

Yinchao Zhu

zhuyin@oregonstate.edu

CS 450/550 FALL 2020

Professor Mike Bailey

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Final Report: Sun-Earth-Moon System

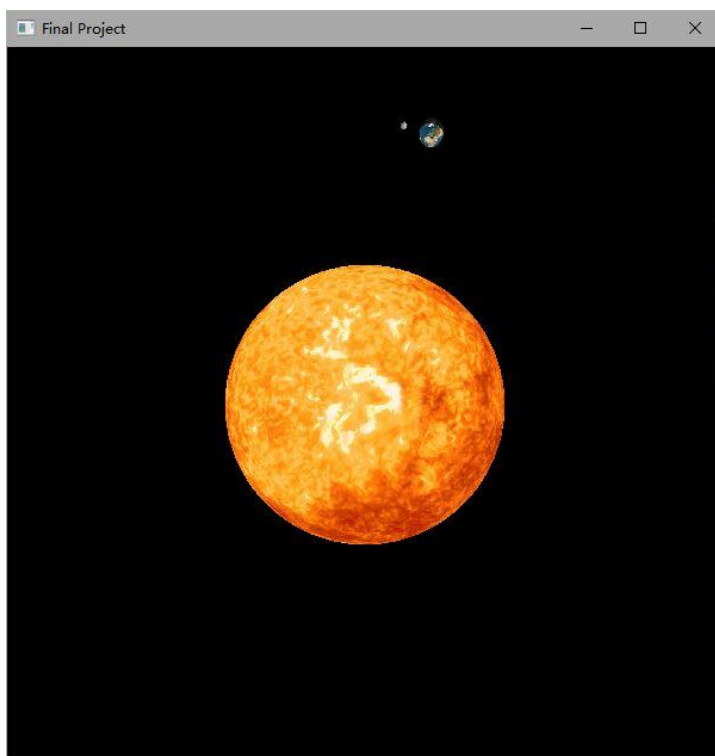
Here is what I write in my proposal:

1. Display the sun, earth, and moon with the appropriate ratio of the size
2. Add texture to these planets
3. Animate these planets with appropriate speed
4. Apply lighting to the system
5. Try to add some cool look point

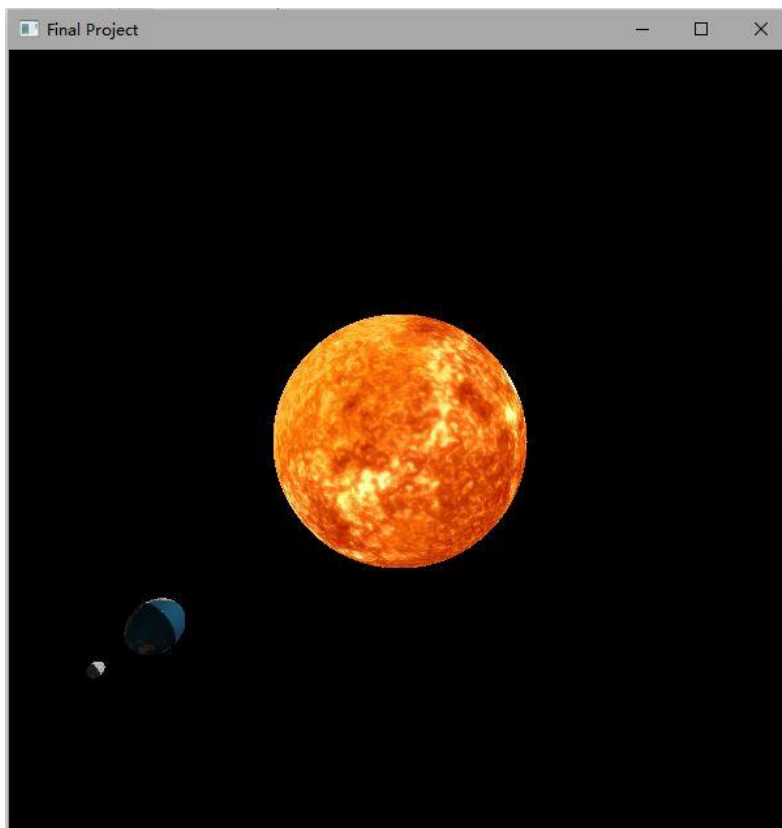
General speaking, I have done all of these works. For the size and speed, I have made it bigger or smaller to make the system looks good. Because the earth will be really small and far from the sun if applied the real data. Texture and Lighting are applied.

