**CS330 Comp Graphics and Visualization**

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CS330: Final Project

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A computer screen shot

AI-generated content may be incorrect.

**Textures and Materials Used**

The scene utilizes a variety of textures and materials to enhance realism and differentiate objects. The key textures and materials applied are:

* Black-White Texture: Applied to the notebook cover to contrast the covers and the white pages.
* Rose Texture: Applied to the pen's body to add a unique visual appearance.
* Wood Texture: Used for the ground plane, giving a natural look to the base of the scene.
* Gold Seamless Texture: Applied to the pen tip and clip to simulate metallic parts.
* Tile Material: Used on the notebook pages for a slightly textured appearance.
* Glass Material: Assigned to the transparent lenses of the glasses for a realistic effect.
* Cement Material: Used on the notebook spine and covers for a sturdy look.

**Objects Rendered**

Several objects were carefully designed and positioned to create a realistic workspace setup:

* Notebook: Constructed using a white box to represent pages, with two black planes serving as covers and a black spine for structural detail.
* Laptop: Designed with a dark gray base and an upright black screen, slightly tilted to simulate an open position.
* Pen: Created using a combination of a cone, cylinders, and a tapered cylinder.
* Glasses: Built using torus meshes for the frame, cylinders for the temples, and transparent sphere-like lenses to mimic authentic eyewear.

Each object underwent custom scaling, rotation, and positioning to ensure a visually appealing arrangement.

**Light Sources Used**

For me to bring depth and realism to the scene, four strategically placed light sources that I implemented:

1. Primary Light (10, 10, 10): Provides warm ambient lighting to highlight objects evenly.
2. Secondary Light (-10, 10, -10): Introduces a calm tone to balance the scene.
3. Accent Light (1, 10, 1): Adds subtle green highlights to specific areas.
4. Background Light (10, 0, -10): Creates additional depth with soft reddish hues.

Each light source was fine-tuned for color, intensity, and placement to enhance shadows and highlights dynamically.

**Conclusion**

The selection of textures, materials, and objects was carefully planned to create an engaging and visually structured scene. The interplay of these elements ensures a balanced composition with realistic lighting, making the scene immersive and detailed.