C project

Evaluation criteria

The project grade is composed of:

- The report grade
- The code source grade
- The defense grade

Report: 4 points

To explain the work carried out, a report of 10 pages (maximum) is to be submitted in **.pdf** format. It must:

- Be scientific: avoid long paragraphs.
    - Use enumerations for explaining steps and /or functionalities
    - Use illustrations (when possible): diagrams, figures, etc.

The report must contain:

- A cover page mentioning:
    - The name of the school and its logo;
    - The title of the project;
    - Members of the team that carried out the project;
    - The group name;
    - The school year.

- An introduction presenting the project and its main objectives.

- A functional presentation of the completed project: Functionalities offered to the user:
    - Name the functions realized among those proposed in the project.
    - List the new proposed functions in addition to what was asked (if any).

- A technical presentation of the project: Explaining how the program achieves the different proposed functionalities:
    - Description of the **main** implemented algorithms
    - Justification of the choice of data structures used.
    - Presentation of the (technical) difficulties encountered and the solutions provided.

- Results presentation:
    - Tests carried out and results obtained: present the user interface (illustrated by screenshots)
    - If possible: data allowing us to reproduce the tests quickly

- A conclusion: Lessons learned from the project:
    - Learning on the technical level
    - Learning about work organization and communication within the team
    - Learning about time management
    - etc...

Remember to include a table of contents and page numbering in the report.

Code: 12 points

The evaluation of the source code will be done on two levels:

Content:

- The program is modular:
    - Functions are used to distribute the different tasks logically and across different files to increase the readability and comprehensibility of the code.
- The chosen algorithms are "reasonably" efficient. They avoid unnecessary processing and variables.
- The code is robust against possible errors:
    - In particular, it provides for secure user input and prevents it from leading to execution errors.

Code clarity:

- Each code file (**.c and .h**) should have a global comment at the top of the file, with the name of the project, the authors, and the role of this file in the project.
- A comment should be present at the top of each function. It describes for each function:
    - Its role, the meaning of its parameters, the returned result (if there is none: explain why).
- Inside the functions, comments should **only** indicate the **main** steps of the algorithm and explain the tricky parts of the code.
- Functions and variables should be named consistently (either all in English or all in French).

Defense: 4 points

The project defense takes about **20 minutes** per team. Here are some elements of appreciation of the defense:

- Introduction: presentation of the project objectives
- Demonstration of the work done: Test scenarios covering all the performed functionalities.
- Quality of answers to questions
- Appropriation of the speaking time within the group.
- A **.ppt** presentation will be appreciated but is not mandatory.

Submission of the project on Moodle

The project must be submitted in the dedicated deposit space on Moodle:

- The submission deadline is **15/05/2022** at **11:59 PM**
- A single submission is sufficient per project team
- It is necessary to upload a **.zip** file containing all the files of your project:
    - All **.h** files of the project
    - All **.c** files of the project
    - A **README.txt** file mentioning:
        - Members of the team that carried out the project
        - The execution steps: name of the file to be executed.
    - The report in **.pdf** format

WARNING!!!!

- **If you don't know how to generate a .zip , contact your teachers to show you how to do it**
- **If the deadline is exceeded, NO Email or Teams submissions are allowed.**