For the look point, I have added 6 different look point for this project:

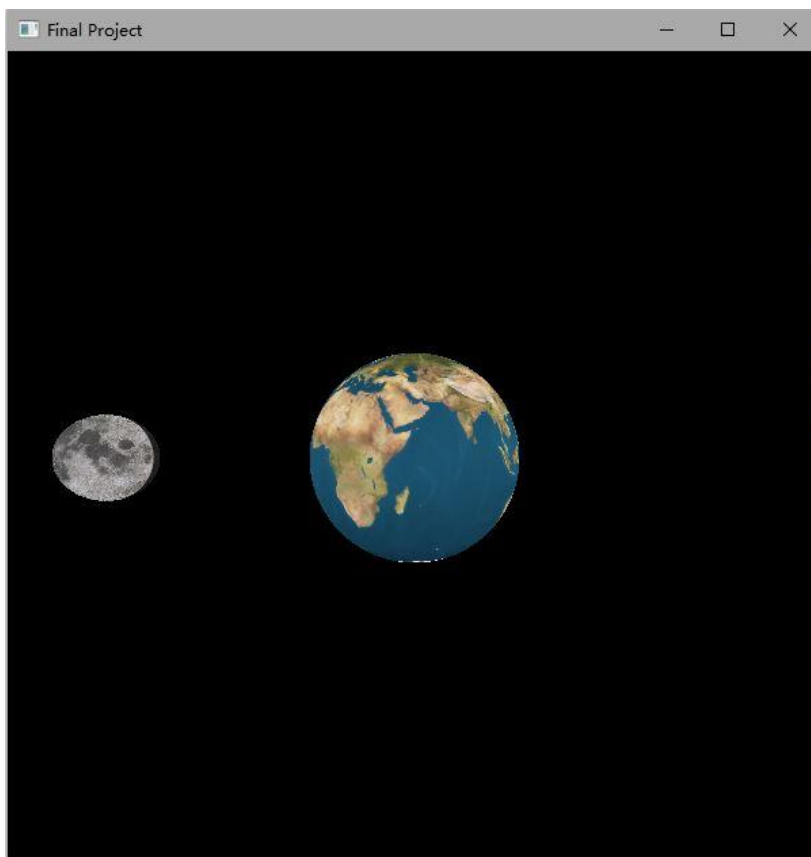
1. Default: The Top view



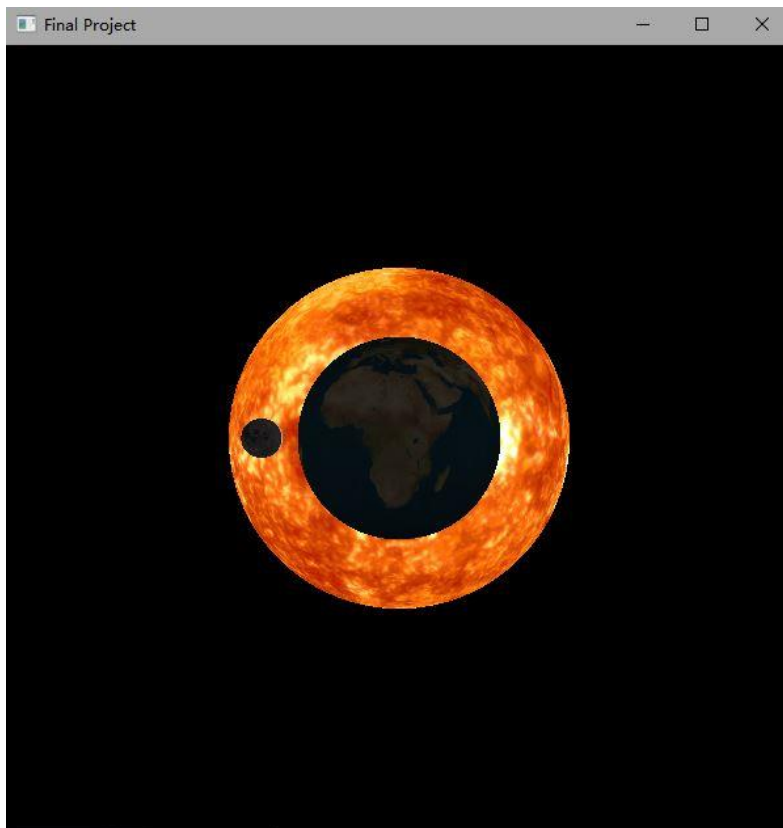
2. A Good View I found, like in some movie



