CSE201 - Object Oriented Programming in C++: organization for the project period

From November 4th both the lectures and the tutorials time will be dedicated to develop the projects. In the following, we explain the class organization for the remaining weeks and the deliverables we expect from each one of you.

IMPORTANT:

1. Read this document carefully and understand what you are required to do and when. Respecting the deadlines is your responsibility and we will use the deliverables to **evaluate** your contribution to the project (so, your final grade depends on them).
2. Everyone **should to be present** both to the classes on Monday and during the tutorials on Thursday, as for a "standard" course. Working on the project **is not** a justification to skip classes.
3. You **cannot change** your schedule of the tutorial to work with someone else from your team! Changing your allocation for the tutorials (e.g., from group 1 to group 2) is not possible (it would require to change the allocation for tutorials in other courses). Thus, all the synchronization activities should happen on Monday and asynchronously via Slack (you will have a channel for your project there).

Class and tutorial organization

Progress meeting and class on Monday

We will use the lecture on Monday to achieve two goals:

1. Discuss with you the project updates.

   Each team will have a total of maximum 10 minutes (be ready to present your board in 5 minutes, we will use the additional 5 minutes for discussion and feedback) to present us the updates on their project. You **will use the Trello** board to explain the tasks that you completed in the last week and we will ask you questions about your project (e.g., understand if your plan is feasible, identify technical problems, ...). You can consider this as a "sanity check" that your project is on the right track.

   We expect every team member to be present to the class and the **project leader** to present the project's updates (but other people can step in if necessary).

2. Discuss and plan the tasks for the week (for each team).

   While the other teams are presenting their updates You will work with your team to define the set of new tasks to accomplish for the next week, take decisions about your project, …

   The main deliverables of this discussion should be a set of new tasks on the Trello and their allocation (i.e., who will do them in the next week).

   It is important for you to use the class slot on Monday to meet together since this time is already allocated on your schedule, and you need to be in sync to use the tutorial time to work on your tasks.

The class will be organized as follows:

- General announcements from us (there may not be any).
- We will discuss the project updates with each team (~ about 60 minutes).
- You will discuss for the remaining time (~ 30 minutes) with your team about the planning for the week (goal 2). *IMPORTANT*: try to be close to the other students in your team in Amphy Cauchy to be able to discuss together.

  We will also be available during this time to discuss specific questions about your project (if any).

Tutorials on Thursday

You will use the tutorials on Thursday to accomplish your individual tasks (i.e., mainly write the code for your project).

We will be present during the tutorials to answer your questions and help you solving the problems you will encounter during the project. The problems we expect you to face are either technical (e.g., how should I organize my code? how can I use the library `xyz` ?) or organizational (e.g., what feature should we implement first?).

Try to optimize the time and resources you have during the tutorials:

- at the end of the Monday's lecture make sure **everyone** in the group has a set of tasks to work. It is both the project's leader and of each one of you to make sure you have a significant task/s to accomplish.
- Exploit the resources available for you during the tutorials (i.e., your instructors!). The tutorial is the right time to ask your questions, so be pro-active and try to arrive on Thursday with a list of questions you need help with. We will answer to your questions **mainly** during the tutorial time (note that we allocated 2 professors and 2 teaching assistants to help you during the tutorial).
- Use the tutorial's time in a productive way and try to work on your tasks.

Deliverables for the project

We expect the following deliverables from of you (we highlighted when we expect each deliverable and if the deliverable is individual or for the team):

- **[By Sunday November 7th]** complete the project setup
- **[Every week on Monday] [Team] Progress update**: you have to be ready to discuss the status and progress of your project every Monday during class.
- **[Every week by Sunday night]**, **[Individual] Individual weekly report**: each one of you has to produce a synthetic weekly report (see below for more details).
- **[Continuously during the week]**, **[Team] Project design document**: *regularly* update the project design document (see project setup).
- **[Continuously during the week]**, **[Individual] Git contributions**: *regularly* commit your **code** and **documentation** on the git repository and push the changes on GitHub (we expect multiple commits from each one of you every week). **We will use the contribution on the git repository to evaluate you**.
- **[Continuously]**, **[Individual]** Trello tasks: use and update your task and planning on the Trello board.
- **[End of the course]**, **[Individual]** Final Report: each one of you has to send us an individual report describing all her/his activities on the project.
- **[End of the course]**, **[Team]** Final project presentation: you will present your project as a team.

Individual weekly reports

Each student must prepare a (personal) project's report every week. The weekly report helps you understanding what was your progress this week and forces you to plan ahead what to do in the next week. The report is quite important to communicate us the status of the project (e.g., do you have a plan? Are you stuck on the same task or are you progressing according to the plan?). The report further helps us understanding who is doing what and have an idea about your contributions and commitment to the project (i.e., **we will also** use the report for evaluation).

Each one of you should compose a short paragraph (ideally a couple of sentences) describing:

- What you did in the past week (e.g., the list of tasks that you completed or that got some progress).
- What do you plan to work on in the next week (your plan may change after your team meeting on Monday).

For example, a individual project report could be:

```
This week I implemented the rendering of the game weapons.
Next week I will design and implement the classes rendering the enemies of the game.
```

Every task in the report should appear in your Trello board and every implemented feature should correspond to one or more commits on GitHub. Make sure your commit messages on git refer back to the task description they implement (e.g., a commit message like `Render the game weapons` is informative while a commit message like `new code` is not).

IMPORTANT: You will aggregate all the individual report in **a single file** under the folder **reports** (a textual file is ok!) in your project's git repository **by Sunday night** (remember to push that on GitHub). Create a folder named `reports` in your git repository and create a new report for each project's week (a simple text file is sufficient).

Git Contributions

IMPORTANT: We will evaluate you using the history of the GitHub repository for your project. Recall the repository tracks the full history of commits. Ideally, the commits on GitHub will match the tasks you claim in your individual reports.

So, **ensure** that you set up your GitHub account and your commits on GitHub are correctly assigned to you.

The git repository should contain all the resources you create for the project, like documentation and graphics, and not only the source code.

Final Presentation and Final Reports

At the end of the course each team will defend their project. You will have 30 minutes to present the project and 30 minutes to answer to our questions. All the team members must attend the group's presentation and the presentation can be delivered by multiple students.

The presentation should:

- Explain what does the project do (e.g., what did you build? What are the functionalities of your program?).
- Explain the design choices you took for the project (e.g., how did you organize your code? What modules did you create and what is their relationship?).
- Show a live demo of the project.

In the 30 minutes slot after the presentation we will ask you various questions about the project. The questions will help us understanding better what your project does, why you took a particular architectural choice, …

We will use your defense to evaluate the project as a whole and then weight your individual contributions (this is why the individual reports and code ownership in your git repository are important).

Each one of you will write a final report. The report will be a 1 page document summarizing your role in the project (e.g., what project tasks did you do? What roles did you have?)