

**Delta College**  
**CSP31A - C++ Programming I**  
**In-class Lab 05**

**Question 1**

The grade for a test is based on the actual score and is calculated as shown in the table below.

<b>Score</b>	<b>Grade</b>
[90,100]	A
[80,90)	B
[70,80)	C
[60,70)	D
Less than 60	F

Note that [90,100] means that score is  $\geq 90$  and  $\leq 100$  while [80,90) means that score  $\geq 80$  but  $< 90$  and so on.

Prompt user to enter a value for score from the keyboard. Then verify that score entered must be between 0 and 100 inclusive. If it is outside this range, display an Invalid score entered message. Otherwise, display the score and the grade for that score.

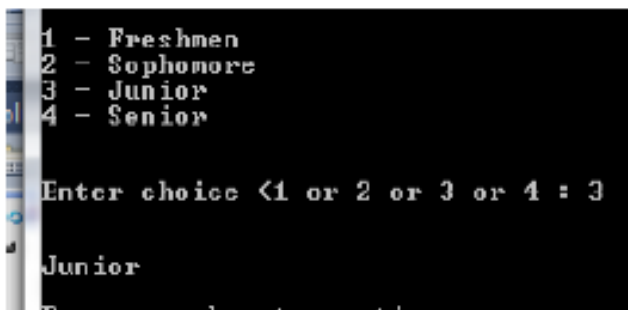
## Question 2

A program that displays student's status in a 4-year college and then user will enter a number for each selection. An if-else-if logic is then used to print the choice selected.

The program is shown below

```
8 int main()
9 {
10     char status;
11
12     cout << "\n1 - Freshmen";
13     cout << "\n2 - Sophomore";
14     cout << "\n3 - Junior";
15     cout << "\n4 - Senior\n\n";
16
17     cout << "\nEnter choice (1 or 2 or 3 or 4 : ";
18     cin >> status;
19
20     if (status == '1')
21         cout << "\n\nFreshmen";
22     else if (status == '2')
23         cout << "\n\nSophomore";
24     else if (status == '3')
25         cout << "\n\nJunior";
26     else if (status == '4')
27         cout << "\n\nSenior";
28     else
29         cout << "Invalid choice ";
30
31     return 0;
32 }
```

A sample output for above code is shown below:

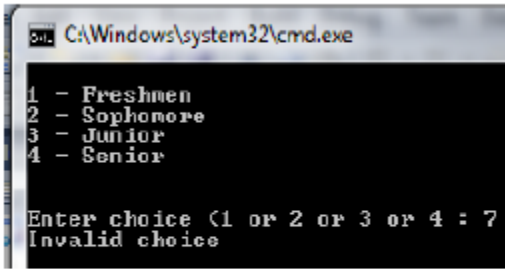


```
1 - Freshmen
2 - Sophomore
3 - Junior
4 - Senior

Enter choice <1 or 2 or 3 or 4 : 3

Junior
```

Here is another one



```
C:\Windows\system32\cmd.exe
1 - Freshmen
2 - Sophomore
3 - Junior
4 - Senior

Enter choice (1 or 2 or 3 or 4) : 7
Invalid choice
```

Your **task** here is to convert the testing from using the if-else-if structure to using a **switch** structure. In addition, change the data type of variable **status** from **char** to **int**

**Submission in Etudes.**