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| CS 330 |
| REFLECTION |
| A STILL LIFE SCENE WAS CREATED WITH OPENGL. SUCCESS AND IMPROVEMENTS ARE DISCUSSED. |

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**CS 330 Reflection**

I chose my scene of an apple, pear, chalice, vase, and flowers on a table because the object shapes were interesting and complex, the lighting was visually appealing, and it would give me an opportunity to use many different types of shapes, both complex and simple, to create this scene. I was able to program each object by separating their individual functionality into their own render and create functions. I also made several overloaded functions, so I could make multiple objects of the same type, but adjust their scale, translation, and rotation in the scene. Custom functions for each object to be rendered, to define the vertices and create the objects mesh, to initialize the glfw window, and for the mouse and key functions, were made to clean up the main function that executes the program. These functions, which have their own overloaded functions. This gives the program flexibility, as well as the ability to be used in different programs that may want to reuse certain complex shapes, such as making a barrel, and using the apple code to fill it with apples or calling the stem and petal functions to create a full bouquet of flowers.

The user can navigate the scene by using the “wasd” keys. The mouse serves as a pitch rotation, so the user can look up and down, a yaw rotation so they can look side to side.

Areas of improvement is that the scene feels sparse, and could benefit from populating it with multiple objects, such as adding more pears and apples to fill out the empty table, putting something inside of the chalice, or adding a backdrop to the scene. Issues I faced with this project were applying the textures properly to the objects and working with the learnopengl camera.h file to adjust the camera movements, such as programing the “qe” buttons that would allow for the user to go straight up and down.