

HACETTEPE UNIVERSITY

DEPARTMENT OF COMPUTER ENGINEERING



Student

Name : Metin

Surname : DEMİR

Student ID : 21526902

Department : Computer Engineering

Homework

PROGRAMMING ASSIGNMENT 5

Subject: : OpenGL shading and lighting

Advisors: Asst. Prof. Ufuk ÇELİKCAN, R. A. Burçak ASAL

Program language: C ++ and OpenGL library

PROBLEM

We have to draw a plane and on it 625 cubes and this all cubes will have texture. Also plane will have a texture too, After that we have to set a “O” keyboard for open and close our spot light. Se mean have to build a spot light too. And this spot light move as camera coordinates.

METHOD AND SOLUTION

In this assignment first all I create my window after that build my camera as previous homework then. Create only a cube vertices. But I need 625 cubes so I just declare two for loop which range is 25 in one for for x axis other one for for z axis coordinates y coordinates value all time is same. And i just translate my cube and draw it again on my plane. After that I done with my plane and 625 cubes. Now order textures and light for textures I build fragment shader and in this fragment shader I set my textures for cubes and plane Then create my light in fragment shader. And set value the light with gluniform . for moving the light I set camera position and camera front. Then I create a “O” keyboard for open light and close it again. But I could not success per vertex and per pixel shading .

In this assignment I learn how I can build light and draw multiple object in my window.