



Universitat
de les Illes Balears

21744 – Programming Projects Laboratory

Academic year 2016 – 2017

STUDENTS MARKS APPLICATION

OBJECTIVE:

The student must build an application to show that have acquired knowledge about C# language.

PROJECT REQUIREMENTS:

A system for manage students data and their qualifications.

Practice must be developed individually, and must be released before January 18th 2017 on CampusExtens. For extraordinary evaluation must be released before February 7th 2017.

Release must include:

1. Source code project.
2. A PDF documentation with the following chapters:
 - a. Front page, containing title of the project, author's name, subject and academic year.
 - b. Briefly user manual, the student must stand out extraordinary aspects.
 - c. Conclusions on most important aspects, explain how solved most difficult ones.

APPLICATION DETAILS:

A system for manage students data and their qualifications.

Classes Library

Create a Library containing all the base classes:

A student card is composed by:

- name
- surname
- birthdate (optional field)
- origin school (optional field)
- sex

For School objects it is only necessary school name and its town.

There will be subjects, composed by code, name and year, for example 20302 – Programació – 1st course.

A Degree is composed by a set of subjects, and has a code and name: GEIN – Computer Engineering.

A Mark is a relation between subject and student, and the qualification (0-10).

Main Application

Create an application that imports that library (not in runtime!!).

A good idea is to generate random data, but always use the same seed to generate the same data.

Create enough data to do the answer the following questions:

- Who is the student (or students) that has passed more subjects?
- Who is the student (or students) with more degrees? (must has passed all degree subjects)
- For each degree who has the best mean qualification? (must have finished the degree)
- For each degree compare mean qualifications by sex.
- What is the best degree qualification? Student that has got the best mean qualification in a degree.
- Display the 10% best students for each degree.
- Display the best mark for each subject (if nobody has passed the subject then shows it empty)