|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **My submission fulfils the following conditions to pass:** | | | | | |
| Software compiles | | Yes | | | |
| Populated Git repo consistent with DLE submission exists | | Git link: <https://github.com/Mdot5596/Zombie-Scene-OpenGL> | | | |
| OpenGL in C++ with vertex and fragment shaders loaded with a quad displayed and signature feature visible. | | List your signature(s):  My signature is a 3D rectangle with morgan written on it , this is hidden inside of the rock | | | |
| Write up and video explanation submitted | | Filenames: <https://github.com/Mdot5596/Zombie-Scene-OpenGL/blob/main/README.md>  YouTube: <https://youtu.be/z9JmAVT52C4> | | | |
| Defended work in viva. | | Yes | | | |
| **My CW2 project has the following features** | | | | | |
| **Feature** | **Description** | | **Category** | **Marks Claimed** | **Marks Awarded (for ML use)** |
| MVP Implemented | MVP transforms implemented in vertexshader.vert line 12 and 18. And in Main.CPP 33-37, 278-283 ,456-457. | | 40-70 Marks | 5 | 5 |
| Textures | Single and Mixed textures working in multiple models such as house, rock, and zombie  Example for Zombie:  A screenshot of a computer screen  Description automatically generated  There you can see the diffuse, normal, and spec textures, and they apply properly to the zombie model:  A green alien creature with arms spread out  Description automatically generated with medium confidence A computer screen with white text  Description automatically generated | | 40-70 Marks | 5 | 5 |
| 3D polygons with scene animations | Multiple 3D polygon objects are displayed on the screen – that being the zombie, the house, the rock, the signature, and the clouds  A screenshot of a video game  Description automatically generated  Scene animation being the clouds moving  See YouTube video for evidence of the clouds being animated  A black background with white text  Description automatically generated | | 40-70 Marks | 5 | 2.5  (see feedback) |
| Keyboard/mouse movement | W,A,S,D can be used to fluidly move around the scene and the mouse can be used to look around the screen smoothly.  A computer screen with text and numbers  Description automatically generated  See lines 370-453 in Main.CPP for the Process User Input function which holds the movement for keyboard. And see the Mouse callback function which holds the function for mouse movement. | | 40-70 Marks | 5 | 5 |
| Load models with textures | Multiple Models have been successfully loaded with correct textures, 2 different Model types (.obj and .fbx)  A screenshot of a computer  Description automatically generatedA screenshot of a computer  Description automatically generated  A screen shot of a computer  Description automatically generated  A screenshot of a video game  Description automatically generated | |  |  |  |
| Procedural content generation | Successfully generated 3 different biomes using fastnoiselite and Perlin noise to with unique frequencies and amplitude so they can be differentiated.  See lines 58 – 142, 197 – 259, 285- 307 | |  |  |  |
| Audio | Added background audio noise (rain) and interactive audio playback (spacebar makes camera scream).  See YouTube Video for evidence audio works  A black screen with white text  Description automatically generated  A computer screen with colorful text  Description automatically generated | | Advanced |  |  |
| Research Related Implementation | This has been discussed using 2 examples in my Readme on the Projects Github page | |  |  |  |
| Total Feature Marks | | |  | **25** | 17..5 |
| Passing Marks | | |  | **40** | 40 |
| Minimum marks expected (not including aesthetics) | | |  | 65 | 63.5 (ML will give final mark here including aesthetics) |
| ML Feedback: | | | | | |

Name: Morgan Hodge

\*By submitting this form I acknowledge all the information claimed to be true.