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CS 330 Final Project Reflection  
   
 **Final Project Reflection**  
**9. Justify development choices for your 3D scene.**

Due to the comedic nature of my image, I decided to take characterization a step further. I had an idea to make the dog cart a block of cheese, riding on wheels that belong to a neighboring vehicle. My initial intention was to go with hyper-realism, but the pull to create a cartoon instead was too appealing. The humor is that the other vehicle is riding on cheese wheels which should belong to the dog’s car, so it looks like the dog is chasing the car to get its wheels back. Off to the side is a plane superimposed with a “doge” meme texture which sort of gives a toon force effect to the entire scenario. For enhanced realism, I gave the dog a fur texture, positioned two light sources and provided UV scaling for my textured objects, to create a more dramatic lighting effect.

**10. Explain how a user can navigate your 3D scene.**

1. Navigation: To enable user navigation, I used a combination of keyboard and mouse controls. The arrow keys control forward, backward, and strafing movements, while the mouse input controls the camera orientation and speed, allowing the user to look around.
   1. Keyboard Input: Character keys W,A,S,D, Q and E control the left, right, forward, backward, upward and downward camera movement.
   2. Mouse Input: Mouse movement is mapped to changes in the camera's orientation, and the mouse scroll bar quickens or slows down the speed of scene navigation.

**11. Explain the custom functions in your program that you are using to make your code more modular and organized.**

1. Movement Functions: I created modular functions for handling camera movement based on keyboard input. These functions take input parameters such as speed and direction and are reusable for any object requiring controlled movement.
2. Load/Draw Shape Mesh Functions: I am able to load and render shapes easily by way of invoking each individual shape’s method.
3. Set up Scene Lights Function: This function has pre-defined parameters for ambient, diffuse and specular lights, as well as color intensity and focal strength.
4. Set Transformations Function: I repeatedly used this function to position my objects relative to one another, by tweaking the Scale value for adjusting size, as well as modifying the xyz coordinate values of each object.