When creating a large project to have any type of success, you would need to approach it with a plan. In this essay, I will discuss some of the design decisions I had throughout the course of this project and the changes that I made in pursuit of having the project complete.

The first part of the project was deciding on what type of place to store the objects in. I wanted to do a simple 3d plane to have the objects on. I played with the plane dimensions throughout the project to make sure that the objects could fit on it without being crowded.

After the plane, I wanted to look at objects that were simple. I wanted to stick with simple objects in this project to ensure that I could complete the project. For the first object, I wanted to use a pyramid. The reasoning behind it was that we were already using pyramids in the lessons, so it was something that I would understand when adding it to the plane. The next object was a cube. For the cube, I understood that a lot of the principles from the plane would transfer over. When creating the cube, I did alter the sizing because the next object was a pyramid that would go on top of it. For the pyramid, I would alter the size to ensure that the two objects would align. For the final object, it was a flat piece of cardboard. When doing the cardboard, I would keep the same mesh object as the cube, but I altered the transformations to make it a flat object. By using similar shapes, I could reuse a lot of the code and would just have to work with the transformations to reuse a lot of the shapes.

The next step was lighting. For lighting, I wanted to keep it simple. I did one light object I played with the light object position to ensure that the shading of the objects felt natural. Upon finding the proper place for the light object, I played with my shading and ensured that the objects that were far from the object were properly lit.

The next part of the design was movement controls. For movement, I wanted to ensure that the mouse was correlated to the camera view and that the WASD keys would control the movement of the camera in the scene. I then added options for a Q and E key that allowed for ascending and descending the camera. Lastly, I added a key that allowed me to switch through two views.