Weekly Lab 1 – Arrays

Maximum Points = 10

 The purpose of this lab is to review your study of computer programming and algorithms from CS 1.

Design and implement a class that represents a gradebook.

Your program should ask the user for the number of grades (1-100) to enter for the assignment, followed by the grades (0-50). Your program will then display the grades, followed by the average grade for the assignment, and the highest, and lowest grades.

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 \*Gradebook.java

 \*

 \* Reads a words from the standard input and prints the number of

 \* occurrences of each letter in that word.

 \*

 \* @author (Wayne Summers)

 \* @version (january 12, 2011)

 \*/

import java.util.Scanner;

public class Gradebook

{

 public static void main(String[] args)

 {

 int[] grades = new int[100];

 int nbrGrades;

 int grade;

 Scanner scan = new Scanner(System.in);

 //get number of grades from user

 do

 {

 System.out.println("Enter the number of grades (0-100): ");

 nbrGrades = scan.nextInt();

 }

 while (nbrGrades > 100 || nbrGrades < 0);

 //read in the grades

 for (int i=0; i < nbrGrades; i++)

 {

 do

 {

 System.out.println("Enter the " + (i+1) + "th grade (0-50): ");

 grade = scan.nextInt();

 }

 while (grade > 50 || grade < 0);

 grades[i] = grade;

 }

 /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

 \* COMPUTE THE AVERAGE GRADE, THE LOWEST GRADE, and THE HIGHEST GRADE \*

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 //print grades

 System.out.println(" The list of grades is:");

 for (int i=0; i < nbrGrades; i++)

 System.out.print(grades[i] + " ");

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 \* PRINT THE AVERAGE GRADE, THE LOWEST GRADE, and THE HIGHEST GRADE \*

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 }

}

 (Due before end of the day on Friday, January 14, 2011) Submit your .java files containing your program to the dropbox in WebCT.

 Grades are determined using the following scale:

* Runs correctly..…………………:\_\_\_/3
* Correct output……..……………:\_\_\_/2
* Design of output..………………:\_\_\_/1
* Design of logic…………………:\_\_\_/2
* Standards……………………….:\_\_\_/1
* Documentation.………………...:\_\_\_/1

[Grading Rubric](http://csc.colstate.edu/summers/NOTES/1301/Grading-Rubric-Programs.htm)  ([Word document](http://csc.colstate.edu/summers/NOTES/1301/Grading-Rubric-Programs.doc))