PROJECT 2 DOCUMENTATION

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Test Plan:

In order to ensure that my project meets minimum requirements, I need to test that there are at least 6 different shapes appearing on screen and that they are using 6 different transformations.

**Test number of shapes:**

Image 1 – testing for 6 different shapes:

A picture containing text, kite, flying, colorful

Description automatically generated

* This passes the test for 6 different shapes since there are 6 different shapes present on screen

Test 6 different transformations

Image 1 – 2 Transforms

A picture containing icon

Description automatically generated

* This cube is translated into position and rotating around the z axis

Image 2 – 3 Transforms

Logo

Description automatically generated

* This triangular prism is translated into position, rotating on the x axis, and scaling its x values.

Image 3 – 2 Transforms

Shape

Description automatically generated

* This hextetrahedron (**tetrakis hexahedron) is translated into position and rotated on the x and z axis.**

Image 4 – 4 Transforms

A picture containing sport kite, vector graphics, outdoor object

Description automatically generated

* This spiked cube is translated into position, rotated on the x and y axis, and scaled on the x, y, and z axes.

Image 5 – 4 transforms

A picture containing outdoor object

Description automatically generated

* I grouped these shapes together because they are nearly impossible to capture apart. I wanted them this way so it kind of looks like two retro ships coming at each other.
* The pink pyramid is translated horizontally across the display area and rotated as it is doing so.
* The purple and red spaceship also translates across the display area, but starts further to the right, and scales on all axes to give the allusions that it is flying closer to the viewer as it moves to the right.
* This tests passes because there are more than 6 transformations to get the shapes and animations the way that I wanted.

**Conclusion**

I believe that all project requirements were met to the best of my abilities, and I found the project challenging and fun. It is much different to 3D model things without a program like blender providing an origin reference and allowing users to see what they are doing as they are doing it. I used display lists and reused shapes to create new shapes to try to optimize my program.