

Activity No. <n>

<Replace with Title>

Course Code: CPE008

Program: Computer Engineering

Course Title: PROGRAMMING LOGIC AND DESIGN

Date Performed:09/09/25

Section: CPE11S1

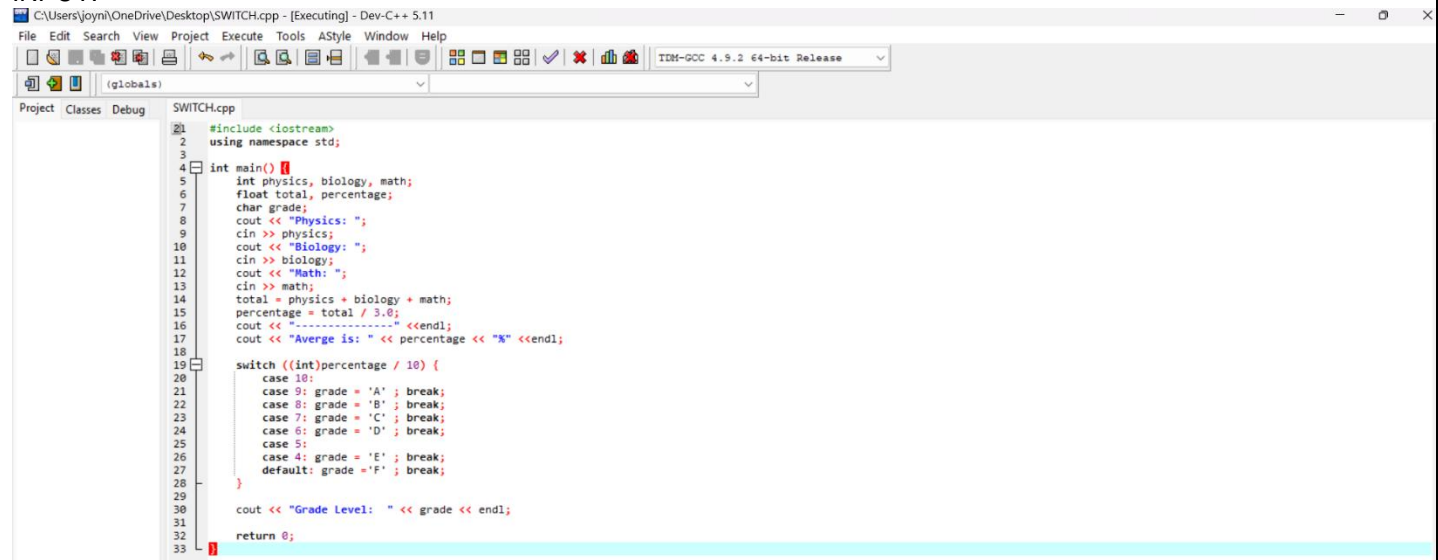
Date Submitted:09/11/25

Name(s): Cenndy M. Nieleo

Instructor: Engr. Jimlord Quejado

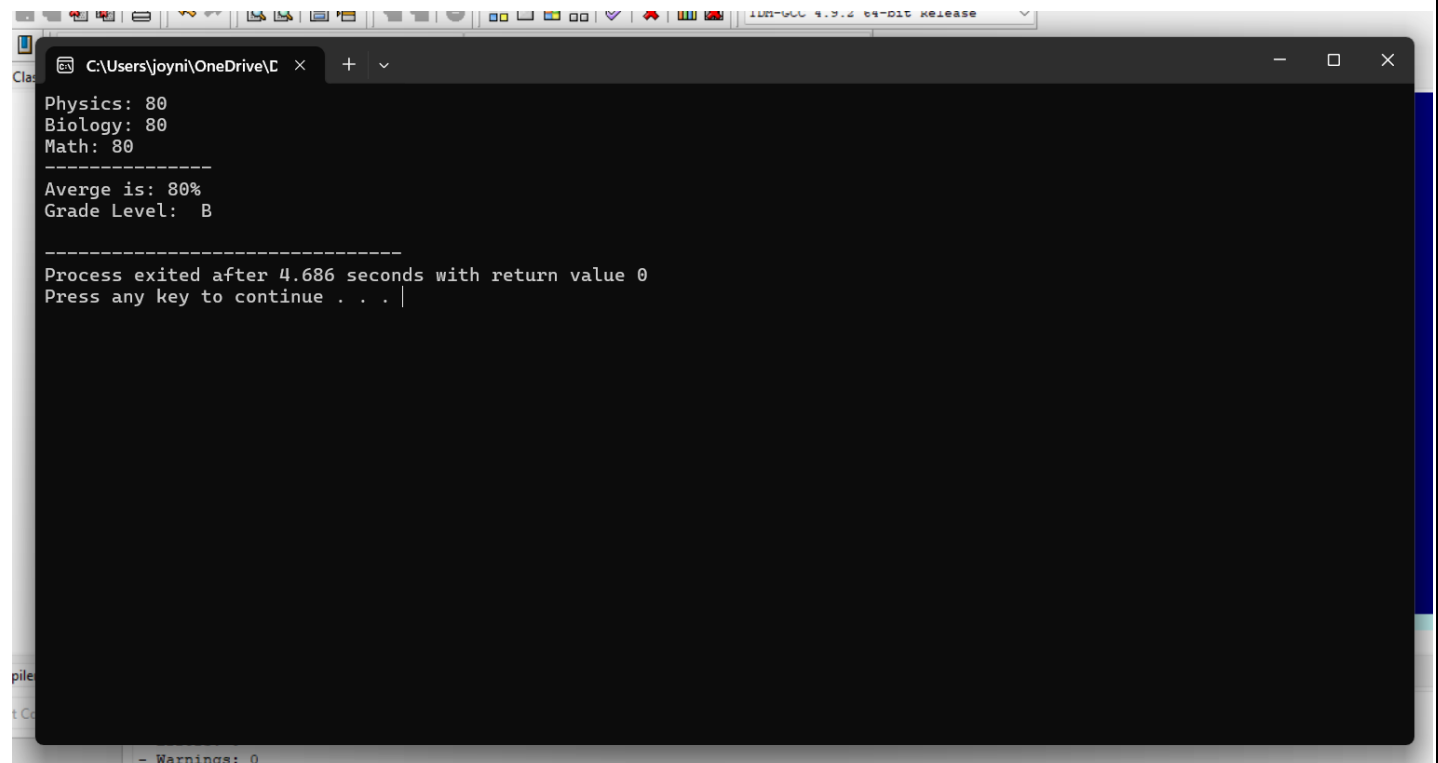
6. Output:

