The National Higher School of Artificial Intelligence
Data Structures and Algorithms 2

Mini-project Submission Guidelines and Directives
Submission deadline: Saturday 16/12/2023, not later than 11:59pm

General Notes:
You are required to submit a complete report which, for each part of the mini-project, gives the needed explanations (e.g. the ADT), presents the dataset (i.e. test cases) you have selected, and the execution of your implementation on the dataset. You will also include any discussion of the results of each part, as well as the overall discussion required in Question 7 of the mini-project. The well-commented codes will be submitted under electronic format according to the directives given below.

Obviously, you do not have to reimplement the ADTs you have studied in class, whether they belong to the STL or not. You can just include them and use them.

The mini-project is to be worked on by teams of EXACTLY 4 students; not more and not less. In your report, you will indicate precisely who did what on the mini-project. Each team will give a demo and any team members will not necessarily have the same grade; it depends on their individual contributions and their answers to questions during the demo as detailed below.

Practical aspects :

The work must be done in teams of 4 students, neither less nor more! Any other grouping will not be allowed and will be penalised.

You are asked the following:

1. No later than Saturday 04/11/2023 at 11:59 p.m. upload on Google Classroom a pdf document to give me the component of your team, namely a table that shows the Last Name, First name, Student ID number, email and Group of each member of the team. **If you fail to have a 4-member team your mini-project mark will be affected.**

2. Mention in the document of the previous item the team leader; any communication will be with him/her only.

3. Indicate also in your email (see previous item) the priorities you assign to the 4 mini-project proposals. Priority A means the one you prefer the most, B is next to it, …, and D is the one you prefer the least. There is no guarantee that you will be assigned your top choice. But what is sure is that failing to submit the 4 priorities, you will be assigned a mini-project by default.

4. I will inform you on Monday 06/11/2023 in shaa Allaah of the mini-project topic assignments for the various 4-member teams.

5. <u>Mini-project work submission</u>: Both the report and the code will be submitted onto Google Classroom as ONE COMPRESSED FOLDER that has the team leader's name.

Deliverables:

You will submit a report in the form of a pdf document as well as your code package which you will upload onto Google Classroom.

1. The report must be such that you
    a. explain the problem treated, the data chosen, the format of this data, the representation of the data, etc. You will need to ensure that your report clearly defines the problem;
    b. explain in full detail your design choices for your solution, and the results, including summary/comparative tables, etc.;
    c. include guidelines for using your solution if needed;
    d. respect the good software development practices you have been taught for all your code; and
    e. state who did what very precisely (points will be deducted if the distribution of responsibilities is not specified in the report). The tasks may be related to writing the

report (sections), solution design, implementation, testing, etc. Make sure all the students are involved in all parts of the mini-project.

2. Your C++ code package will be uploaded onto Google Classroom. It must include:
   - Your report in pdf format;
   - The data you have used, which must be placed in a separate folder named ***Data***.
   - The interfaces, implementations, driver program, and object codes to implement/run your solution. Do not expect your instructor to correct or debug your code. It must run right away.
   - The names of any files and folders must be as intuitive and meaningful as possible.
   - A scan of the "Declaration on plagiarism and intellectual dishonesty" **<u>filled out in pen and signed by all the members of a team</u>**. I hate plagiarism whether in the report or in the script: learn to rely on your own efforts, develop your skills, and avoid serious problems!! (Bear in mind that there are tools to detect text plagiarism and code plagiarism, even what gets generated by ChatGPT!)

Observe all the rules mentioned in this document.

<u>Project submission date and time :</u> **Saturday 16 December 2023 no later than 11:59 pm. THIS IS A STRICT DEADLINE; NOT A SINGLE EXTRA-DAY WILL BE ADDED TO IT.**
   - **For every 24 hours of late submission from the deadline, 25% of the obtained grade will be deducted.**
   - **No report will be accepted after Wednesday 20/12/2023 11:59 pm.**

<u>Important Note:</u>

A good report does not have to be long! It is up to you to decide how to have a sufficiently complete report that remains as short as possible. In other words, it is not a question of filling in but of making a written presentation as scientific and clear as possible. To help you, I limit the length of the report to 12 pages with font Times New Roman size 11. You may wish to put in the appendix various screen shots from your system (although some screen shots will probably need to appear with the explanations of your system in the main part of the report). Tables of results and/or comparisons must be included in the report (not in the appendix).

The final mini-project grade for your team will be relative to that of the other teams!! So you are competing with all the other teams in the section.

<u>Grading of the mini-project :</u>

Mini-project part	Grading Scheme
Report including analysis and discussion of the results	30 %
Data (in reasonable quantity and quality)	10 %
Overall solution (ADT, etc.)	20 %
Code quality	10 %
Demo and Q&A	30 %

<u>Final notes:</u>
- Students in the same team will not necessarily have the same grades since at least the quality of their answers to demo questions will vary.
- It is your RESPONSIBILITY to ensure that you have uploaded your package onto Google Classroom. No excuse will be accepted for any failure to do so in which case the corresponding marks will be zeroed.
- No email submission will be accepted.
- Respect ALL the above directives.

All the best!