Title: OpenGL Graphical Demo

Demo High Concept

The high concept for the demo that I have created is to demonstrate the techniques that I have had to utilise to meet the requirements of the brief that I have been given. My scene features a static lit, textured model with a movable light source, along with another textured model that has physics due to the implementation of BulletPhysics, this model can be interacted with by pressing keys on the keyboard to add force and invert gravity, which adds a sense of interactivity with the simulation. Ray casting can also be used to pick objects in the scene, which the tag will then be displayed in the print window to be able distinguish between them and show that the system is functional. The player is also able to move around the demo using the arrow keys and able to to change the view point using the mouse in a FPS game style.

Intended Aesthetic

Due to the time constraints I was placed under due to factors outside of my control (Lack of internet at home during the holidays), my demo lacks any sort of solid aesthetic as I intended to hold all of my models in a larger dedicated space to separate them and make it feel like a museum setting but I simply ran out of time to implement this.

BulletPhysics Implementation

The effect of the implementation of Bullet allows the user to interact with the simulation in a realistic manner, with the affected object having a mass and thus coming under affect from gravity, which can also be inverted to add another layer of interactivity within the demo shows how the objects would act in the real world and thus display how they would work in a video game context with the interactivity aspect. This implementation has no bearing on the aesthetic of the demo.

Raycast Implementation

The effect of the raycast implementation means that objects in the world can be picked out and utilised, due to the scope of this project, the interactivity simply stems to printing the objectTag into the print window, showing that the system works, however if I had more time I could have added more interactivity by maybe adding force to the object when it is selected. This implementation has no bearing on the aesthetic of the demo.

Scope of Project

The scope of my project was perfectly fine before I encountered the previously stated problem that the project started to fall behind the milestones that I wanted to be hitting during the development time, although the demo is mechanically all there, it would definitely benefit from a dedicated aesthetic as at the time of completion it looks very barren and boring but is mechanically sound.