
Lab No. 1- Overview**Date: 03 - 07/03/2007**

We would like to implement a class student. This class has the following attributes:

- **Id:** student identification number
- **Name:** student name
- **MidExam:** grade of student in the midterm exam (less or equal 40).
- **FinalExam:** grade of student in the final exam (less or equal 60).

The class student has to implement the following methods:

- Empty constructor
- Constructor with parameters
- Setters and getters methods

Now, we will write the class Course that contains the following attributes:

- **NbStudents:** number of students registered in the course, initially equal to zero and maximum 50 students.
- **ArrStudents:** array containing the students registered in the current course

The course class, provides the following services:

- A constructor that initializes the number of students registered in the course to zero.
- **IsEmpty:** returns true if no student have been registered and false otherwise
- **IsFull:** returns true if you cannot add a new student and false otherwise
- **IsFounded:** accepts an identification number and returns the index if the student is already registered and -1 otherwise.
- **AddStudent:** accepts a student object and adds the new student to the course.
- **DelStudent:** accepts an identification number and deletes the corresponding student from the course.
- **DisplayStudents:** display identification numbers of all students registered in the course.
- **GetBestStudent:** returns the identification number of the best student (the student with the greatest GPA).
- **NumberBStudents:** returns the number of students with grade 'B' (i.e. with a GPA between 80 and 90)
- **Average:** returns the average of the GPAs of all the students with a grade different from 'F' (i.e. with a GPA above 60).

Write a main class to test the class course. The class main should implement the following menu:

Menu

- 1- Add new student
- 2- Delete student
- 3- Display students
- 4- Get best student
- 5- Number of B students
- 6- Average of grades for success students
- 7- Exit

Enter you choice:
