

```
Algorithm: 1.Create marks and grade variable.  
//  
// 2.Take marks from the user.  
//  
// 3.Check if marks are between 0 and 100.  
//  
// 4.Assign grade using a ternary operator based on marks.  
//  
// 5.Display grade message using switch-case.  
//  
// 6.Check and display eligibility using if-else.  
//  
// 7.End.  
//  
#include <iostream>  
using namespace std;  
  
int main()  
{  
    int marks;  
    char grade;  
  
    cout << "Enter your marks (0 - 100): ";  
    cin >> marks;  
  
    if (marks >= 0 && marks <= 100)  
    {  
        cout << "Valid marks." << endl;  
    }  
    else  
    {  
        cout << "Invalid marks entered." << endl;  
    }  
  
    grade = (marks >= 90 && marks <= 100) ? 'A' : (marks >= 80 && marks <= 89) ? 'B'  
            : (marks >= 70 && marks <= 79) ? 'C'  
            : (marks >= 60 && marks <= 69) ? 'D'  
            : 'F';  
  
    switch (grade)  
    {  
        case 'A':  
            cout << "Your grade is A.Excellent work!" << endl;  
            break;  
        case 'B':  
            cout << "Your grade is B.Well done!" << endl;  
            break;  
        case 'C':  
            cout << "Your grade is C.Good job." << endl;  
            break;  
        case 'D':  
            cout << "Your grade is D.You Passed but you could do better." << endl;  
            break;  
        case 'F':  
            cout << "Your grade is F.Sorry, you failed." << endl;  
            break;  
        default:  
            cout << "Invalid data entered." << endl;  
    }  
  
    if (grade == 'A' || grade == 'B' || grade == 'C' || grade == 'D')  
    {  
        cout << "You are eligible for the next level." << endl;  
    }  
    else  
    {  
        cout << "You are not eligible for the next level." << endl;  
    }  
  
    return 0;  
}
```