INPUT:



```
1 #include <iostream>
2 using namespace std;
3
4 int main()
5 {
6     int physics, biology, math;
7     float total, percentage;
8     char grade;
9     cout << "Physics: ";
10    cin >> physics;
11    cout << "Biology: ";
12    cin >> biology;
13    cout << "Math: ";
14    cin >> math;
15    total = physics + biology + math;
16    percentage = total / 3.0;
17    cout << "-----" << endl;
18    cout << "Averge is: " << percentage << "%" << endl;
19
20    switch ((int)percentage / 10) {
21        case 10:
22            grade = 'A'; break;
23        case 9: grade = 'B'; break;
24        case 8: grade = 'C'; break;
25        case 7: grade = 'D'; break;
26        case 6: grade = 'E'; break;
27        case 5: grade = 'F'; break;
28        default: grade = 'F'; break;
29    }
30
31    cout << "Grade Level: " << grade << endl;
32    return 0;
33 }
```

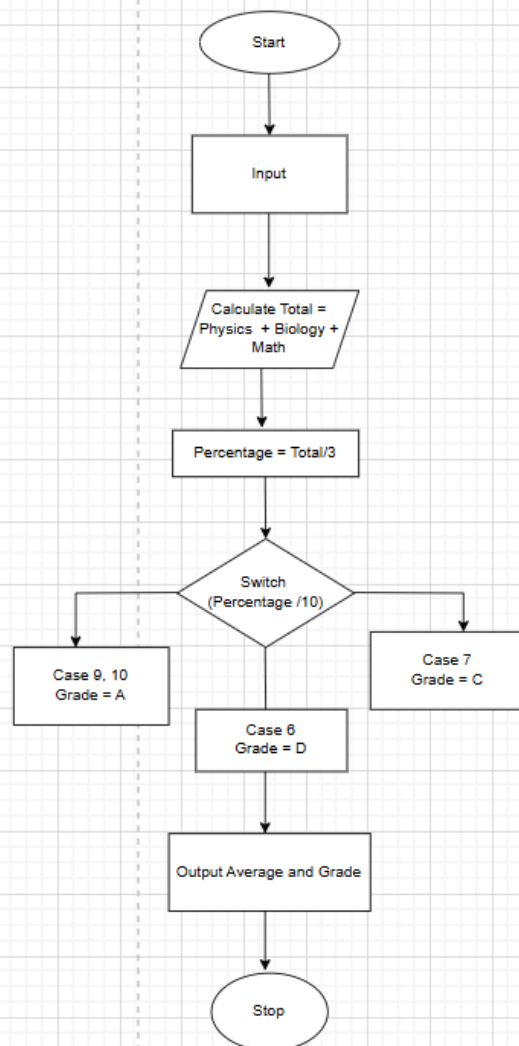
OUTPUT:



```
Physics: 80
Biology: 80
Math: 80
-----
Averge is: 80%
Grade Level: B

-----
Process exited after 4.686 seconds with return value 0
Press any key to continue . . . |
```

FLOWCHART:



PSEUDOCODE:

START

INPUT physics, biology, math

*Float total, percentage;
Char grade;*

```
cout << "Physics: "  
cin >> physics  
cout << "Biology: "  
cin >> biology  
cin << "Math"  
cout >> math
```

SWITCH (Percentage / 10)

```
case 10:
case 9: grade = 'A';break
case 8: grade = 'B':break
case 7: grade = 'C': break
case 6 grade = 'D': break
case 5 grade =
case 4 grade = 'E':break
default: grade ='F': break
```

END SWITCH

PRINT "Average Percentage =", Percentage

PRINT "Grade =", Grade

END

7. Supplementary Activity

8. Conclusion

I have learned a lot of this topic Array is a collection of the same data type, and accessed a using single name with index we discuss the parts of array and the elements and switch case then how it going to swap. Arrays are fixed in size and written loops check the element one by one to print a value or perform a calculation and you can also find the minimum and maximum value or calculating a sum or average and the bubble Sort have an ability to swap .Learning a Arrays can help you to understanding and used a data structure in programming We have a activity which is we input a bubble sort it's challenge and confusing to understand the bubble sort. You need to focused and to learn about Arrays but not only in arrays you need to learn and know the programming and you can explore the other access about programing so you have an idea.

9. Assessment Rubric