

COMP3170 Assignment 3 Report

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Your development environment

Please record your eclipse settings and your software & hardware configuration below.

Java JDK version used for compilation	1.8.0_241
Java compiler compliance level used for compilation	1.8
Java JRE version used for execution	1.8.0_241
Eclipse version	2019-12 4.14.0
Your screen dimensions (width x height)	1920 x 1080
Your computer type (Mac/PC)	PC
Your computer make and model	MSI Prestige 15
Your computer Operating System and version	Windows 10 version 1903

Your program features for marking

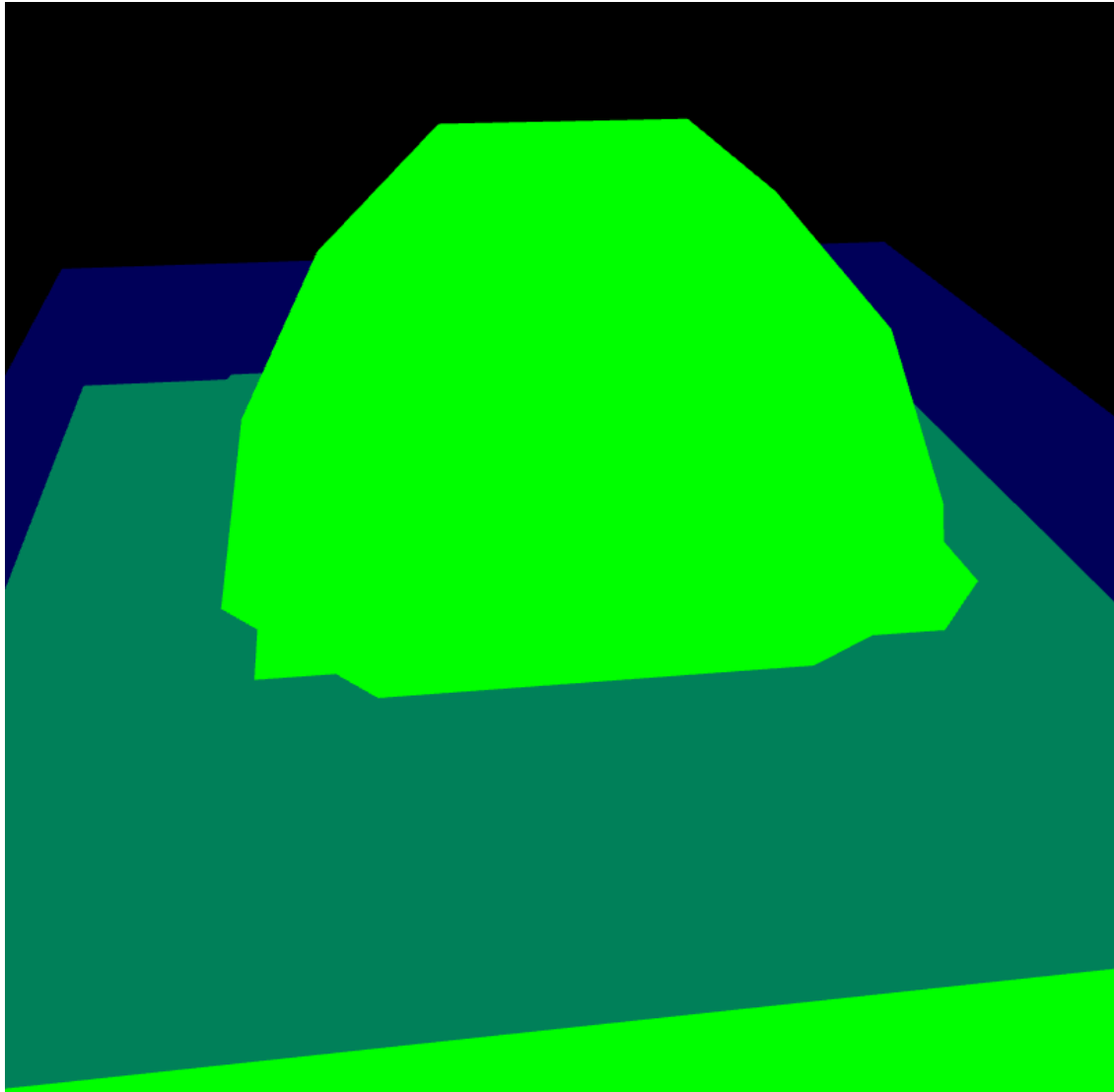
Features to be marked in this assignment. In addition to the required features, select at most three of the optional features for a total mark of 100%.

