FINAL PROJECT – LAB 10

As informed in our first lecture, you must work on a final project as a team (maximum of 4 people).

A. People:

Your teammates (if any) must be from the same lab from another lab that I am the lab instructor.

B. Topic:

Your team must work together on a game or an application (relatively complex). You are free to come up with your own game or application.

C. Tasks

+ Read and present the game rules.
+ Design classes
+ Implement the game with basic rules (50pts)
+ Justification of the used **data structures and algorithms** in the project.
+ Write report (10pts) – game rules, class diagrams, …
+ Demonstration (10tps)

1. Mandatory

+ Use Git (10pts) – Commits history.
+ Graphical User Interface (10pts)

2. Bonus

+ Extra features (+2pts for each)
+ Applying design patterns (+5pts for each)

D. TIMELINE

Submission deadline: Saturday 22/6/2024 (end of day)

E. What to submit

1. Video

Your team will need to produce a video presentation that explains about the game/ application (see the format of the report below).

The video must include a demo of your game/ application.

Video length: Maximum **10 minutes**

2. Code files

In your report, you must include **a link to your project on GitHub**, containing your codes.

3. Report

Your report (no more than 10 pages) must include:

- Introduction to the game/ application
- Design chart (i.e., UML diagram) of the game/ application
- **What data structures and algorithms are used and their justification.**
- Demonstration/ explain from the user's point of view step by step (with screenshots from the game/ application)
- Git explanation
- Extra features (if any)
- **Who did what in this project (if more than one team members).**

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REMEMBER 1: On the top of every program, including the following comment header:

```
/* Name:   Your Team Number

   Member names & IU code

   Purpose:     A short description of the program/exercise.

*/
```

REMEMBER 2: You must include a **README.txt** file. The file contains instructions on how to compile and run your code.

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