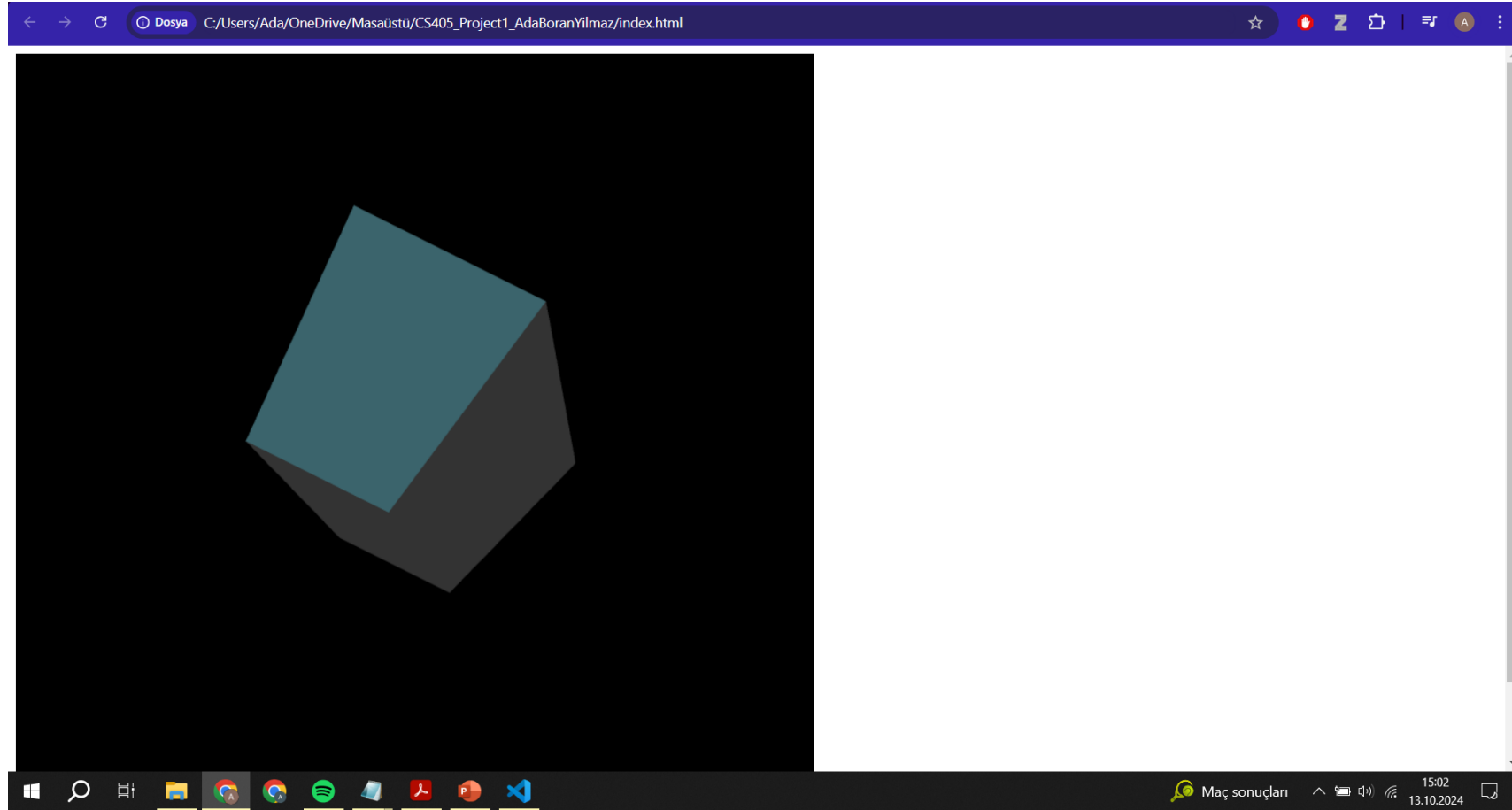


CS405 Project 1

Ada Boran Yılmaz

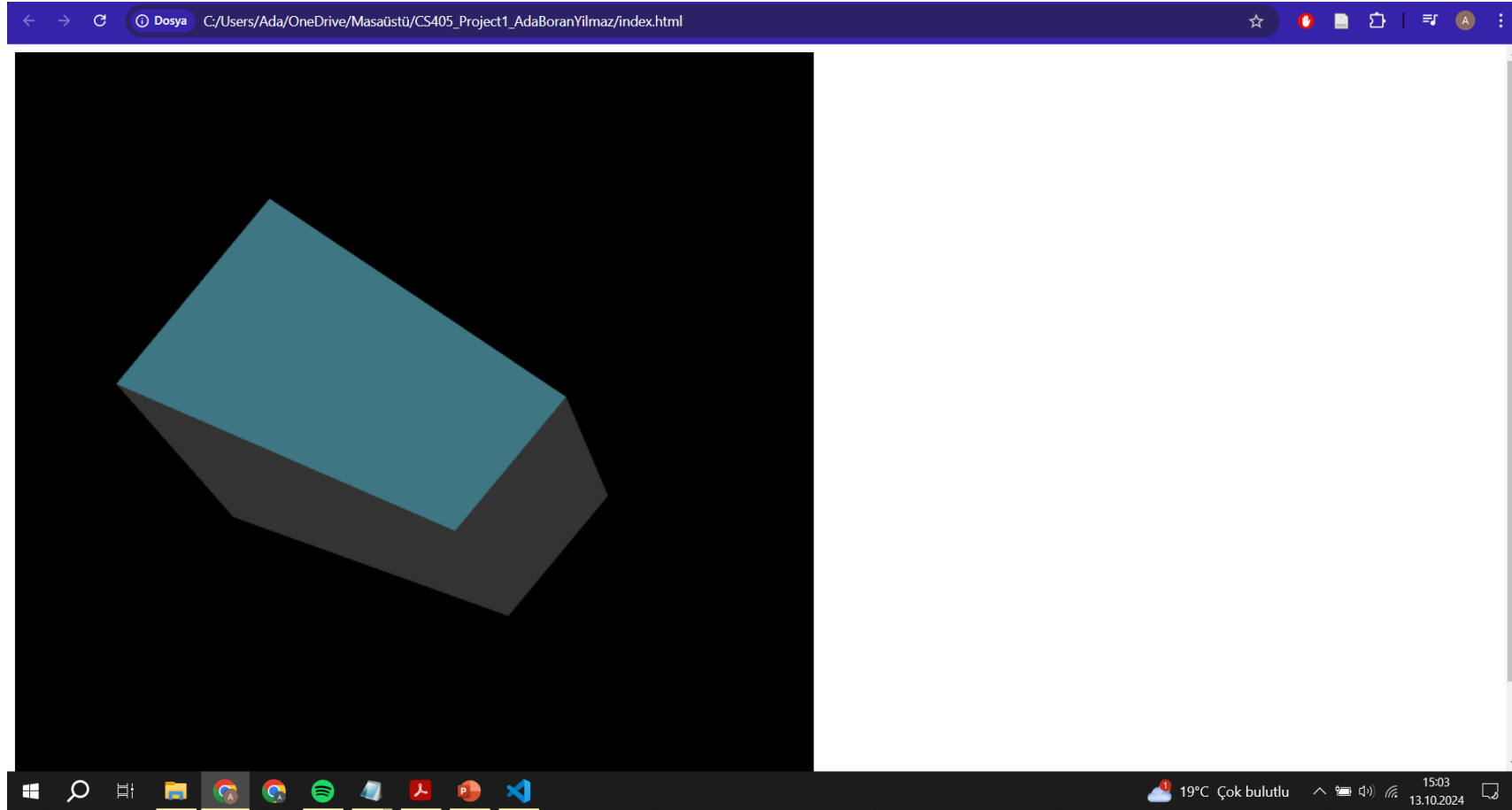
Task 1



Task 1

- This task was done by ChatGPT.
- Created the translation matrix (0.3 units in x, -0.25 units in y).
- Created the scaling matrix (scaling by 0.5 along x and y).
- Created the rotation matrices for 30 degrees on the x-axis, 45 degrees on the y-axis, and 60 degrees on the z-axis.
- Combined the matrices (scaling -> rotations (Z, Y, X) -> translation) to get the final transformation matrix.
- <https://chatgpt.com/share/670bb753-5508-800f-aa4f-95805d947924>

Task 2



Task 2

- The main difference between Task 1 and Task 2 likely stems from the matrix multiplication order or rotation order in Task 1, causing the transformations to be applied in an incorrect sequence.
- In Task 2, I applied the order: scale -> rotate -> translate

Task 3

- Created the `getPeriodicMovement` function to calculate the transformation matrix over the 10 second period.
- Interpolated the translation, scaling, and rotation values smoothly.
- Returned the transformation matrix for each frame to animate the cube.
- <https://chatgpt.com/share/670bb753-5508-800f-aa4f-95805d947924>

Github Link

- https://github.com/adayilmax/CS405_Project1_AdaBoranYilmaz.git