CS5243 Assignment #4: BSP Tree

I. Introduction

A BSP tree partitions the space and classifies objects in the scene into different BSP tree leaves. It provides a recursive structure that facilitates view frustum culling and collision detection.

II. Requirements

1. Write a BSPTree class based on the tree data structure with methods to partition the space and classify objects.
2. Write a method for the BSPTree class that displays the tree structure.
3. Write a method for the Frustum class that will test which spatial partition is visible before rendering the objects inside that spatial partition.

III. Advanced Option (extra-credit)

1. Implement advanced partitioning techniques to create a BSP tree.

IV. Demonstration

1. To display the scene you build up to now with the BSP tree feature enabled / disabled. Compare the rendering speed under these two situations.