REPORT

Step 1:I define three matrix in vertex shader.Projection matrix,view matrix and move matrix viev matrix and move matrix is equal to identity matrix in the begin.I founded a mathematical equation for projection matrix and wrote a projection function for projection.For the step one when we change the 14.element of the view matrix we can adjust the view of the z-axis so if we increase the 14.element shape looks bigger if we decrease the value shape looks smaller.I define a event listener for inputs and then i define a boolean to control input has taken or not.if the input taken i decrease the 14.element value so the shape looks smaller.

Step 2:For the second step i used the move matrix.I wrote a rotate function and a renderloop function for continuous call of the code.I define variables for speed,i call rotate function in the renderloop i calculated the rotate angle for clockwise and counter clockwise i give negative angle for clockwise and used possitive for counterclockwise.And then i define a boolean for input control and use some ifs and elses for adjustment.

Step 3:For the step 3 i define u_time in the fragment shader and i defined color like;
color=color vec4(abs(sin(u_time)),0.0,0.0,1.0);
When i draw in renderloop time is changing and color is changing too.For the input control i defined a boolean again and i took u_time 1 first and called the draw function for color with red color.If user give input three time can change and color is changing continuously.