

# C++ Programming

## from Beginner to Expert

### Chapter 1 : Introduction to Computers and Programming

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# a simple C++ code



```
1 // Fig. 6.4: GradeBook.cpp
2 // Member-function definitions for class GradeBook that
3 // determines the maximum of three grades.
4 #include <iostream>
5 using namespace std;
6 #include "GradeBook.h" // include definition of class GradeBook
7 // constructor initializes courseName with string supplied as argument;
8 // initializes maximumGrade to 0
9 GradeBook::GradeBook( string name )
10     : maximumGrade( 0 ) // this value will be replaced by the maximum grade
11 {
12     setCourseName( name ); // validate and store courseName
13 } // end GradeBook constructor
14 // function to set the course name; limits name to 25 or fewer characters
15 void GradeBook::setCourseName( string name )
16 {
17     if ( name.size() <= 25 ) // if name has 25 or fewer characters
18         courseName = name; // store the course name in the object
19     else // if name is longer than 25 characters
20     { // set courseName to first 25 characters of parameter name
```

# a simple C++ code



```
21     courseName = name.substr( 0, 25 ); // select first 25 characters
22     cerr << "Name \"" << name << "\" exceeds maximum length (25).\n"
23         << "Limiting courseName to first 25 characters.\n" << endl;
24 } // end if...else
25 } // end function setCourseName
26 // function to retrieve the course name
27 string GradeBook::getCourseName() const
28 {
29     return courseName;
30 } // end function getCourseName
```