Maddison Kiefer

Dr. Schwartz

Java Programming

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**Project 4-1 Looping**

**Source Code:**

//@author Maddison Kiefer

import java.util.Scanner;

public class ClassGradeStatistics {

public static void main(String[] args) {

Scanner scnr = new Scanner(System.in);

// Creating the variables

float sum = 0;

float min;

float max;

// Receiving grade 1 input

System.out.print("Enter grade 1: ");

// Using while loop to check that the input is a valid floating-point number

while(!scnr.hasNextFloat()) {

System.out.println("Invalid input. Enter a valid floating-point number.");

// Clears the invalid input

scnr.next();

}

// Assigning variables and creating the grade variable

float grade = scnr.nextFloat();

max = grade;

min = grade;

sum += grade;

// For loop used to get inputs for grades 2 through 10

for (int i = 2; i <= 10; i++) {

System.out.print("Enter grade " + i + ": ");

// Using while loop to check that the input is a valid floating-point number

while (!scnr.hasNextFloat()) {

System.out.println("Invalid input. Enter a valid floating-point number.");

// Clears the invalid input

scnr.next();

}

//

grade = scnr.nextFloat();

sum += grade;

// Assigns grade to max if the grade is greater than the current max

if(grade > max) {

max = grade;

}

// Assigns grade to min if the grade is less than the current min

if(grade < min) {

min = grade;

}

}

// Calculation the average of the grades

float average = sum / 10;

// Outputting all of the data for the 10 grades input

System.out.println(" ");

System.out.println("Grade Data:");

System.out.println("The average for these grades is: " + average);

System.out.println("The maximum for these grades is: " + max);

System.out.println("The minimum for these grades is: " + min);

}

}

**Executing the Application:**







