

## Homework Assignment #2

### Class Grade Calculator

A university department offers a research class, a literature class and a lab class.

- 1) The research class has 2 tests, research paper and a presentation
- 2) The literature class has 3 quizzes, 1 test and 1 final exam
- 3) The lab class has two tests, a project and a final exam

The grades of each class are computed in the following way:

- 1) Research class:  $[(\text{test1}+\text{test2})/2*0.3+\text{research paper}*0.5+\text{presentation}*0.2]*10$
- 2) Literature class:  $[(\text{quiz1}+\text{quiz2}+\text{quiz3})/3*0.4+\text{test}*0.1+\text{final exam}*0.5]*10$
- 3) Lab class:  $[(\text{test1}+\text{test2})/2*0.3+\text{project}*0.3+\text{final exam}*0.4]*10$

The score of a test, research paper, project, quiz and final exam is a positive double number less or equal to 10.

The score of each class is positive double number less or equal to 100

The grading scale is the following:

**A**=90-100, **B**=80-89, **C**=70-79, **D**=60-69, **F**=<60

You have to write a code of a program to compute the score and the grade of a class.

- 1) The user has to select the type of the class that he wants to compute the score and the grade.
- 2) Given the type of the class, the program will use the appropriate formula to compute the score.
- 3) The program checks that each entered score is a double number between 0 and 10 else it displays an error message to the user.
- 4) The program will evaluate the value of the grade and display the following messages in the following cases:
  - a) Case A,B: You are eligible for a financial aid
  - b) Case C,D: You are eligible for a partial financial aid
  - c) Case F: You failed the class and you are not eligible for a financial aid.

You have to use the following statements:

- 1) if statement
- 2) if, else statement
- 3) if , else if statement
- 4) switch statement