Real-Time Rendering lab3 Report
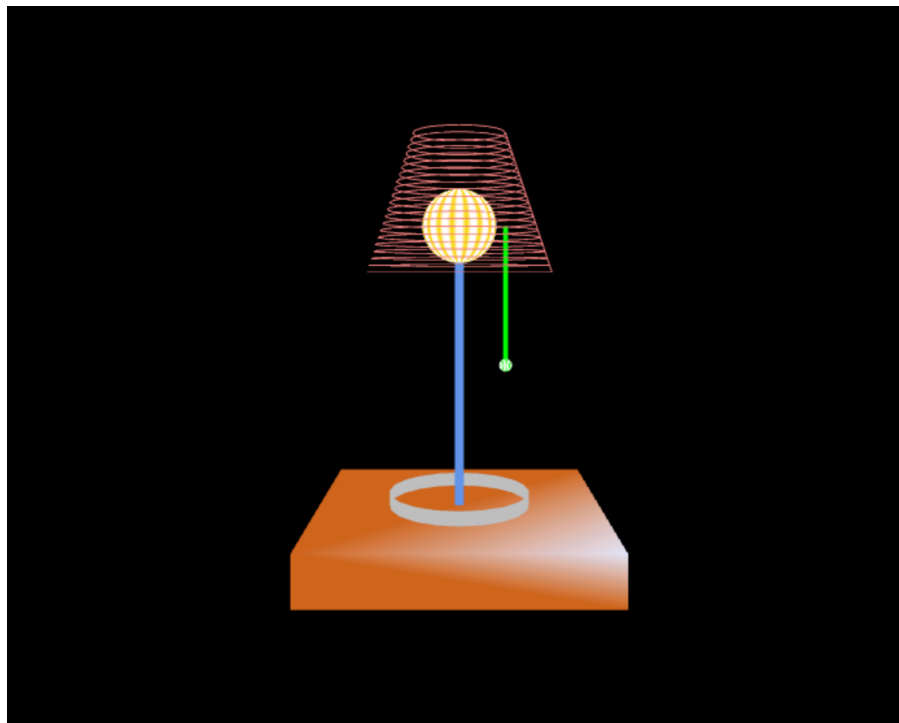
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1, I developed by Safari.

2, I created a 3d scene with camera information and perspective projection information.

3, I added four buttons, "Camera Up", "Camera Down", "Camera Left", "Camera Right" to move camera, when buttons are clicked, camera position will move in the specified direction. I added another five buttons "COI Up", "COI Down", "COI Left", "COI Right" to move center of interest in corresponding direction. "COI Roll" to modify the up vector.

4, I created a lamp on a table by using Cube, Cylinder, and Sphere

5, The lamp can be moved by push key "l", "r", "u", "d", "f", "b" to move the lamp in left, right up, down, forward, backward direction, respectively.

6, Press the left button and move the mouse, the entire scene is rotated. Press the right button and move the mouse, the scene is scaled. As shown in the following picture.

Camera:

Camera Up Camera Down Camera Left Camera Right

COI:

COI Up COI Down COI Left COI Right COI Roll