

Activity No. <4.1>

<Switch Case >

Course Code: CPE007	Program: Computer Engineering
Course Title: Switch Case	Date Performed: 9/10/25
Section: CPE11S1	Date Submitted: 9/10/25
Name(s): Will Stuart D. Ponce Jr.	Instructor: Engr. Jimlord Quejado

6. Output

Code:

```
main.cpp [ ] Share Run Output
1 #include <iostream>
2 #include <iomanip>
3
4 int main() {
5     int physics, biology, math;
6
7     // Prompt user to enter marks for three subjects
8     std::cout << "Physics      : ";
9     std::cin >> physics;
10    std::cout << "Biology      : ";
11    std::cin >> biology;
12    std::cout << "Math         : ";
13    std::cin >> math;
14    std::cout << "             " << std::endl;
15
16    // Calculate total marks and percentage
17    int total_marks = physics + biology + math;
18    double percentage = (static_cast<double>(total_marks) / 300.0) * 100.0;
19
20    // Display the average
21    std::cout << std::fixed << std::setprecision(2);
22    std::cout << "Average is : " << percentage << std::endl;
23
24    // Use a switch statement to determine the grade
25    int grade_level = static_cast<int>(percentage / 10);
26
27    std::cout << "Grade Level: ";
28    switch (grade_level) {
29        case 10:
30        case 9:
31            std::cout << "A" << std::endl;
32            break;
33        case 8:
34            std::cout << "B" << std::endl;
35            break;
36        case 7:
37        case 6:
38            std::cout << "C" << std::endl;
39            break;
40        case 5:
41            std::cout << "D" << std::endl;
42            break;
43        default:
44            std::cout << "F" << std::endl;
45    }
46}
```

The output window shows the following results:
Physics : 90
Biology : 90
Math : 80
Average is : 86.67
Grade Level: B
--- Code Execution Successful ---

Pseudo Code:

START

DECLARE three variables for marks: physics_marks, biology_marks, and math_marks.

PROMPT the user to enter marks for each subject.

READ the marks into the respective variables.

CALCULATE the total_marks by summing the three subject marks.

CALCULATE the percentage by dividing total_marks by the maximum possible total (300) and multiplying by 100.

PRINT the average percentage.

CONVERT the percentage to an integer group by dividing by 10.

SWITCH on the percentage_group:

IF percentage_group is 10 or 9: PRINT "Grade A".

IF percentage_group is 8: PRINT "Grade B".

IF percentage_group is 7: PRINT "Grade C".

IF percentage_group is 6: PRINT "Grade D".

IF percentage_group is 5 or 4: PRINT "Grade E".

DEFAULT (any other case): PRINT "Grade F".

END

7. Supplementary Activity

8. Conclusion I learn the simple percentage of the coding but im c++ is not compatible in my pc that's why I use this programiz

9. Assessment Rubric