Program 1 – Ray Tracing

CSC 561 – Principles of Computer Graphics

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1. To run the program, double click the index.html file which will load all the required JavaScript and JSON files.
2. JSON files are currently hardcoded in the program.
3. The homepage will have two buttons. First is the basic problem and second is the extra credit.
4. After clicking the basic problem, you will see two parts. Part (a) is rendering the basic spheres only with the diffusion component. Part (b) is the rendering with Blinn Phong Illumination model.
5. In the extra credit section, you will find three options for rendering. Each has given a separate button.
6. The first part is the demonstration of external light sources. Currently, it supports a single external light. The JSON file is hardcoded.
7. Second Part is Demonstration of the shadows.
8. Third part is rendering triangles. Blinn Phong model is already taken into consideration since rendering basic is nothing but the same but without the illumination calculations. Currently, it supports only a single triangle.