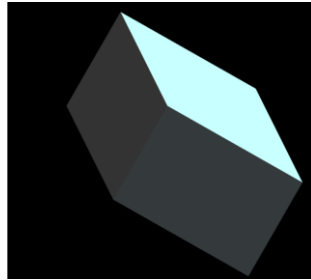CS 405 Project 1

Fall 2023

11/16/2023

Elif Nazlı Yavaş

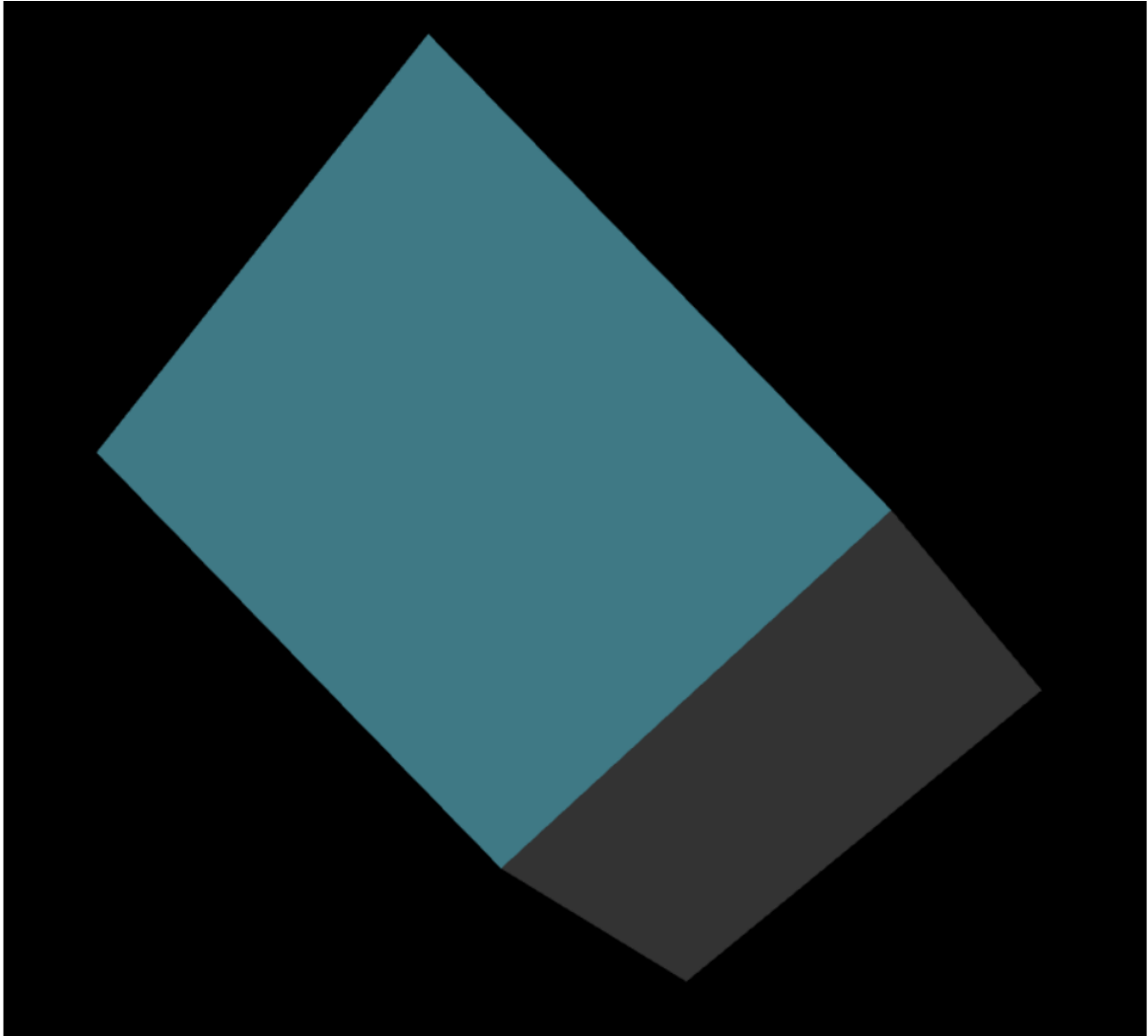24930

Topic:

