Answer on Question 56878 Programming / Java | JSP | JSF

```
import java.util.Scanner;

public class Scores {

	// one-dimensional array to store the student names

	String[] names = {"Johnson", "Aniston", "Cooper", "Gupta", "Blair", "Clark", "Kennedy", "Bronson",
"Sunny", "Smith"};


	// parallel twodimensional array to store the test score

	int[][] scores = {

				{85, 83, 77, 91, 76},

				{80, 90, 95, 93, 48},

				{78, 81, 11, 90, 73},

				{92, 83, 30, 69, 87},

				{23, 45, 96, 38, 59},

				{60, 85, 45, 39, 67},

				{77, 31, 52, 74, 83},

				{93, 94, 89, 77, 97},

				{79, 85, 28, 93, 82},

				{85, 72, 49, 75, 63}

	};


	// parallel one-dimensional array to store grades

	char[] grades = new char[10];


	// class average variable

	double classAVG;


	/**

	 * Main function

	 * @param args

	 */

	public static void main(String[] args) {
```

```
		Scores s = new Scores();
		s.readData(); // comment this whole line if you want to use predefined values for arrays
		s.calculateAVG();
		s.printGrades();
}

/**
 * Reads and stores data into two arrays
 */
public void readData() {
		Scanner kb = new Scanner(System.in);

		for (int i = 0; i < names.length; i++) {
			System.out.print("\nName #" + (i + 1) + ": ");
			names[i] = kb.nextLine();
			for (int j = 0; j < scores[0].length; j++) {
				System.out.print("score #" + (j + 1) + ": ");
				scores[i][j] = kb.nextInt();
			}
			kb.nextLine();
		}
		kb.close();
}

/**
 * Ccalculates the average test score and grade
 */
public void calculateAVG() {
		double avg = 0;

		for (int i = 0; i < scores.length; i++) {
```

```
                avg = 0;
                for (int j = 0; j < scores[0].length; j++) {
                        avg += scores[i][j];

                }
                avg /= scores[0].length;

                if (avg >= 0 && avg < 20)
                        grades[i] = 'E';
                else if (avg >= 20 && avg < 40)
                        grades[i] = 'D';
                else if (avg >= 40 && avg < 60)
                        grades[i] = 'C';
                else if (avg >= 60 && avg < 80)
                        grades[i] = 'B';
                else if (avg >= 80 && avg <= 100)
                        grades[i] = 'A';
                else
                        grades[i] = '?';

                classAVG += avg;
        }
        classAVG /= scores.length;
}

/**
 * Outputs the results
 */
public void printGrades() {
        System.out.println("\nGrades:");
        for (int i = 0; i < grades.length; i++) {
```

```
                System.out.println(names[i] + ": " + grades[i]);
            }
            System.out.println("Class average: " + classAVG);
        }

}
```