Computer Graphics Fall 2017

Final Project
"Virtual Room Decorator"

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1. Summary

Implement a 3D editor that allows users to decorate a room by adding multiple pieces of furniture and change the material of floor and walls. Users can utilize this program to come up with room furnishing ideas when they want to redecorate their room or move in to a new place. This is a program where numerous 3D features learned in the Computer Graphics course comes into one piece. Moreover, it is an application that shows how the things we have learned in class can be applied in a real-life application.
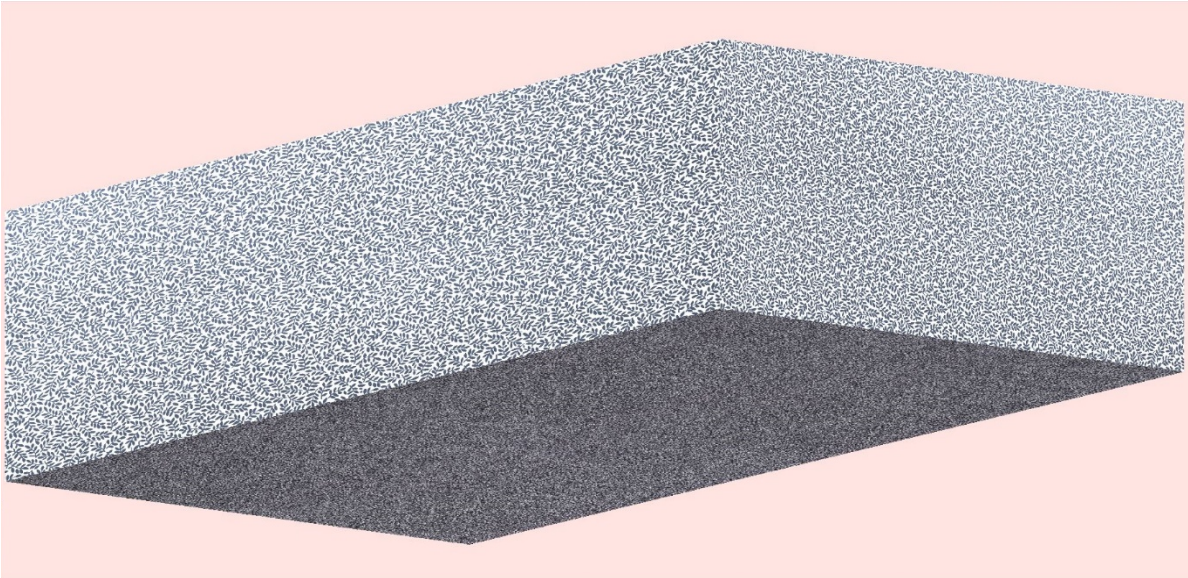
2. Environment

Ubuntu 16.04.3, OpenGL 3.3, GLSL version 150

3. Instructions

A)

To add the floor, press key 'z'.

To add the wall, press key 'x'

B)

To add a table, press key 1.

To make the table size bigger, click on the table and press key '+'

To rotate it, press key '9' or '0' (clockwise and counter-clockwise rotation on the y-axis)

To add a chair, press key '2'

To rotate and scale, click on the chair and use the same keys as for the table.

C)

To see the second type of floor, press key 'a'.

To see the second type of wall, press key 's'.

D)

Rotate the camera using the keys 'j', 'k', 'l', and 'i'.