COMPUTER GRAPHICS

Project Report: 3D objects and implementation

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Introduction:

This project aims to implement the 3D objects with the transformations and the projections. In this project I would initially implement the 2D transformations of the objects with top, front and side views. Later I would apply the transformations like Translating, Rotating, Shearing, and Scaling. This would basically give me the idea of 2D and later apply this knowledge to the creation of the 3D objects. For 3D objects additional features like generating the projections, editing and changing the projections, creating the textures or mappings of the objects will be developed further in the assignments.

Implementation:

In this third Week I added the 3D view of the house object and the different projections of the object Cube. From Perspective Projection I Added the one point, two point, three point projections. From the parallel Perspective I added the Oblique Perspective, Here there are two projections, one at angle 30 – 60 and other at angle 45. I added the html file 3DHouse to the folder of week 3. This page is developed using the svg in JavaScript when this web page is opened this shows the 3D view. For Projections you find the folder Projections and in that I added html files to respective parallel/perspective. These are also developed using the svg and the JavaScript.

To be done:

Remaining Parallel projections are to be added and further 3D viewing of different Objects needs to be implemented.

References:

1. https://www.w3schools.com/graphics/
2. https://stackoverflow.com/
3. https://commons.wikimedia.org/