Activity No. 4.1	
SWITCH CASE	
Course Code: CPE 007	**Program:** Computer Engineer
Course Title: Programming Logic and Design	**Date Performed:** 9/9/2025
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6. Output

Coding and Output :

```cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int physics;
6      int biology;
7      int math;
8      float average;
9      int choice;
10
11     cout << "Enter Physics Mark : ";
12     cin >> physics;
13     cout << "\nEnter Biology Mark : ";
14     cin >> biology;
15     cout << "\nEnter Math Mark : ";
16     cin >> math;
17     cout << "\n-------------------------------\n";
18
19     average = (physics + biology + math) /3 ;
20     cout << "Physics : " << physics;
21     cout << "\nBiology : " << biology;
22     cout << "\nMath : " << math;
23     cout << "\n-------------------------------\n";
24     cout << "Average : " << average <<"\n";
25
```

```
Output
Enter Physics Mark : 90

Enter Biology Mark : 87

Enter Math Mark : 79

-------------------------------
Physics : 90
Biology : 87
Math : 79
-------------------------------
Average : 85
Grade : B

=== Code Execution Successful ===
```

```cpp
25
26     if (average >= 90)
27     choice = 1;
28     else if (average >= 80)
29     choice = 2;
30     else if (average >= 70)
31     choice = 3;
32     else if (average >= 60)
33     choice = 4;
34     else if (average >= 50)
35     choice = 5;
36     else
37     choice = 6;
38
39     switch (choice){
40         case 1:
41         cout << "Grade : A\n";
42         break;
43
44         case 2:
45         cout << "Grade : B\n";
46         break;
47
48         case 3:
49         cout <<"Grade : C\n";
```

```
Output
Enter Physics Mark : 90

Enter Biology Mark : 87

Enter Math Mark : 79

-------------------------------
Physics : 90
Biology : 87
Math : 79
-------------------------------
Average : 85
Grade : B

=== Code Execution Successful ===
```

```cpp
44        case 2:
45        cout << "Grade : B\n";
46        break;
47
48        case 3:
49        cout <<"Grade : C\n";
50        break;
51
52        case 4:
53        cout <<"Grade : D\n";
54        break;
55
56        case 5:
57        cout <<"Grade : E\n";
58        break;
59
60        case 6:
61        cout <<"Grade : F\n";
62        break;
63     }
64
65
66
67     return 0;
68 }
```

Output:
```
Enter Physics Mark : 90

Enter Biology Mark : 87

Enter Math Mark : 79

--------------------------------
Physics : 90
Biology : 87
Math : 79
--------------------------------

Average : 85
Grade : B


=== Code Execution Successful ===
```

Pseudo Code :

Start
 Input Physics
 Input Biology
 Input Math

Compute Average = (Physics + Biology + Math) /3

If average >= 90 then choice = 1
 Else if average >= 80 then choice = 2
 Else if average >= 70 then choice = 3
 Else if average >= 60 then choice = 4
 Else if average >= 50 then choice = 5
 Else thenchoice = 6

Display Physics
Display Biology
Display Math
Display Average

Switch (Choice)
 Case 1: Display "Grade : A"
 Case 2: Display "Grade : B"
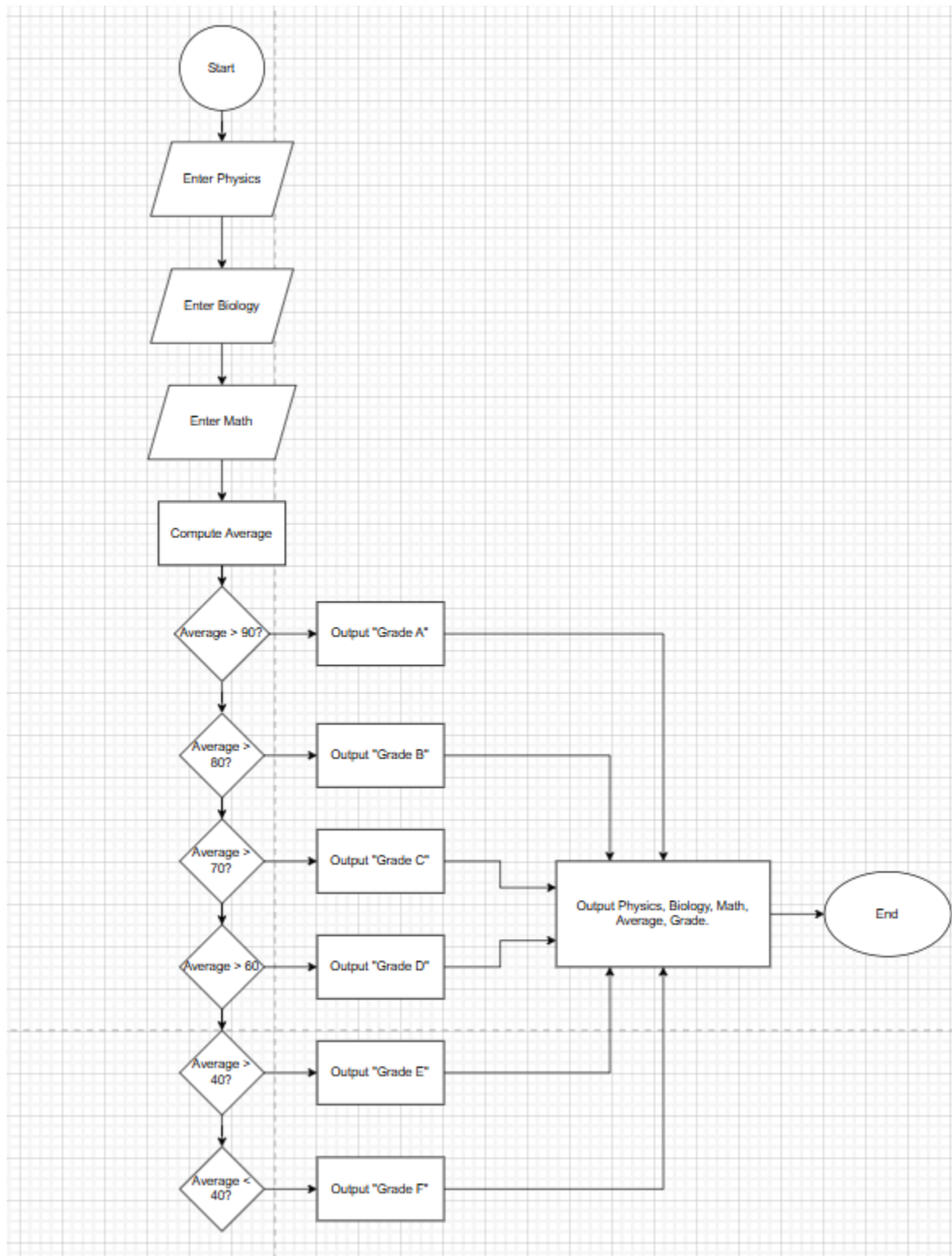 **Case 3: Display "Grade : C"**
 Case 4: Display "Grade : D"
 Case 5: Display "Grade : E"
 Case 6: Display "Grade : F"
 End Switch
End

