CSC 470 Computer Graphics Project 2 OpenGL Fall'16

This is a team project not more than 2-3 students per team.

(<u>for each problem</u> submit a <u>printout of the source code</u>, <u>textures and all</u> <u>additional files you used and between 3-5 outputs for each problem</u> as well as <u>all of the above files</u>, <u>exe file</u> and <u>explanations</u> (<u>doc file</u>))

Problem1:

(Max number of points is 50)

Use the attached code for 3DHouse.zip. Recompile it and run it to see how it works (no points for this). Make the following changes:

- **1.** Change all textures to make the house beautiful.
- **2.** Add not less than 3 additional elements to the house.
- **3.** Add lighting and shading.
- 4. Completely change the environment.
- **5.** Make sure that transformations work.

(Max 25 points for the above 1-5)

6. Create a separate bungalow tropic house with appropriate environment, implementing different from above textures, switched on/off lighting from moon and sun, shading, transformations, beach, boat, umbrellas, kiosk whatever you can think about.

(Max 25 points for 6)

NOTE: (1-5) and (6) are completely independent. So, you must have two separate submissions.

Problem 2:

Based on Problem 2 (Prob2.zip):

- 1. Complete your window and curtain by adding the right hand side drape and a curtain rod. The curtain rod can be made by scaling and translating a cylinder in the same way a cube was scaled and translated to make the walls.

 (10 points)
- 2. Add some trimming around the window to make it look more 3D. This could be achieved with more scaled and translated cubes. (15 points)
- 3. Add light, a table with tablecloth and teapot to the scene as well as 2 more additional objects by your choice.

(25 points)