



# Solution Review: Calculate Overall Percentage of Student's Mark

Let's go over the solution review of the challenge given in the previous lesson.

We'll cover the following



- Solution
- Explanation
  - struct Student
  - calculate\_percentage

## Solution #

Press the **RUN** button and see the output!

```
1  #include <iostream>
2
3  using namespace std;
4
5  // Student structure
6  struct Student {
7      // Stores the name of Student
8      string name;
9      // Stores the marks of student in 4 subjects
10     double marks[4];
11 };
12
13 // calculate_percentage function
14 double calculate_percentage(struct Student s) {
15     // Initialize variables
16     double total = 0, percentage = 0;
17     // for loop to traverse marks of Student
```



```

17 // for loop to traverse marks of student
18 for (int i = 0; i < 4; i++) {
19     // Add marks of Student in total
20     total = total + s.marks[i];
21 }
22 // Calculate percentage
23 percentage = (total / 400) * 100;
24 // Return percentage of Student
25 return percentage;
26 }
27
28 // print_Student function

```



## Explanation#

### struct Student#

We define the structure `Student` on **Line No. 6** that stores the `names` and `marks` of a student in 4 subjects.

**Line No. 8:** `name` stores the name of a student.

**Line No. 10:** `marks` is an array of type `double` whose size is **4**. It stores the marks of a student in 4 subjects.

### calculate\_percentage #

The `calculate_percentage` function takes the structure variable of type `Student` in its input parameters. It returns the value of type `double` in its output.

We can calculate the percentage by dividing the sum of all marks obtained with total marks and multiplying by 100. As there are four subjects, initialize `i` from 0 to 3, traverse the marks, and add their sum to `total`. Calculate the percentage by dividing the `total` by **400** and multiplying it by **100**. In

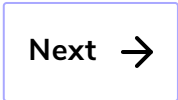
the end, we return `percentage` to the calling point.



Let’s solve a slightly more difficult challenge in the upcoming lesson.



Challenge 2: Calculate Overall Percent...



Challenge 3: Account Number of Cust...

☒ Mark as Completed

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