A picture containing grass, outdoor, sky, plant

Description automatically generatedI chose the following image to be transformed into a 3-dimensional space using openGL.

I selected objects in this scene that are the most prominent to me, as well as ones that would be easily re-creatable, I chose the wall (represented with brown cubes) , the central red tree(represented with an oblong cylinder), the 4 bushes on either side of the wall, the two yellow green ones and the green ones to the sides of them, and the ground plane. Utilizing GLUT really helped as well since it takes a lot of the complicated functionality, The user can navigate around my scene using WASD to go forwards backwards left and right, and Q E to go up and down respectively. I used custom functions in my code instead of just calling the functions themselves, to help me better understand what is being drawn where, this allowed me to reposition my shapes quite well since I knew what was what, utilizing proper naming conventions helped a lot, also since I was using custom functions I could break down functionality a lot more so I can change this shape this way and then do other stuff to other shapes later and not have any of it interfere with each other, I personally feel utilizing GLUT helps in the respect as well, as it further takes instructions from openGL and then I can use simple functions that take parameters and then use those to draw the required shapes. I would say one of the more frustrating things initially was the lack of documentation for openGL, however GLUT has a pretty extensive documentation, it’s not the best but at minimum it’s much better than what I was originally working with.