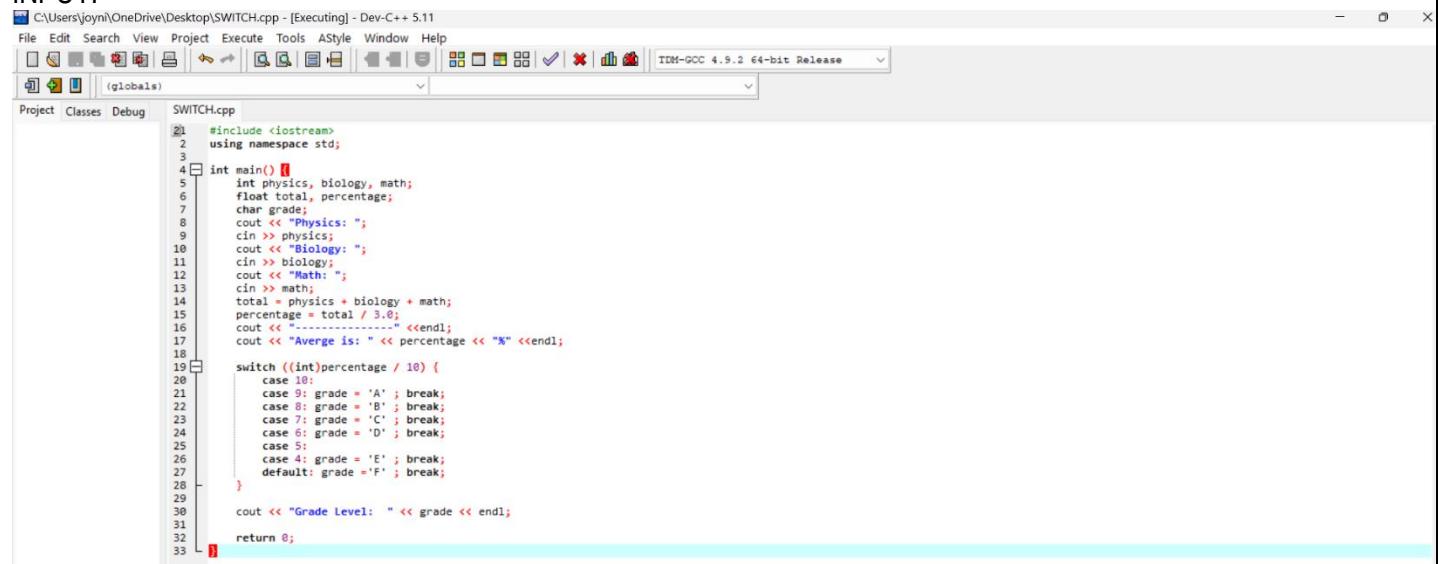
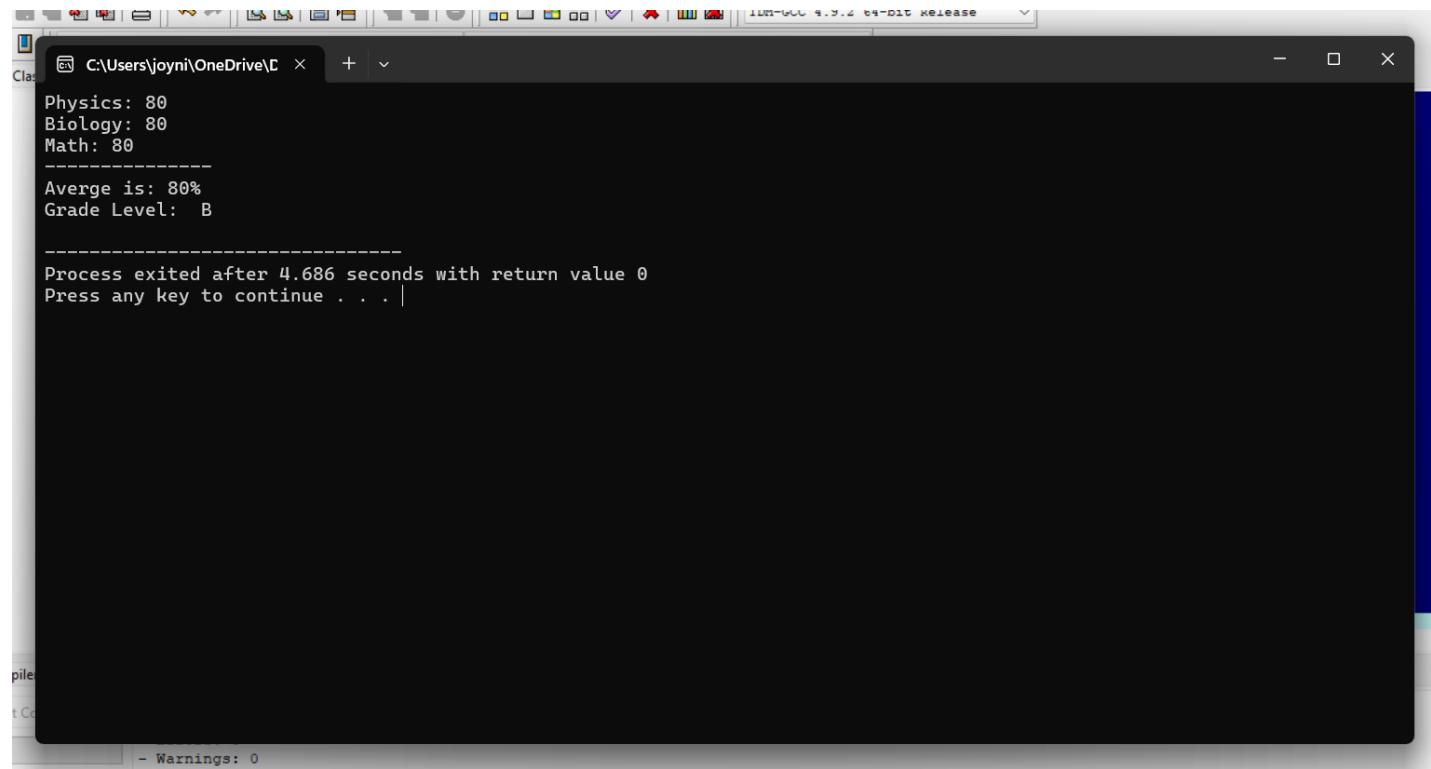


