



COMP 7051 – Introduction to Games Development

Instructor: Borna Nouredin

Assignment 3

Total marks: 100

1. [30 marks] Write an XNA game that runs on both Windows and XBox 360 that draws a 3D maze. The maze can be generated randomly or programmatically, or be loaded in as a resource. The walls and floor of the maze should have a texture. North walls, south walls, east walls, west walls and floor tiles should have different textures.
2. [20 marks] Add the ability to move through the maze as in an RPG game. Add controls for the keyboard and gamepad.
4. [5 marks] By default, the user should not be allowed to walk through walls. This behaviour should be able to be toggled by pressing the w key or Y button on the gamepad.
5. [5 marks] Add controls to allow the user to look up or down.
6. [5 marks] Pressing 'z' (or the B button) should zoom the object in and 'Z' (or the A button) should zoom the object out. You can choose the zoom factor.
7. [5 marks] Pressing the HOME key (or the START button) should reset the user to the entrance of the maze, and reset to the default view.
8. [5 marks] Add the option for the user to specify "day" (bright ambient) or "night" (low ambient lighting) conditions.
9. [5 marks] Add the option to turn on a fog effect.
10. [20 marks] Add vertex and pixel shading to mimic a flashlight effect.

Submit your entire project, including documentation (at least a README file with any notes and a description of the user controls for each part) to the D2L dropbox. **You are to work in pairs, and both will receive the same mark.** Your submission should be in a single ZIP file using the naming convention A00ABC_A00XYZ_Asst3.zip, where ABC and XYZ are your student numbers.