Flowchart :

```
                          ┌─────────┐
                          │  Start  │
                          └────┬────┘
                               │
                       ┌───────▼────────┐
                       /  Enter Physics /
                       └───────┬────────┘
                               │
                       ┌───────▼────────┐
                       /  Enter Biology /
                       └───────┬────────┘
                               │
                       ┌───────▼────────┐
                       /   Enter Math   /
                       └───────┬────────┘
                               │
                       ┌───────▼────────┐
                       │ Compute Average│
                       └───────┬────────┘
                               │
                          ◇ Average > 90? ◇ ──► Output "Grade A"
                               │
                          ◇ Average > 80? ◇ ──► Output "Grade B"
                               │
                          ◇ Average > 70? ◇ ──► Output "Grade C"
                               │
                          ◇ Average > 60? ◇ ──► Output "Grade D"
                               │
                          ◇ Average > 40? ◇ ──► Output "Grade E"
                               │
                          ◇ Average < 40? ◇ ──► Output "Grade F"
```

Output Physics, Biology, Math, Average, Grade.

End

7. Supplementary Activity

8. Conclusion

I was able to review switch, flowcharting and pseudo code in this activity. Reviewing this again helped me further understand this topic better, this activity helped me to be more organized in coding, flowcharting and doing pseudo code, it might not be perfect yet but I can see from myself that I'm improving bit by bit.

9. Assessment Rubric

Rubric for SO 7 (9)

Criteria	Ratings						Pts
SO 7 PI 1 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	**6 pts** Excellent | Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently and applies knowledge learned into practice	**5 pts** Good | Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently	**4 pts** Satisfactory | Look beyond classroom requirements, showing interest in pursuing knowledge independently	**3 pts** Unsatisfactory | Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently	**2 pts** Poor | Relies on classroom instruction only	**1 pts** Very Poor | No initiative or interest in acquiring new knowledge	6 pts
SO 7 PI 2 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	**6 pts** Excellent | Completes an assigned task independently and practices continuous improvement	**5 pts** Good | Completes an assigned task without supervision or guidance	**4 pts** Satisfactory | Requires minimal guidance to complete an assigned task	**3 pts** Unsatisfactory | Requires detailed or step-by-step instructions to complete a task	**2 pts** Poor | Shows little interest to complete a task independently	**1 pts** Very Poor | No interest to complete a task independently	6 pts
SO 7 PI 3 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	**6 pts** Excellent | Synthesizes and integrates information from a variety of sources; formulates a clear and precise perspective; draws appropriate conclusions	**5 pts** Good | Evaluate information from a variety of sources; formulates a clear and precise perspective.	**4 pts** Satisfactory | Analyze information from a variety of sources; formulates a clear and precise perspective.	**3 pts** Unsatisfactory | Apply the gathered information to formulate the problem	**2 pts** Poor | Gather and summarized the information from a variety of sources but failed to formulate the problem	**1 pts** Very Poor | Gather information from a variety of sources	6 pts
SO 7 PI 4 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	**6 pts** Excellent | Ideas are combined in original and creative ways in line with the new and emerging technology trends to solve a problem or address an issue.	**5 pts** Good | Ideas are creative and adapt the new knowledge to solve a problem or address an issue	**4 pts** Satisfactory | Ideas are creative in solving a problem, or address an issue	**3 pts** Unsatisfactory | Shows some creative ways to solve the problem	**2 pts** Poor | Shows initiative and attempt to develop creative ideas to solve the problem	**1 pts** Very Poor | Ideas are copied or restated from the sources consulted	6 pts

Total Points: 24