**Activity No. <n>****<Replace with Title>****Course Code:** CPE008**Program:** Computer Engineering**Course Title:** PROGRAMMING LOGIC AND DESIGN**Date Performed:** 09/09/25**Section:** CPE11S1**Date Submitted:** 09/11/25**Name(s):** Cenndy M. Nieles**Instructor:** Engr. Jimlord Quejado**6. Output:****INPUT:**

The screenshot shows the Dev-C++ IDE interface with the file `SWITCH.cpp` open. The code implements a program to calculate the average of three subjects (Physics, Biology, and Math) and determine the grade level based on the average percentage. The code uses `#include <iostream>`, `using namespace std;`, and a `switch` statement for grading.

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

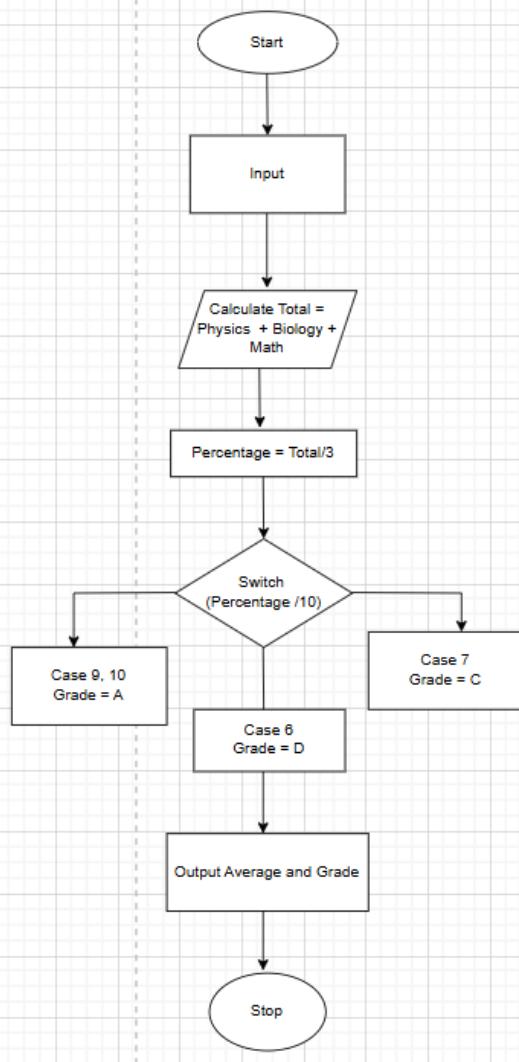
**OUTPUT:**

The screenshot shows the terminal window of the Dev-C++ IDE displaying the execution output of the `SWITCH.cpp` program. The program prompts for three subject scores (Physics, Biology, and Math), calculates the average, and prints the average percentage and grade level. The output shows an average of 80% and a grade level of B.

```
C:\Users\joyni\OneDrive\Documents\Dev-C++\Projects\SWITCH\Debug>
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
cout << "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