Documentation of Final Project Part I:

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structure of program:

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| --- | --- | --- |
| File name | Functions | Notes |
| Index.html | Web page of the project. Including the canvas.  Calculate lighting in the vertex shader. | Include key down notes for changing light and shading mode. |
| sphere.js | Sphere file containing triangle points to build the sphere including a function to parse the object. (from sphere.ply)  Index.js can use the function to build sphere |  |
| Index.js | 1. Add key down listener for changing requirements. 2. Render function: for each of the shape, their lighting parameters and material specular are the same, but material ambient, diffuse are different based on the color of the shape. 3. Bones (racks that hold the shape) are set to white. 4. For Gouraud lighting, calculate normal vector for each vertex, and then draw the shape based on the color. 5. For flat shading, directly assign one normal vector for 3 vertex, so every 3 vertex(they compose a triangle) has the same normal vector, so they have the same color(each triangle has single color based on lighting). |  |
| lib | Folder including all needed functions of webgl |  |