Feature	Mark	Indicate "Yes" if feature is to be marked
Terrain: Height map mesh generation	40%	Required - Yes
Terrain: Diffuse & ambient lighting	20%	
Terrain: Single texture	10%	
Terrain: Texture blending	5%	
Water: Diffuse & ambient lighting	5%	
Water: Transparency	5%	Yes
Water: Specular lighting	10%	
Water: Ripple effect	5%	
Fly-through camera	5%	Yes
Animated sun	5%	

On the following pages you should indicate where each of the above features appear in your program, using screenshots and filenames/line-numbers to indicate where it occurs in your project. Include relevant Java source and shader source file names.

You will not get marks for a feature if your marker cannot easily locate it within your world.

Terrain: Height Map mesh generation

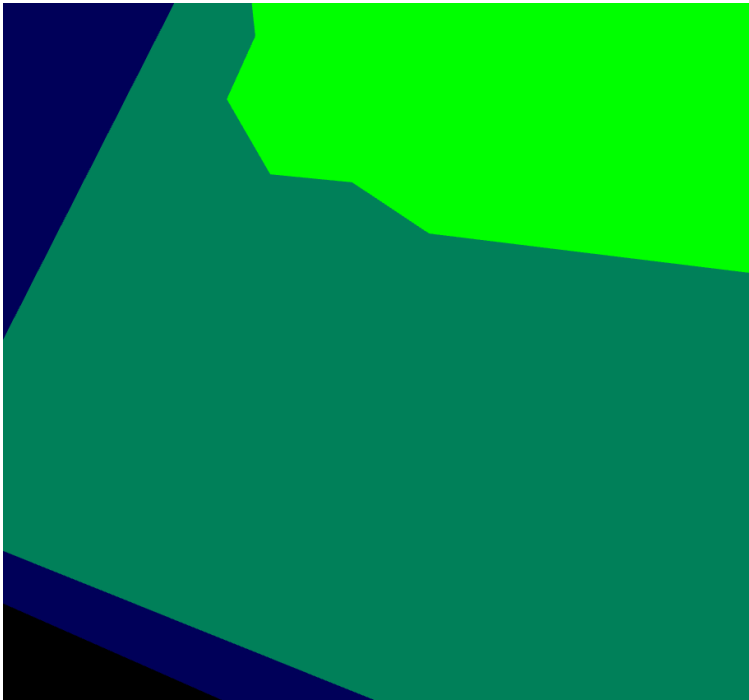


Implemented in:

- HeightMap.java:1-76 – mesh generation
- simpleVertex.glsl – Vertex shader for drawing
- simpleFragment.glsl – Fragment shader for drawing
- Assignment3.java 192-199 – creating the object

NOTE: These file names are for illustration only. Your project does not have to include these files.

Water: transparency



Implemented in:

- Water.java lines 1-46 – water generation
- simpleVertex.glsl – Vertex shader for drawing
- simpleFragment.glsl – Fragment shader for drawing
- Assignment3.java lines 202-205 – creating the object

Fly-Through Camera

Refer to previous screenshots as this can't really be shown but it can be seen that the camera has been moved in previous screenshots.

Implemented in Assignment3.java 259-277