

Final Project

DUE DATE: 07/01/2021 (Thursday) 23:59

As directed below, one member from each team needs to push your submission file to the designated repository in github.

Any form of cheating, lying or plagiarism will not be tolerated. Students can get zero scores and/or fail the class and/or be kicked out of school and/or receive other punishments for those kinds of misconducts.

Discussions on course materials and solutions are encouraged. But each team should write the final code alone and understand them fully. Books, notes, and Internet resources can be consulted, but not copied from. You can use other people's packages if there is no copyright concerns, but you should cite the usage clearly in your report to help the TAs estimate YOUR contributions fairly.

Both English and Traditional Chinese are allowed for writing any part of your homework (if the compiler recognizes Traditional Chinese, of course). We do not accept any other languages.

Generally, no late submission will be granted for the final project.

1 Description

Write an interesting 2D Game in Java—for instance, a Shooter game designed with your creativity! Our only little requirement is that your game should be “2D.” :-)

2 Rules

- Each team should be formed of ≤ 4 members and will be evaluated using the expected workload of a 4-people team.
- At least one member of each team should prepare a 8-minute demo to the TAs on a demo day (07/02/2021). The demo is highly suggested to be program-based, but it is up to you to decide what to show the TAs. The demo will take place in CSIE R204. You can either use the R204 machines or your own laptop/desktop for demo. If there is a no-show at the demo, the TAs may choose to grade your team unfavorably. The presenting member should print out their final report and hand it to the TAs during the demo.
- One member from each team should push the files listed below to the designated github repository before the deadline. Failure to do so will result in at least 10% loss of your score.

3 Grading

The grading TAs would grade qualitatively with letters: A++[105], A+[98], A[93], B+[88], B[83], C+[78], C[73], D+[68], D[63], F+[58], F[38], F-[18], Z[0]. The score of the team would be the average of all the grading TAs. We reserve the possibility to adjust individual scores in the team based on performance/workload if necessary. Note that the final project counts as 35% of your raw semester score.

4 Submission File

Similar to the homework, we will ask you to use github to allow you to learn to manage your codes for the project. Your GIT repository should contain the following items:

- the source files (`src/*.java`) that you wrote, organized in whatever way under `src`
- a `Makefile` such that typing `make run` would start your game if `java` is properly installed
- other files/packages that are necessary for your game
- a short report with at **most** ten A4 pages in PDF format. The report should contain the following items. Of course, we also expect you to properly use `.gitignore` and `.gitkeep` for management.

- (1) the team members' names and school IDs
- (2) how you divide the responsibilities of the team members
- (3) the relations between the classes that you design
- (4) the advantages of your design
- (5) the disadvantages of your design
- (6) other packages that you have used
- (7) how to play your 2D game

For the final project report, we'll allow using Traditional Chinese or English

5 Java versus Android

If you want to make your final project more realistic, we allow you to program with the Android environment instead of Java. The two share some similarity anyway but you'd need to learn the differences by yourself if you choose to use Android. Also, for Android, (1) you can choose either to demo with an emulator or an actual android device of yours, (2) your repository shall be properly organized with your Android source code, (3) your report should include how to execute your program under the Android environment.