In the process of rendering a simple 3D scene featuring my guitar, I made several key decisions to replicate the picture used in my project proposal. The primary decision revolved around selecting appropriate 3D objects to outline the guitar's structure. I used basic shapes: boxes, a cylinder, and planes to construct the guitar. For instance, the guitar body was created using a box for the overall shape and a plane to simulate the sound hole. These objects were placed centrally on the ground plane.

To model the neck of the guitar, I utilized a cylinder for the neck itself and another box for the headstock. This approach, while not a perfect representation of the real-life guitar from my project proposal, provided a simplified yet recognizable form. Some details, such as the strings, tuning pegs at the headstock, and the bridge on the guitar body, were omitted to reduce complexity. This trade-off was made to meet the project's rubric criteria efficiently and to adhere to development timelines. Simplifying the project scope to achieve a minimum viable product can be challenging, especially for those new to project management. For example, the neck of the guitar lacks a physical fretboard; instead, I applied a texture with vertical lines to mimic the appearance of a fretboard.

In the interactive 3D scene, users can navigate using the keyboard. The W, A, S, and D keys control the camera's position: W moves the camera up, S moves it down, A moves it to the left, and D moves it to the right. This setup allows for intuitive navigation within the scene. Additionally, the mouse wheel can be used to adjust the camera's movement speed, providing users with the flexibility to navigate the scene more quickly if needed.

By focusing on these essential elements, I ensured that the project met the necessary criteria while remaining manageable within the given timeframe. This experience highlights the importance of balancing complexity and functionality in project development, a crucial skill for effective project management.

Finally to touch on the custom functions I created in the program I made them so they would be easier to read. This was especially needed when rendering all of the 3D objects that made up the different parts of the guitar.