

Rajalakshmi Engineering College

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Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 2_Q1

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Arun is working on a project to automate the process of determining whether a student has passed or failed based on their subject marks.

He aims to create a simple program that takes positive integers as marks for five subjects from the user. If the average of the marks is greater than or equal to 50, the student has passed the exam. Otherwise, the student has failed.

Help Arun to implement the project.

Input Format

The input consists of five space-separated integers, representing the marks in five subjects.

Output Format

The first line of output prints "Average score: " followed by an integer representing the average score.

The second line prints one of the following:

1. If the condition is satisfied, print "The student has passed".
2. Otherwise, the output prints "The student has failed".

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 50 60 70 80 90

Output: Average score: 70

The student has passed

Answer

```
// You are using Java
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read five space-separated integers
        int sum = 0;
        boolean validInput = true;

        for (int i = 0; i < 5; i++) {
            if (scanner.hasNextInt()) {
                int mark = scanner.nextInt();

                // Check constraints
                if (mark < 1 || mark > 100) {
                    validInput = false;
                    break;
                }
            }
        }

        // Calculate average
        if (validInput) {
            double average = (double) sum / 5;
            System.out.println("Average score: " + average);
        } else {
            System.out.println("The student has failed");
        }
    }
}
```

```
        sum += mark;
    } else {
        validInput = false;
        break;
    }
}

if (!validInput) {
    System.out.println("Invalid input. Please enter five integers between 1 and
100.");
    return;
}

// Calculate average
int average = sum / 5;

// Output
System.out.println("Average score: " + average);

if (average >= 50) {
    System.out.println("The student has passed");
} else {
    System.out.println("The student has failed");
}

scanner.close();
}
```

Status : Correct

Marks : 10/10