

Lab task no.1

Draw a program for making grades of the class students.

```
#include <iostream>
```

```
Using namespace std;
```

```
Int main()
```

```
{
```

```
    // Declare a variable to store the student's score
```

```
    Int score;
```

```
    // Prompt the user to enter the score
```

```
    Cout << "Enter your score: ";
```

```
    Cin >> score;
```

```
// Check if the score is valid (between 0 and 100)
If (score >= 0 && score <= 100)
{
    // Assign a grade based on the predefined criteria using
logical operators
    If (score >= 90)
    {
        Cout << "Your grade is A";
    }
    Else if (score >= 75)
    {
        Cout << "Your grade is B";
    }
    Else if (score >= 60)
    {
        Cout << "Your grade is C";
    }
    Else if (score >= 45)
    {
        Cout << "Your grade is D";
    }
}
```

```
    }  
    Else  
    {  
        Cout << "Your grade is F";  
    }  
}  
Else  
{  
    // Display an error message if the score is invalid  
    Cout << "Invalid score. Please enter a number between 0  
and 100.\n";  
}  
    return 0;  
}
```



```
Enter your score: 45
```

```
Your grade is D
```

```
...Program finished with exit code 0
```

```
Press ENTER to exit console. 
```

Task no.2

```
#include <iostream>
```

```
Using namespace std;
```

```
Int main()
```

```
{
```

```
Int n;
```

```
Cout << "Enter an integer: ";
```

```
Cin >> n;
```

```
If (n % 2 == 0 && n % 5 == 0)
```

```
{
```

```
    Cout << "your integer is both even and divisible by 5";
```

```
}
```

```
Else
```

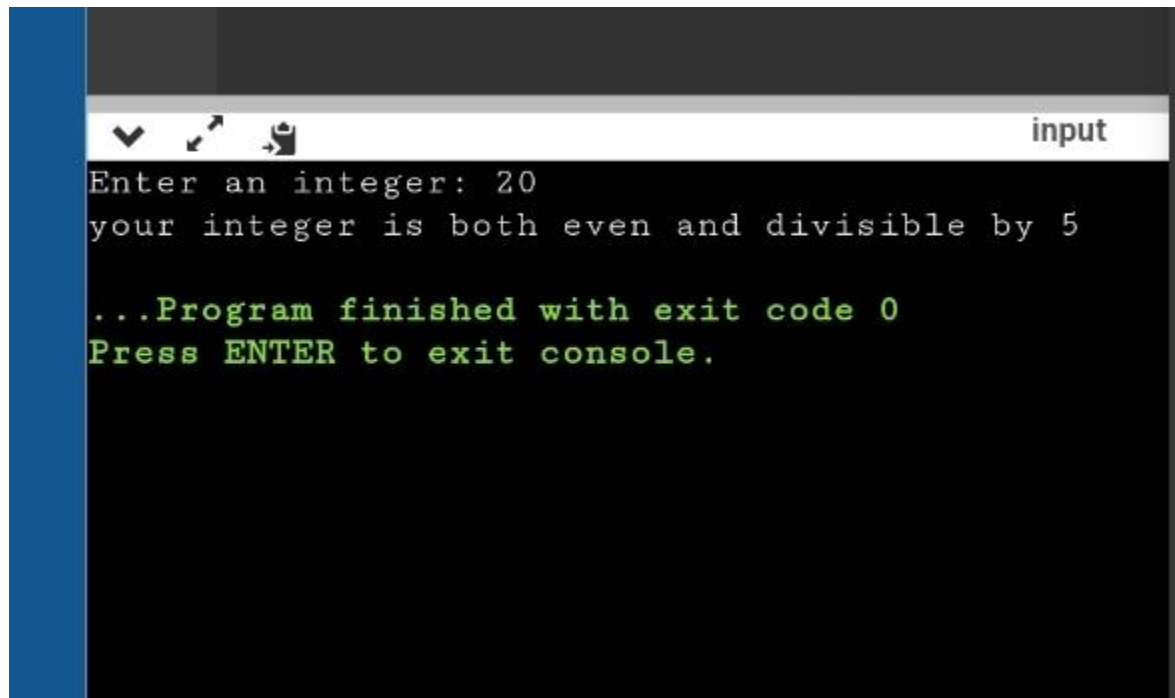
```
{
```

```
    Cout << "your integer is not both even and divisible by 5";
```

```
}
```

```
Return 0;
```

```
}
```

A screenshot of a terminal window with a dark background and a light blue title bar. The title bar contains three icons (a checkmark, a magnifying glass, and a document) and the text 'input'. The terminal displays the following text: 'Enter an integer: 20', 'your integer is both even and divisible by 5', '...Program finished with exit code 0', and 'Press ENTER to exit console.' in a green monospace font.

```
input
Enter an integer: 20
your integer is both even and divisible by 5

...Program finished with exit code 0
Press ENTER to exit console.
```

