Computing 2 - Labs

Lab 1: Modifying Class `GradeBook`

Modify class `GradeBook` as follows:

1. Include a second `string` data member that represents the course instructor's name (`instructor_name_`).
2. Provide a *set* function to change the instructor's name and a *get* function to retrieve it.
3. Modify function `displayMessage` to output the welcome message and course name, then the string `"This course is presented by: "` followed by the instructor's name.
4. Use your modified class in a test program that demonstrates the class's new capabilities according to the screen shot provided at the bottom.

Below you find the code which you have to modify. Define all of your member functions outside of the class definition.

```cpp
// GradeBook.cpp
// Definitions for class GradeBook incl. driver.
#include <iostream>
using namespace std;

// GradeBook class definition
class GradeBook
{
public:

    // function to set the course name
    void setCourseName( string name );

    // function to retrieve the course name
    string getCourseName() const;

    // display a welcome message and the instructor's name
    void displayMessage() const;

private:
    string course_name_; // course name for this GradeBook
}; // end class GradeBook


// function to set the course name
void GradeBook::setCourseName( string name )
{
    course_name_ = name; // store the course name
} // end function setCourseName

// function to retrieve the course name
string GradeBook::getCourseName() const
{
    return course_name_;
} // end function getCourseName

// display a welcome message and the instructor's name
void GradeBook::displayMessage() const
{
    // display a welcome message containing the course name
    cout << "Welcome to the grade book for " << getCourseName() << "!" << endl;

} // end function displayMessage
```

```cpp
// function main begins program execution
int main()
{
    // create a GradeBook object; pass a course name and instructor name
    GradeBook grade_book;

    grade_book.setCourseName( "CS101 Introduction to C++ Programming" );

    // display welcome message
    grade_book.displayMessage();

    grade_book.setCourseName( "C++ Programming" );
    // display welcome message
    grade_book.displayMessage();
} // end main
```

The output of this program is:

```
Welcome to the grade book for CS101 Introduction to C++ Programming!
Welcome to the grade book for C++ Programming!
```

The output of the modified program should be:

```
Welcome to the grade book for !
This course is presented by:

Welcome to the grade book for Computing 2 - Programming Labs!
This course is presented by: Norbert Strobel

Welcome to the grade book for Informatik 2 - Uebungen!
This course is presented by: Florian Spiess
```