**Critical Thinking: Module 4**

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CSC405-1: Graphics & Visualization

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**Cube Recap**

Firstly I had to define the vertices of the cube as well as the colors for each face. In order to make a cube work with WebGL you have to break each side of the cube into two triangles so that it renders correctly. Next, I assigned colors to each vertex which then got pushed into color arrays. The vertices were also stored in point arrays to create the cube a little later.

Vertex shaders process each vertex’s position and color, and apply transformations to the position in 3D space. Fragment shaders determine the color of each pixel based on the vertex colors. Vertex buffers store the position of the cube’s vertices while the color buffers store the colors assigned to each vertex.

I decided to go a little further with the cube project by creating a start and stop feature. Furthermore, I also decided to edit the speed of rotation of the cube. This was insightful because I had to learn how to stop the cube from rotating. Most of this editing was done by creating a stop render function and creating a new var called isAnimating to check if it was animating or not. I used the example cube rotation to aid me in creating this project. I edited the sides to see what changing the vertices would do, and it made the sides incomplete; showing the back side of the cube. I also changed the colors as well as the theta axis rotation speed.