

These past 2 weeks, we have been going through matrices. We have been going through how to multiply matrices with vectors and other matrices. We learned that using a 4d matrix has more advantages than a 3d matrix. We have also learned what the pure matrices are. Translation and Scale of matrices are some of the easier transformation matrices. We know the matrix to Rotate the matrix over the X, Y, and Z axes. We know the pure matrix for orthographics and perspective. Orthographic and Perspective translations are often confused with each other. They are very similar images but very different mechanics.

With perspective matrix, it takes all points of the image and sends it into a single point which simulates an eye. This makes parallel lines look like they are not parallel when the object is further away. Orthographic takes all the points of the image and sends it directly to the screen. It isn't sent to a single point but each point has its own on the screen. This keeps lines parallel and makes the image seem larger than the perspective view.

Our homework assignment these two weeks was making a Matrix4. We had to multiply the 4d matrix by vectors and other matrices. We also had to make the identity matrix which is 1's in a diagonal pattern and 0's for the rest. We had to also make pure matrices for rotation/orthographic/perspective etc. The hardest part of this assignment was multiplying the matrix. I learned how to do matrix multiplication before but I learned it differently and when I saw this way I got really confused. Multiplying the matrix with a vector was easier for me than the two matrices. I eventually figured it out but it took me the longest out of every function.

These two weeks I didn't work with my partner that much because we were just altering the matrix to fit the formulas. I also didn't talk to the TA this week because I felt I didn't need to.

<https://chat.openai.com/share/8d09ee5b-8ac5-4aad-9ed5-56567edc2914>

test-matrix4.html

File | C:/Users/tomko/Documents/GitHub/CST325/Week%206-7/test/test-matrix4.html

Testing makeRotationZ... *Passed*

Testing makeTranslation... *Passed*

Testing makePerspective... *Passed*

Testing makeOrthographic... *Passed*

Tests required to pass to earn an "A"

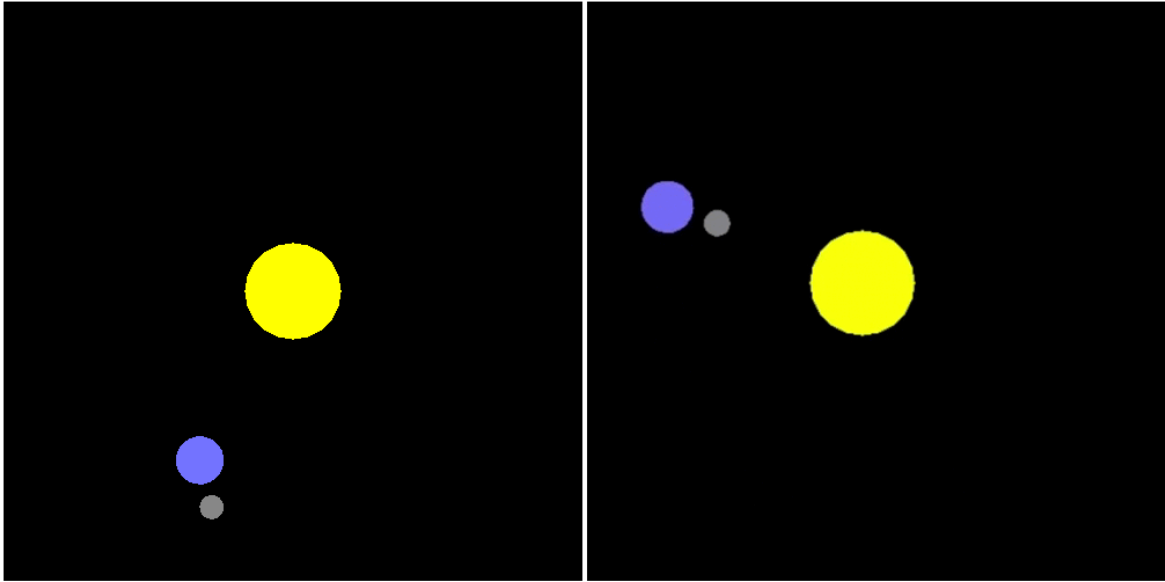
Testing TRS matrix... *Passed*

Testing moon matrix transform... *Passed*

Passed 12 tests out of 12

using your moon matrix

expected result



Live share

Ln 337, Col 4 Spaces: 2