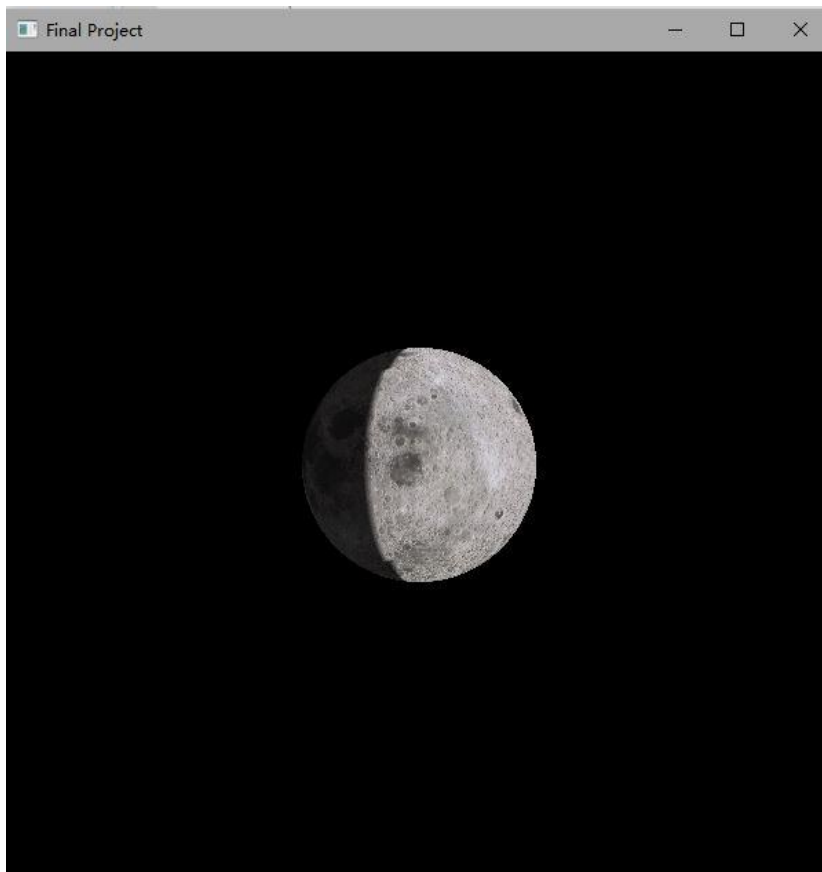
3. View for earth and moon system



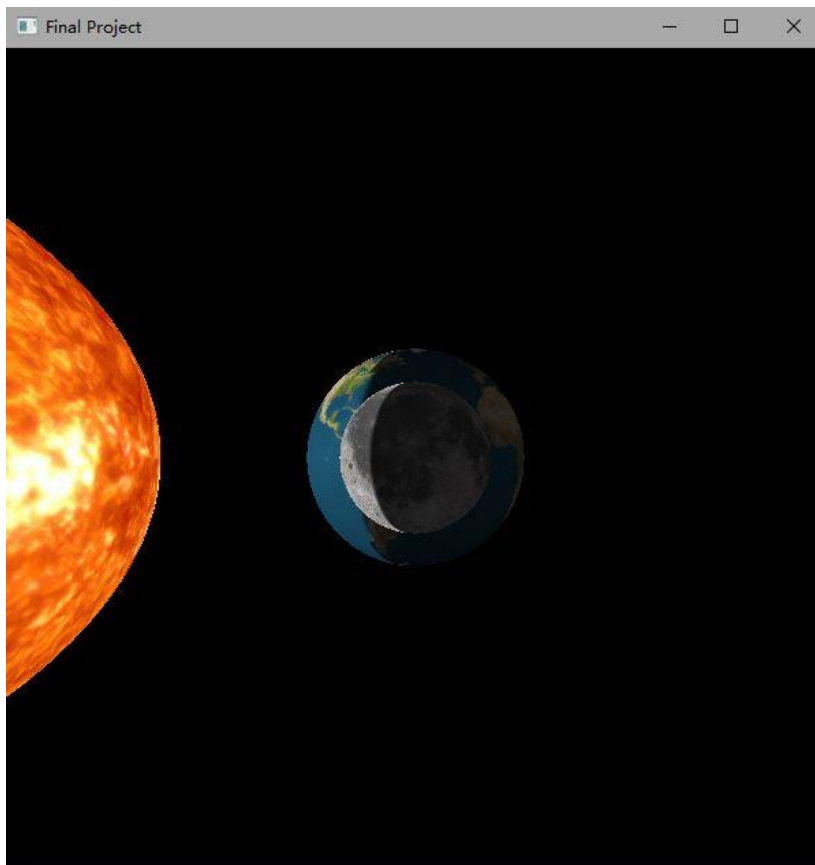
4. View from earth to sun



5. View for moon



6. View from moon to earth



There is no big different from my proposal.

After doing this project, I think I have a better understanding on the `gluLookAt()` function. I used to think that the viewpoint will be the easy one in my project, but actually it takes me much more time than I expected.

For the image, I believe it is the good view I found (No.2), though it is not complex, I really like it because it looks like some view in movie.

A Video Link: https://media.oregonstate.edu/media/t/1_7zdvq27e