Name: Tanya Khemani
Email ID: khemanit@oregonstate.edu
CS 550

Final Project Proposal

In the final project, I will be implementing Solar System along with some other features of Computer Graphics.

I will be using **Lighting** and **Texture Mapping** in implementing the solar system. Creating a solar system with all the planets revolving around the sun and also the moon revolving around the Earth (within their orbits) is going to be challenging for me. I am also planning to create the rings around some of the planets. Apart from planets, there is going to be some other celestial bodies too.

I am planning to include one additional menu title, 'Lighting' which will have some sub-menus to turn on and off the different colored lights shinning on the planets revolving around the sun. So, this is going to involve the **lighting concepts** that we studied in the class.

I am going to use different kind of textures on different planets, the moon, and the sun, which is going to involve reading in the texture images from the .bmp files as we did in our **texture mapping** project.

Apart from this, I am planning to show some colored air balls flying in the space and falling on the planets. So for this, I am going to include one more menu title, 'Colored Balls' to enable or disable the colored balls flying and falling on the planets.

While using this, users will be able to do the rotation and scaling of the scene as they were able to do in the other projects. There will be a camera too to scale (zoom in/zoom out) the scene in X, Y and Z directions with the help of keyboard keys.

The features I am going to use in my final project, are basically texture mapping and lighting. To implement them, I need to use all the concepts of lighting and texture mapping that I learned in the class. Creating the solar system involving the revolution of the planets around the sun, within their orbits in the space, will lead me to learn something new while applying the concepts of lighting and texture mapping together to a completely different project. Hope this results in a good final project.