**Final Project Milestone Report**

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In the final project, I will be implementing one technique of computer graphics regarding rasterization. The technique that I will be doing is shadow mapping in which I will be creating shadows for objects in a scene.

For this project, I plan to use two objects in total to demonstrate the effect of shadow mapping. One of the objects is the bunny model and the other object is the teapot model. Both models that I will be using are present in projects and homework I did in this quarter before the final project. The models will be colored for aesthetic purpose. As for the way to demonstrate shadow mapping. There will be a light source presented so that the person that sees the scene will know exactly where the light source is, and the person will see the shadows of the objects that are casted by the two objects. In addition, in order for the person to know the effect of shadows between the light source and the objects, I plan to give the person who sees the scene the ability to change the location of the light source.

As of right now, I successfully completed showing the bunny object and the tea pot object using codes from project 2. The coloring and shadings of the objects are there as well. I successfully added the light source to the scene as well so that the light source is visible to the person that sees the scene. It is placed above the objects with the purpose of showing the maximum of both shadows and the light source without the objects blocking the view. In this case, the person can always see the light source and the shadows at the same time. I have yet to implement the shadow mapping for the objects and the ability to change the location of the light source. I’m still not sure the best way to let the user change the location of the light source, but I would love to implement a mechanism so that the user can use the mouse to place the light source in a fixed range of locations that are above the objects. That will be the next step for me. If it could not be accomplished, I plan to choose another way such as specify the location of the light source by the user. The next step after completing the light source would be the actual technique in this project, shadow mapping. The plan is to make the shadows of the two objects change dynamically as the user moves the light source to another location.