

WORKSHEET 1: PROJECT FRAMEWORK

Version 2.1
Computing
COMP220

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Introduction

In this worksheet you have to develop a Framework that can be used as basis to build a game or demo. This framework should use OpenGL, GLEW and SDL2.

You should complete this worksheet by building an application which implements the following:

- (a) **Initialises** SDL
- (b) **Creates** a Window which can be configured with different sizes, titles and can be toggled to full screen
- (c) **Creates** an OpenGL Renderer
- (d) **Initialises** GLEW
- (e) **Runs** a Game Loop
- (f) **Exits** when **escape** is pressed on the keyboard
- (g) **Cleans up** all resources when application exits

Submission instructions

Begin by **forking** the Bitbucket repository at the following URL:

<https://gamesgit.falmouth.ac.uk/projects/COMP220/repos/comp220-assignment-1>

Use the existing directory structure and, as required, extend this structure with sub-directories. Ensure that you maintain the readme.md file and modify the .gitignore to include the defaults for **Visual Studio** or whichever IDE you are using, along with any editor-specific files and folders.

You should complete a pull request before the hand-in on **Monday by 4pm on Week 4**. Feedback will be given in the pull request and in class.

Marking criteria

Remember that **it is better to submit incomplete work than to submit nothing at all**. If you do not manage to finish all assigned tasks, then you can complete them before the submission of Worksheet 2

To demonstrate **adequate proficiency**, complete the following:

- Initialisation of SDL2
- Creation of a basic Window
- Cleanup after exit

To demonstrate **competent proficiency**, complete the following:

- Achieve **adequate proficiency**
- Initialisation of OpenGL
- Initialisation of GLEW

To demonstrate **very good proficiency**, complete the following:

- Achieve **competent proficiency**
- Implement Game Loop

To demonstrate **excellent proficiency**, complete the following:

- Achieve **very good proficiency**
- Application exits when key is pressed
- Some evidence of software design
- Some evidence of reusability (functions, classes, inheritance)

To demonstrate **outstanding proficiency**, complete the following:

- Achieve **excellent proficiency**
- Evidence of good software design (unit tests, static code analysis)
- Evidence of reusability (Framework is compiled into a library and can be reused)