CS - 550 - Intro to Computer Graphics

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Final Project

1. The text from proposal

   a. I am proposing the idea of developing the Earth, Moon which revolve around the sun. I am planning on developing this idea in such a way that the Sun is a stationary object and the Earth revolves around the Sun, and the Moon revolves around the Earth. In this idea Earth and Sun rotate on their own. I am planning to have lighting where the sun emits the light so that we can see the shadows on earth and moon which shows the days and nights. I am also planning on changing the view when we press 'e' so that we can see the earth and moon in a much closer view. I am also planning on creating a space shuttle which implies "Apollo 11" which is a mission on to the moon. Additional Ideas - Developing the idea of 'Apollo 11' concept. Where there will be a rocket that starts from earth to moon that lands on moon.
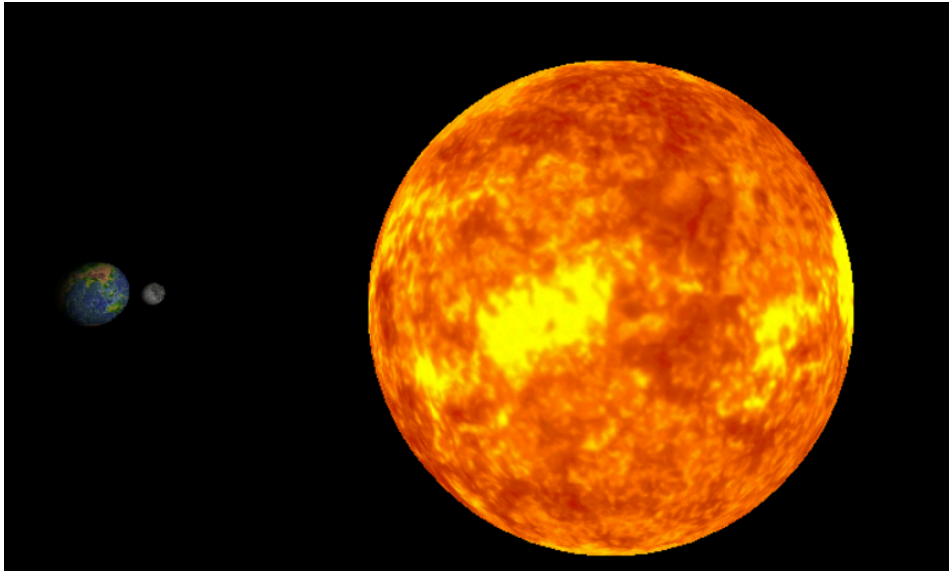
2. What you actually did for your project

   a. I did develop the idea of Earth, Moon and Sun where initially I show the perspective of the Sun where we can see Earth and Moon revolving around the sun. When we press 'e' we can see the change on the view where we can see the earth's and moon's perspective much closer. I also have used the actual textures that I have
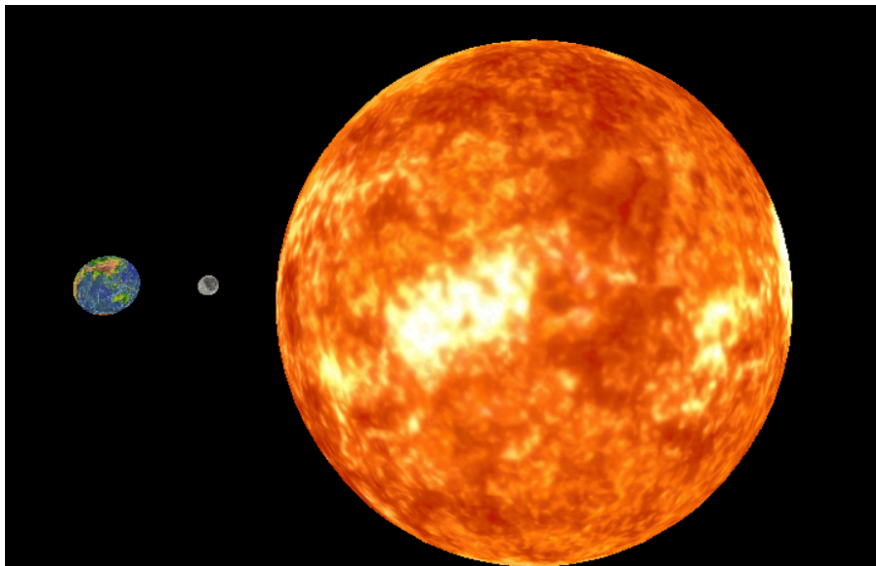
downloaded from the internet. I also did the lighting where the Sun is lit with just texture and when we press 'L' we can see that there is a change of lighting on earth and moon which shows that there are days and nights. I have also created a spaceship with the help of spaceship.obj file which shows the idea of Apollo 11 a manned mission on to the moon and back to the earth.

