

Python project

Evaluation criteria

The project grade is composed of:

- The report grade
- The git collaboration grade
- The code source grade
- The defense grade

Report: 10% of the project grade

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 (not to detail)
 - Justification of the choice of data structures (list, dictionary, set, ...) 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.

Git repository: 10% of the project grade

- Proof of collaboration (from all project team members) through “commits” spread out over the project duration.

Code: 60% of the project grade

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

Content:

- The number of functionalities completed out of those that are requested
- 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.
- The ergonomics of the user interface

Code clarity:

- Each code file (.py) 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: 20% of the project grade

The project defense takes about **18 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.

Bonus points

- Sections marked as bonus in the project description
- Use of branches on Git while maintaining a linear history
- Any form of originality and innovation

Submission of work on Moodle

The submission of the project is to be done in the dedicated submission area on moodle:

- The submission area will be closed on **19/12/2023 at 10:20 AM**
- It is necessary to gather in the same .zip file all the files of your project:
 - All **.py** files of the project
 - All **.txt** files used in the project
 - A **README.txt** file mentioning:
 - The report in **.pdf** format

WARNING!!!!

- After the closing of the deposit area on moodle, **NO Email or Teams** submissions are allowed.