

```

#include <iostream>           //Only for windows
#include <stdlib.h>          //Needed for "exit" function
#include <GL/glut.h>        //Include OpenGL header files, so that we can use OpenGL

using namespace std;

//Called when a key is pressed
void handleKeyPress( unsigned char key,      //The key that was pressed
                    int x, int y) {        //The current mouse coordinates
    switch (key) {
        case 27: //Escape key
            exit(0); //Exit the program
    }
}

//Initializes 3D rendering
void initRendering() { //Makes 3D drawing work when something is in front of something else
    glEnable(GL_DEPTH_TEST);
}

//Called when the window is resized
void handleResize(int w, int h) { //Tell OpenGL how to convert from coordinates to pixel values
    glViewport(0, 0, w, h);
    glMatrixMode(GL_PROJECTION); //Switch to setting the camera perspective
    glLoadIdentity();           //Reset the camera
    gluPerspective( 45.0,       //The camera angle
                  (double)w / (double)h, //The width-to-height ratio
                  1.0,         //The near z clipping coordinate
                  200.0);     //The far z clipping coordinate
    glMatrixMode(GL_MODELVIEW); //Switch to the drawing perspective
    glLoadIdentity();         //Reset the drawing perspective
}

//Draws the 3D scene
void drawScene() { //void RenderFunction()
    //Clear information from last draw
    glClear(GL_COLOR_BUFFER_BIT | GL_DEPTH_BUFFER_BIT);
    glMatrixMode(GL_MODELVIEW); //Switch to the drawing perspective
    glLoadIdentity();          //Reset the drawing perspective

    //*****WRITE HERE YOUR CODE*****

    glutSwapBuffers(); //Send the 3D scene to the screen
    glutPostRedisplay();
}

int main(int argc, char** argv) {
    glutInit(&argc, argv); //Initialize GLUT
    glutInitDisplayMode(GLUT_DOUBLE | GLUT_RGB | GLUT_DEPTH);
    glutInitWindowSize(400, 400); //Set the window size

    glutCreateWindow("Basic Window"); //Create the window
    initRendering(); //Initialize rendering

    //Set handler functions for drawing, keypresses, . . . window resizes
    glutDisplayFunc(drawScene);
    glutKeyboardFunc(handleKeyPress);
    glutMouseFunc(mouse);
    glutSpecialFunc(handleSpecialKeyPress);
    glutReshapeFunc(handleResize);

    glutMainLoop(); //Start the main loop. glutMainLoop doesn't return.
    return 0; //This line is never reached
}

```