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CSC305 Assignment 4
Procedural Terrain
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Introduction:

Uses procedural methods to generate a virtual world. Consists of geometry, rendering, and animation.

Geometry:

- Created primitive triangular mesh with GL_TRIANGLE_STRIP
- Implemented Perlin noise on the CPU
- generate a heightmap texture using fBm (see noise.h, and this tutorial)
- used the heightmap texture to displace vertices in the vertex shader

Rendering:

- calculate surface normals, add diffuse and specular shading
- texture according to height and slope (needs adjustments)
- implement the skybox texture using OpenGLs cubemap textures

Animation:

- implemented WASD camera controls

