Final Project Requirements

Requirements

- Hosting
    - Must be using ITU's Github server (https://github.itu.dk/)
    - Must be private until hand-in
    - Must invite chca, clol, clca
- A C++ game with the following features:
    - CMake build script
    - Resource management (Load and unload resources. Startup / shutdown. Asset file structure)
    - No resource leaks (memory)
    - 2D or 3D Graphics using SimpleRenderEngine
    - 2D or 3D Physics library support (e.g. Box2D or Bullet Physics) used for collision detection and physics simulation
    - Game loop (including game time)
    - Support input (keyboard, mouse and/or game controller)
    - Target platform: Windows or macOS.
    - Minimum 5 minutes of gameplay
- ALTERNATIVELY: the project can also be a tool or an engine-centric piece of software. In this case, you can drop some of the aforementioned requirements in order to go above and beyond one of them (the missing requirements WILL be part of the oral exam, no matter what).
  You can do the same for a game project; if the game is focused on specific complex mechanics like Procedural Content Generation, complex game mechanics or specifically strict self-imposed performance requirements (remember to argue appropriately for it in the report)
- Structure
    - Must send game code ONLY, no SRE code
    - Have some documentation on how to build it ("Drag and Drop like the exercises", or specific instructions if in different format)
    - No changes to SRE or dependencies are allowed
    - If working with the provided "MyEngine" scaffolding, changes to MyEngine are allowed.

- The code must be well structured and documented.
- A report which describes/contains
  - Describes the software architecture of the game e.g. using class diagrams and text
    (https://en.wikipedia.org/wiki/Class_diagram)
  - Performance measurements including performance bottlenecks identified and how these problems were solved.
  - A discussion of the final result including possible improvements
  - A description of who were responsible for which parts
- Hand-in deadline: Wednesday, 3 January 2024, 14:00