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\* Class:Main ExTT.3 Pg.#.# Author: Yin Linhai

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\* A program that receives profit and parameters for a fundraising, and then outputs the data in an easy to read format

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\* Course:Computer Science 201Teacher:Mr Blakey

\* School:Sir Winston Churchill High School, Calgary, Alberta, Canada

\* Language: Java SE 7.0Target Operating System: Java Virtual Machine

\* System:Intel Celeron 3GHz running under Windows 7 IDE: Eclipse 4.2

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**package** test\_3;

**import** java.util.Scanner;

**public** **class** Main {

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\* **@param** args

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

//intialize variables

**boolean** quit = **false**;

**double**[] student;

**double** target;

**double** sale;

**double** profitPer;

//construct scanner object

Scanner scan = **new** Scanner(System.*in*);

//ask for the number of students fundraising

System.*out*.println("How many students are fundraising?");

student = **new** **double**[scan.nextInt()];

//ask for the sales target

System.*out*.println("How many sales, is the target for each student?");

target = scan.nextDouble();

//ask for the price of the item

System.*out*.println("How much does each item sell for?");

sale = scan.nextDouble();

//ask for the profit margin

System.*out*.println("How much profit do you make per item?");

profitPer = scan.nextDouble();

//menu loop

**do** {

//print out the menu

System.*out*.println("\n\nWhat would you like to do?\n1. Add to sales\n2. Print current results\n3. Quit");

//switch for menu

**switch**(scan.nextInt()) {

//add sales to each person

**case** 1: // loop so that you can add to each person

**for**(**int** y = 0; y<student.length; y++) {

//ask for each student and add to total

System.*out*.println("How many sales has student " + (y+1) + " made?");

student[y] = scan.nextDouble();

}

**break**;

**case** 2: //Print out choice

//initialize new variables

**double** high = 0;

**double** low = 0;

**double** totalSaleValue = 0;

**double** profit = 0;

**double** deficit = 0;

//for loop deciding the lowest and highest values

**for** (**int** y = 0; y<student.length; y++) {

//if it's the highest

**if** (student[y]>high||high==0) {

high = student[y];

}

//if it's the lowest

**if** (student[y]<low||low==0) {

low = student[y];

}

}

//calculations for totals (sale, profit, owe)

**for** (**int** y = 0; y<student.length; y++) {

totalSaleValue += student[y]\*sale;

profit += student[y]\*profitPer;

deficit += student[y]\*(sale-profitPer);

}

//beginning of printing

System.*out*.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

//for loop to print each students statistics

**for** (**int** y = 0; y<student.length; y++) {

//print out which student and how much he/she made

System.*out*.println("Student " + (y+1) + " raised $" + String.*format*("%5.2f",(student[y]\*sale)));

//if/else to decide whether he is above or below the target

**if** ((student[y])<target) {

//if he's below the target

System.*out*.println("The student is $" + String.*format*("%5.2f",((target\*sale)-(student[y]\*sale))) + " under the target\n");

} **else** {

//if he's above the target

System.*out*.println("The student is $" + String.*format*("%5.2f",((student[y]\*sale)-(target\*sale))) + " over the target\n");

}

}

//print out the high/low, and other pertinent data

System.*out*.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.*out*.println("Results for band Fundraiser:");

System.*out*.println("Lowest amount:\t\t$" + String.*format*("%5.2f",(low\*sale)));

System.*out*.println("Highest amount:\t\t$" + String.*format*("%5.2f",(high\*sale)) + "\n");

System.*out*.println("Total value of sales\t$" + String.*format*("%5.2f",totalSaleValue));

System.*out*.println("Total money raised:\t$" + String.*format*("%5.2f",profit));

System.*out*.println("Total owes to supplier:\t$" + String.*format*("%5.2f",(deficit)));

System.*out*.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

**break**;

**case** 3: //quit the while loop

quit = **true**;

**break**;

**default**://if the user doesn't enter a valid choice

System.*out*.println("Please enter a valid choice.");

}

} **while**(quit!=**true**);

//end the scanner object

scan.close();

}

}

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\* I used mainly for loops because it was faster and more efficient to code

\* with since it doesn't use a variable I would need to account for throughout

\* the program. The only while loop is hooked up to a boolean value so as to

\* stop the loop and kill the program since I find while loops are much more

\* useful with a loop that won't be repeated often if at all, while while loops

\* are excellent at going through data and processing data.

\*/

**Output:**

How many students are fundraising?

2

How many sales, is the target for each student?

5

How much does each item sell for?

10

How much profit do you make?

3

What would you like to do?

1. Add to sales

2. Print current results

3. Quit

1

How many sales did student 1 make this time?

8

How many sales did student 2 make this time?

13

What would you like to do?

1. Add to sales

2. Print current results

3. Quit

2

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Student 1 raised $80.00

The student is $30.00 over the target

Student 2 raised $130.00

The student is $80.00 over the target

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Results for band Fundraiser:

Lowest amount: $80.00

Highest amount: $130.00

Total value of sales $)210.00

Total money raised: $63.00

Total owes to supplier: $147.00

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What would you like to do?

1. Add to sales

2. Print current results

3. Quit

3

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