COMP220 WORKSHEET 2: BASIC SCENE

Version 1.0
Computing
COMP220

Brian McDonald

Introduction

In this worksheet you are going to build on the work completed in Worksheet 1 by building up a basic scene, which will involve loading and rendering of 3D models; these models should be textured mapped. There should also be some form of interactivity which will allow the user to navigate the scene.

To complete this worksheet, build an application which implements the following:

(a) **Loading** of 3D Models
(b) **Placement** of 3D Objects in the scene
(c) **Loading** of Textures
(d) **Rendering** of Objects with basic shaders
(e) **First Person Controls** using keyboard and mouse

Submission instructions

Continue using the repository from Worksheet 1; you should consider creating a new branch for this worksheet

You should complete a pull request before the hand-in on **Monday by 4pm on Week 6**. 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 3.

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

- Loading of 3D Models
- Placement of 3D Models
- Rendering of objects

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

- Achieve **adequate proficiency**
- Loading of Textures

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

- Achieve **competent proficiency**
- Keyboard and mouse controls

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

- Achieve **very good proficiency**
- Some evidence of software design

- Some evidence of reusability (functions, classes, inheritance)
- Additional joypad controls

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)