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CS300 - Computer Graphics

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Project 1 Write-up

In the first project, Anh and I built a 3D house by OpenGL. Our program allows users to select and rotate the house by mouse in 180 degrees. The house has four views of a simple building. They are the front of the building, the left and right side of a building, the top of the building and the back of the building. The house is colored in a pastel palette and decorated with a green grass field and some shooting stars.

Tam worked on displaying house function and rotated by mouse function. Anh wrote shooting stars function, grass function and changing color to make the architect beautiful. We had a problem when displaying windows and a door on the front wall. However, by changing the z-value in the poly offset function, the problem is fixed. We learned that the z-value should be greater than 0 to make the poly offset function works.

For the first project, the difficulties we faced are how to determine the x-y coordinates of the screen to create shooting stars and a grassland since we use rotating mouse to change the direction of the house. Moreover, we took time to create 5 stars on the upper-right of the screen. We realized that creating an object and a scene is not easy if we do not understand the coordinate and the viewport of the window. In the future, we will try to write small functions for displaying each object instead of hard-code them in the display function. After this project, we feel confident with basic knowledge to create 2D and 3D objects and scenes.