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Computer Graphic Design

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This was, without a doubt, the most difficult class I’ve ever taken in my life. Due to that I made a lot of design choices that worked to meet the goals of the assignment but to also simplify it. The key difference that you may notice is that there is no tennis racket. Many hours were spent attempting to get the tennis racket, handle, and strings position correctly in the scene and I was unable to make it work. Due to that I chose to remove it entirely. Fortunately, between the balls, the seems in the balls, the court surface, and the white line I had enough objects in the scene to still satisfy the conditions of the assignment.

As far as my choices go, I chose this scene because I have been extremely into tennis lately. It has helped me work out the stress from school (especially this class) as well as my job. In the design of the scene, parts of it were very obvious in regards to what I needed to do. For the tennis balls I used spheres but I overlayed a torus to mimic the seem of the ball. I did cluster them closer together than in the picture due to the fact that I was attempting to use them to center the racket when I was attempting to include that in the scene. When I removed the racket I decided to keep the clustered since I felt that it centered the scene a bit more.

With the white line that represent the line of the court I didn’t extend it all the way across the plane because it felt unnecessary. To really mimic the scene you would need to move the camera to be directly over the balls and the line and looking down. You would also need to be quite zoomed in. Doing that would make it so the line would be entirely in the frame. The last major design choice was in regards to the lighting. The goal was to mimic the sun, and make the clay a bit shinier so that it felt that the sun was reflecting lightly off of the surface.

As far as camera controls go, I used the same format that we did in the assignment earlier in the class. W,A,S and D keys are used to control the forward (zoom in), backward (zoom out), left, and (pan) right motions. The Q and E keys are for controlling the upward and downward movement. The mouse cursor is used to change the orientation of the camera so it can look up and down or right and left. Lastly, mouse scroll is used to adjust the speed of the movement or the speed at which the camera travels around the scene.

As far as custom functions in my program go, I had very few. Due to the fact that this class is not at all what I want to do in the future, was extremely difficult and time consuming, and support was tricky to get I mostly attempted to satisfy the weekly assignments with as few lines of code as possible.