3D Animations using ChatGPT
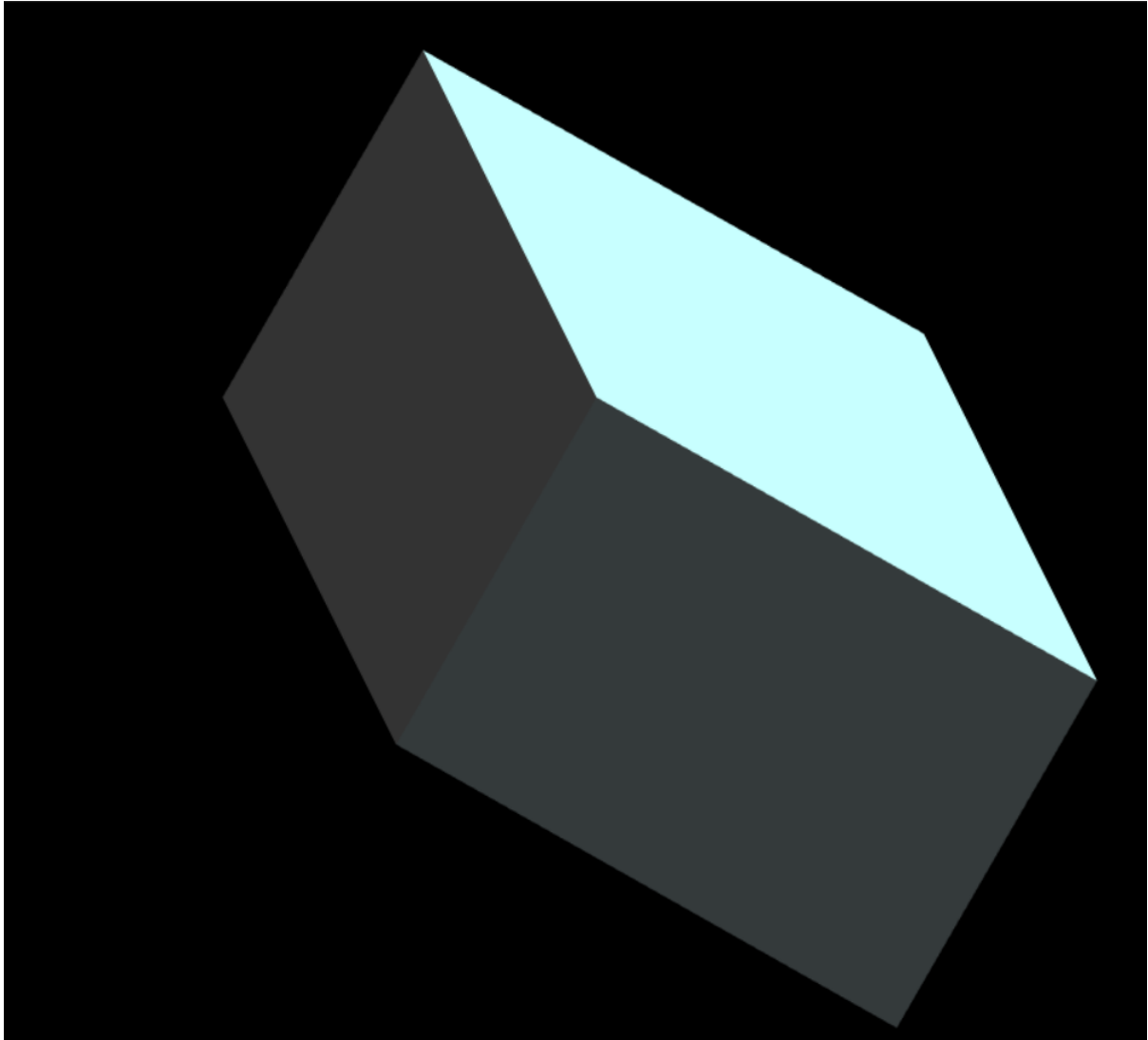
Task 1:

Task 2:

https://chat.openai.com/share/7237905d-668c-42fd-9667-e88e8fd65ee1

Task 3:

https://chat.openai.com/share/3c2f0963-42cc-4e02-ba03-2a7913ecc1e1

This modification uses linear interpolation (lerp) to smoothly transition between the initial and final transformations over the course of the animation. The interpolateMatrices function is a utility function that performs the interpolation between two 4x4 matrices.

Now, when you call getPeriodicMovement(startTime) in your render loop, it will return a matrix that represents the interpolated transformation, creating the desired animation effect. The cube will smoothly transition to the transformation from task 2 in the first 5 seconds and then return to its initial position in the next 5 seconds, repeating the cycle infinitely.

Methodology

In the first task for doing the 3*3 matrix, I looked up in lecture slides and calculate myself. After that, I asked ChatGPT accordingly as TASK 1, TASK 2 and TASK 3.