Fogs report assessment 2

The concept of the game was to create it using only Open GL to create a 3d object or objects that rotate on their own with no player input, these rotating objects were then later duplicated and scattered randomly so they are not drawn on top of one another and give the illusion of there only being 1 shape. there was also lighting present in the scene with a light source in the top right of the screen, this allowed the objects to cast shadows on other cubes. The objects were also wraps in a basic texture of some penguins walking, this was to demonstrate skill to do so. A camera was also implemented to allow the player to traverse the object field and look at it from multiple angles, the player could control the camera with the W, A, S and D keys to move and the X and Z key to zoom out and into the scene.

A picture containing keyboard, screenshot

Description automatically generated

on reflection of the semester , can say I did a few things wrong that I would change in the future,

firstly, I would read the tutorials more carefully, ensuring I understood what they said and meant before changing my code, because at many points throughout the semester i had no clue what I was doing and not reading the tutorials slowly and carefully contributed to that confusion.

secondly, I would comment my code and leave reminders for myself on what i was doing, because from week to week i would need to spend more time than necessary reminding myself what I was doing before and what part of the tutorial I was on.

thirdly I would do more research on open gl to supplement what I learned in lectures with my own findings on the internet, this would allow me to understand the topic more and do better in said topic in the future. I would do this by seeking out reputable sources like dedicated programming sites like stack overflow, and supplement that with a in depth explanation from chat gpt which and explain things well at any level of programming literacy

fourthly I would organise my code more, this would allow me to navigate what code I write easier and faster so I can spend more time coding and solving problems and it would look more professional.   I would do this by following naming conventions I set up early in the code so I don’t confuse myself, follow sensible naming conventions and name things what they do.

Upon further reflection, I would have liked to set up a key binding that adds or subtracts from the objects rotation.

Furthermore I would have liked to implement a key that if pressed flips the camera 180 degrees horizontally.

If done again I would modify the pyramids to include them back into the scene with a different texture, this would make the scene more interesting and make it feal more populated.

main

Hellogl

UML diagram attempt

Key

The arrow points to what that class includes at the top of the code

Like texture 2d includes structures but structures does not include texture 2d.

Mesh loader

Pyramid

Glutcallbacks

Structures

Tex2d

Sceneobj

Cube