takes int student to show which student it is then adds a
    double avg = 0;
    for (int test = 0; test<grades[student-1].length; test++) {
        avg += grades[(student-1)][test];
    }
    //returns the average of the student
    return (avg/5);
}

```



So i had to add -1 because the array doesn't have an index 12 but it has a 12th index