



GHANA COMMUNICATION  
TECHNOLOGY UNIVERSITY

INSTITUTE OF CONTINUING  
AND DISTANCE EDUCATION (ICDE)

COURSE CODE	CICS 112
COURSE TITLE	Programming with C++
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Write a program to find and print the grade of a student by using the switch statement in C++.

```
#include <iostream>
```

```
using std::cin;  
using std::cout;  
using std::string;
```

```
int getPosition(double gpa)  
{
```

```
    if (gpa >= 3.6)  
        return 1;
```

```
    if (gpa >= 3.0)  
        return 2;
```

```
    if (gpa >= 2.5)  
        return 3;
```

```
    if (gpa >= 2.0)  
        return 4;
```

```
    if (gpa >= 1.0)  
        return 5;
```

```
    return 6;  
};
```

```
string getGrade(int position)  
{
```

```
    switch (position)  
    {  
    case 1:  
        return "First Class";
```

```
    case 2:  
        return "Second Class Upper";
```

```
case 3:  
    return "Second Class Lower";
```

```
case 4:  
    return "Third Class";
```

```
case 5:  
    return "Pass";
```

```
case 6:  
    return "Fail";
```

```
default:  
    return "Invalid gpa";  
}
```

```
};
```

```
int main()  
{
```

```
    double gpa;
```

```
    cout << "\n\n===== STUDENT GPA GRADING SYSTEM  
===== \n\n";
```

```
    cout << "Please enter your gpa: ";  
    cin >> gpa;
```

```
    if (gpa < 0 || gpa > 4)  
    {
```

```
        cout << "\n\nInvalid gpa! Should be between 0.0 and 4.0\n\n";
```

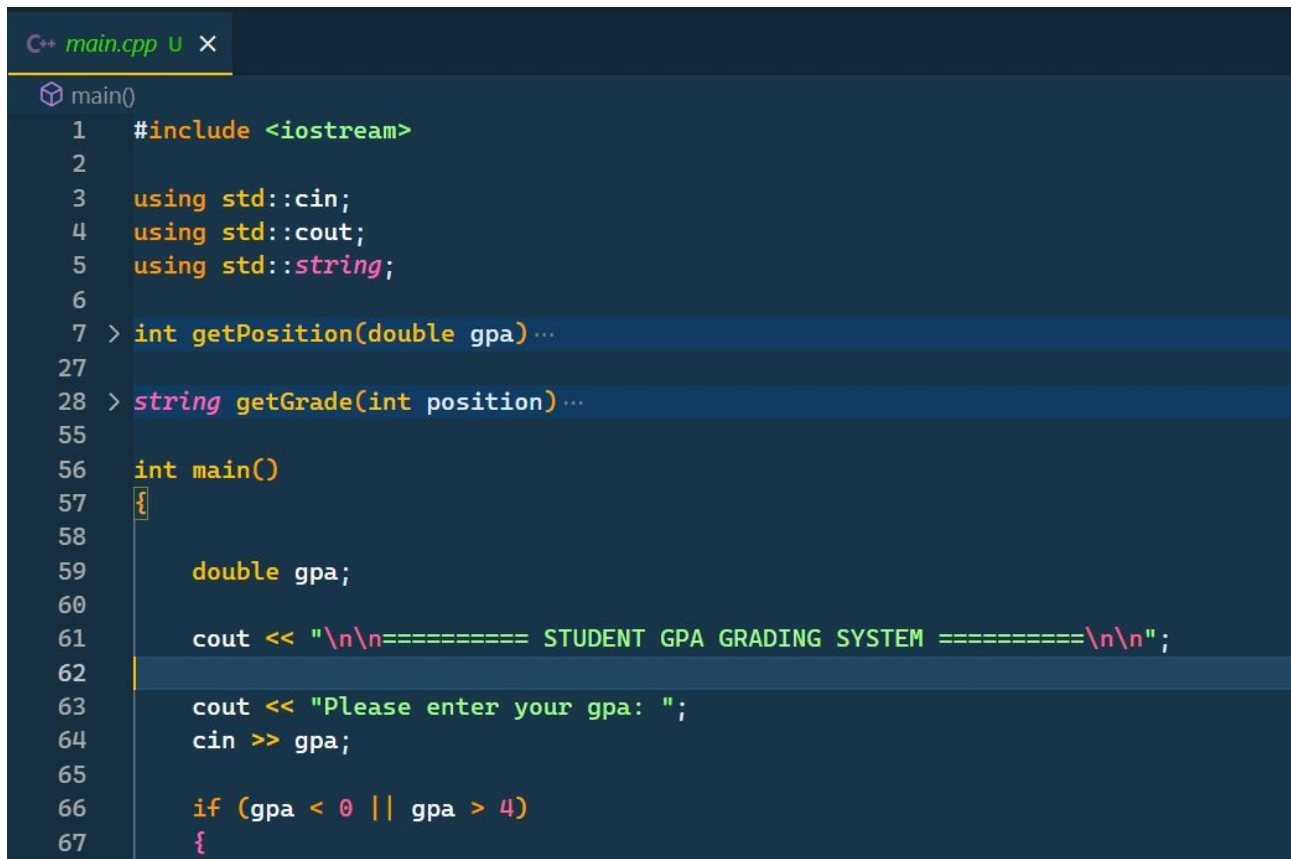
```
        return 1;  
    };
```

```
    int position = getPosition(gpa);  
    string grade = getGrade(position);
```

```
cout << "\n\nYour grade is: " << grade << "\n\n";
```

```
return 0;
```

```
}
```



The screenshot shows a C++ code editor with a file named `main.cpp`. The code defines a `main()` function that includes `<iostream>` and uses `std::cin`, `std::cout`, and `std::string`. It declares a `double gpa` variable and prints a title: `\n\n===== STUDENT GPA GRADING SYSTEM =====\n\n`. It then prompts the user to enter their GPA: `Please enter your gpa:`  and reads the input into `gpa`. A conditional statement `if (gpa < 0 || gpa > 4)` is shown, but its body is empty in the visible portion of the code.

```
C++ main.cpp U x
main()
1  #include <iostream>
2
3  using std::cin;
4  using std::cout;
5  using std::string;
6
7  > int getPosition(double gpa) ...
27
28 > string getGrade(int position) ...
55
56 int main()
57 {
58
59     double gpa;
60
61     cout << "\n\n===== STUDENT GPA GRADING SYSTEM =====\n\n";
62
63     cout << "Please enter your gpa: ";
64     cin >> gpa;
65
66     if (gpa < 0 || gpa > 4)
67     {
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

SPELL CHECKER

deLanyo@thedeLanyo MINGW64 /d/dev/gctu\_projects/second\_sem/cpp/gpa (main)

● \$ ./main

===== STUDENT GPA GRADING SYSTEM =====

Please enter your gpa: 3.8

Your grade is: First Class

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