3. How your project differs from what you proposed, and why

   a. I proposed that the spaceship will be landing on the moon but then I decided to make the spaceship rotate around the moon and as well as around the earth which shows the idea of a spaceship going from earth complete the mission and take a slingshot from the moon and come back to earth.

4. What you learned from doing this project (i.e., what you know now that you didn't know when you started)

   a. I really enjoyed doing this project. The main concepts that I have learnt in the project is that the sine and cosine functions to make the earth and moon rotate around the sun. I have also used sine and cosine functions to change the viewpoint. I have learned these two mainly that I didn't get to know before. Yes, we have the textures mapping assignments to map the texture but those are stationary objects, but in this final project I made the revolving motion which I really liked.
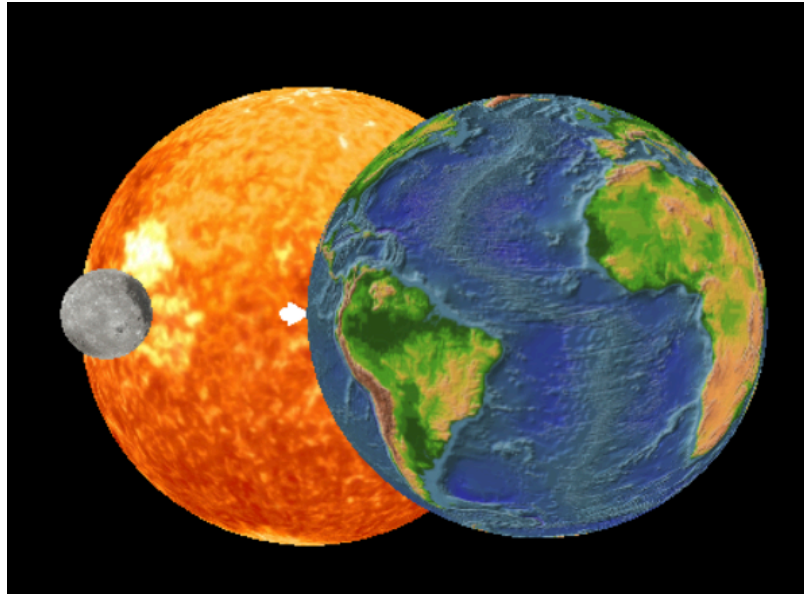
5. Some images that are especially representative of what you did

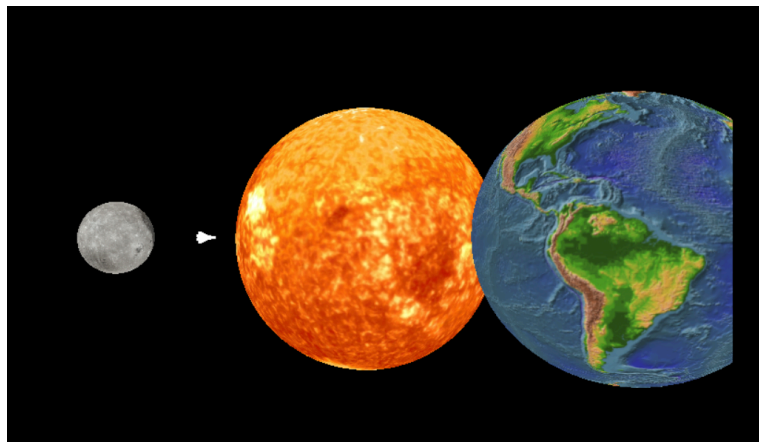   a. Sun's Perspective to see Earth and Moon revolving(lighting)

   b. Sun's Perspective to see Earth and Moon revolving(no lighting).

c. Change of the view to see earth and moon much closely

d. Spaceship

6. Video Link : https://media.oregonstate.edu/media/t/1_bql28n1p