Emre Zeytinoğlu 28190

CS405 PROJECT 1

ChatGPT link: https://chat.openai.com/share/909d3331-cda4-4209-b0e0-3752c4b24c50

TASK 1

First i represent ModelViewMatrix with the help of chatGPT. It was crucial for representing a transformation that moves, scales, and maybe rotates an item in a three-dimensional. This matrix may be used to manipulate the location, orientation, and scale of vertices and objects with respect to a three-dimensional coordinate system. The transformational data needed in 3D graphics programming in the transformationMatrix as a Float32Array. Its composition establishes an object's location, size, and maybe even rotation, making it a vital tool for drawing and interacting with objects in a three-dimensional space.

A screenshot of a computer

Description automatically generated

TASK 2

The getModelViewMatrix function's main goal is to provide a 4x4 model-view matrix that illustrates the transformation that was applied to a 3D object. This transformation includes rotation around the x, y, and z axes in addition to translation along those axes. In this part, I tried to create a model view matrix myself. There was a big difference from the model created by ChatGpt. Thanks to the functions provided to make the created cube look more neat, I was able to view the cube from a distance and properly. And its view is more like a cube.

A screenshot of a computer

Description automatically generated

TASK 3

The purpose of the getPeriodicMovement function is to produce a 4x4 transformation matrix that illustrates an animation of periodic movement for a 3D object. This animation features seamless rotation, scaling, and translation transformations that last for a predetermined amount of time. In this part i want to represent infinite motion of the cube. ChatGpt did not understand me very well but after a lot of corrections it could create the motion that i want on the browser. It used functions in the util.js file and created the motion that is wanted successfully.

