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CS-330-11661-M01

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February 23, 2025

## Final Project

Even though I really had a tough time in this class, I considered the idea of reflection when creating my \*\*3D scene\*\*, especially in relation to the objects I chose. To demonstrate the possibilities of reflection in a virtual setting, I selected reflective objects like mirrors and metal surfaces. In terms of functionality, I programmed my scenario to allow for user navigation using multiple input devices such as a mouse, keyboard, or joystick. Custom functions that allow the user to move forward, backward, left, right, up, and down were implemented in order to accomplish this. A completely immersive experience is made possible by these features, which also include the option to rotate the camera in various directions.

I created a custom function that takes input from the user's selected input device in order to manipulate the virtual camera in my 3D environment. This feature uses user input to determine the camera's movement's intensity and direction. The user can \*\*navigate\*\* the scene however they feel most comfortable by utilizing various input devices, such as a mouse or a joystick. My program's custom functions were created to improve the code's modularity and organization. For instance, I developed distinct routines for user input, object selection, and camera movement. Because each function carries out a distinct duty, it is simpler to find and address problems in the code.

Code reuse for subsequent projects is further facilitated by segmenting the code into smaller, easier-to-manage chunks. In conclusion, I used reflecting items to highlight the potential of a virtual world in my 3D scenario, which was created with the idea of \*\*reflection\*\* in mind. Custom functions were created to handle the virtual camera and make the code more modular and structured. The scene may be navigated by the user using a variety of input devices. The code can be used more effectively in subsequent projects by being divided into smaller functions.