Task no.3

```
#include <iostream>
using namespace std;

int main()
{
    float gpa;
    float attendance;
```

```
cout << "Enter your GPA: ";
```

```
cin >> gpa;
```

```
cout << "Enter your attendance percentage: ";
```

```
cin >> attendance;
```

```
if (gpa >= 3.5 && attendance >= 80)
```

```
{
```

```
    cout << "Congratulations! You are eligible for a scholarship.";
```

```
}
```

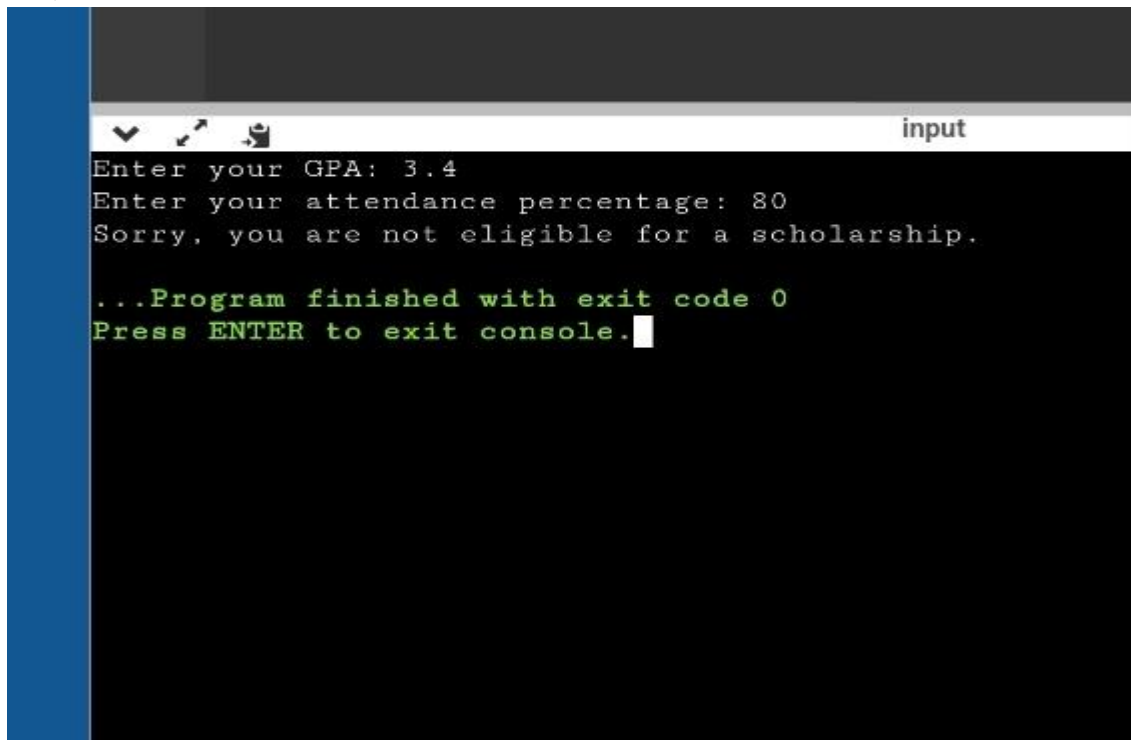
```
else
```

```
{
```

```
    cout << "Sorry, you are not eligible for a scholarship.";
```

```
}
```

```
return 0;
```

A screenshot of a console window with a dark background and light-colored text. The window has a title bar at the top with the word "input" on the right. Below the title bar, there are three small icons: a checkmark, a magnifying glass, and a trash can. The main area of the console displays the following text: "Enter your GPA: 3.4", "Enter your attendance percentage: 80", "Sorry, you are not eligible for a scholarship.", "...Program finished with exit code 0", and "Press ENTER to exit console." with a white cursor at the end of the last line. A blue vertical bar is visible on the left side of the console window.

```
input
Enter your GPA: 3.4
Enter your attendance percentage: 80
Sorry, you are not eligible for a scholarship.
...Program finished with exit code 0
Press ENTER to exit console.
```

```
}
```

Task no.4

```
#include <iostream>
```

```
Using namespace std;
```

```
Int main()
```

```
{
```

```
    Char c;
```

```
    Cout << "Enter a character: ";
```

```
    Cin >> c;
```

```
    If (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u' ||
```

```
        C == 'A' || c == 'E' || c == 'I' || c == 'O' || c == 'U')
```

```
    {
```

```
        Cout << c << "is a vowel." << endl;
```

```
    }
```

```
    Else
```



```
{  
    Cout << c << " is a consonant." << endl;  
}
```

```
Return 0;
```

```
}
```



The screenshot shows a console window with a dark background. At the top, there are three small icons (a downward arrow, a magnifying glass, and a document) and the word "input" in a light gray font. The main text in the console is white and green. It starts with "Enter a character: a" followed by "is a vowel." on the next line. Below that, there is a blank line, then "Program finished with exit code 0" in green, and finally "Press ENTER to exit console." in green with a white cursor at the end.

```
input  
Enter a character: a  
is a vowel.  
  
Program finished with exit code 0  
Press ENTER to exit console.
```