Problem Sheet 6

October 3, 2024

Lecturer: Saurav Samantaray

In this problem sheet, you are required to develop classes to describe the students at a university.

Q. 1 Write a class students at the university that has the following public members:

- a string for the student's name;
- a double precision floating point variable that stores the library fines owed by the student;
- a double precision floating point variable that stores the tuition fees owed by the student;
- a method that returns the total money owed by the student, that is, the sum of the library fines and tuition fees associated with a given student;
- a few constructors that take different arguments.

Q. 2 The library fines owed by the students must be a nonnegative number. Enforce this by making a student's library fines a private member of the class. Write one method that allows the user to set this variable only to nonnegative values, and another method that can be used to access this private variable. Both methods should be public members of the class.

Remark 0.1. • Write a single main function to show the usage of the above designed classes.

- Each class should be declared in a header file with ".hpp" extension, of its own.

- Each class should be defined in a source file with ".cpp" extension, of its won.

- Finally a single "makefile" should be written to compile all the codes and create an executable.