Rajalakshmi Engineering College

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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 1_Q8

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

In the Kingdom of Finance, the royal treasury is managed by the treasurer, Sir Cedric. Sir Cedric tracks the daily expenses of the kingdom using an expense report that lists three major categories: food, clothing, and utilities. However, the King wants to know if the average daily expense is greater than at least two of these categories to ensure the kingdom is spending wisely.

Your task is to help Sir Cedric determine if the average daily expense is greater than two of the categories. Specifically, you need to calculate the average of the three expenses and check if it is greater than any two categories.

Note: Use the ternary operator

Input Format

Three integers a, b, and c represent the daily expenses for food, clothing, and utilities. Each integer is provided on a single line.

Output Format

The average of the three expenses, rounded to two decimal places.

A message indicating whether the average is greater than at least two of the expense categories.

1. If the average is greater than the two smallest monthly expenses, print "Average is greater than both X and Y," where X and Y are the two smallest expenses.
2. Otherwise, display "Average is not greater than two smallest expenses".

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 4
6
10

Output: 6.67
Average is greater than both 4 and 6

Answer

```
// You are using Java
/*import java.util.Scanner;
class Main{
   public static void main(String args[]){
      int x,y,z;
      Scanner sc = new Scanner(System.in);
      x=sc.nextInt();
      y=sc.nextInt();
      z=sc.nextInt();
      double d = (x+y+z)/3.0;
      double ravg = Math.round(d*100)/100.0;
      int firstMin = Math.min(x,Math.min(y,z));
      int secondMin;
```

```
        if(x==firstMin){
            secondMin = (y<=z) ? y:z;
        } else if(y==firstMin){
            secondMin = (x<=z) ? x:z;
        }else{
            secondMin = (x<=y) ? x:y;
        }
        System.out.printf("%.2f\n",ravg);
        boolean isGreater = (ravg > firstMin)&&(ravg > secondMin);
        String result = isGreater ? String.format("Average is greater than both %d
and %d", firstMin,secondMin):"Average is not greater than two smallest
expenses";
        System.out.println(result);
    }
}*/


import java.util.Arrays;
import java.util.Scanner;
class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int a = scanner.nextInt();
        int b = scanner.nextInt();
        int c = scanner.nextInt();
        double avg = (a + b + c) / 3.0;
        System.out.printf("%.2f \n", avg);
        String result = ((avg>a) && (avg>b))? "Average is greater than both " + a + "
and " + b : ((avg>b) && (avg>c))  ? "Average is greater than both " + b + " and " + c :
((avg>a) && (avg>c)) ? "Average is greater than both " + a + " and " + c :"Average is
not greater than two smallest expenses";
        System.out.println(result);
    }
}
```

Status : Correct **Marks : 10/10**