**Course Code: CSE 412**

**Computer Graphics**

**Name: Raihan Munim**

**ID: 181400138**

**Code:**

**#include <time.h>**

**#include <windows.h>**

**#ifdef \_\_APPLE\_\_**

**#include <GLUT/glut.h>**

**#else**

**#include <GL/glut.h>**

**#endif**

**#include <stdio.h>**

**float x1\_position = -100.0, x2\_position = -100.0; // position altered so they appear**

**// one after another.**

**void display()**

**{**

**glClear(GL\_COLOR\_BUFFER\_BIT);**

**glLoadIdentity();**

**glTranslatef( x1\_position, 0.0, 0.0);**

**glBegin(GL\_POLYGON);**

**glColor3ub (74, 35, 90);**

**glVertex3f (-70, -27, 0.0);**

**glVertex3f (-10, -27, 0.0);**

**glColor3ub (155, 89, 182);**

**glVertex3f (-40, 40, 0.0);**

**glEnd();**

**glLoadIdentity();**

**glTranslatef( x2\_position, 0.0, 0.0);**

**glBegin(GL\_POLYGON);**

**glColor3ub (127, 179, 213);**

**glVertex3f (40, -50, 0.0);**

**glVertex3f (70, 7, 0.0);**

**glColor3ub (41, 128, 185);**

**glVertex3f (10, 7, 0.0);**

**glEnd();**

**glutSwapBuffers();**

**}**

**void reshape(int w, int h)**

**{**

**glViewport(0, 0, w, h);**

**glMatrixMode(GL\_PROJECTION);**

**glLoadIdentity();**

**gluOrtho2D(-100, 100, -100, 100);**

**glMatrixMode(GL\_MODELVIEW);**

**}**

**void initOpenGL()**

**{**

**glClearColor(1.0, 1.0, 1.0, 1.0);**

**}**

**void timer(int)**

**{**

**glutPostRedisplay();**

**glutTimerFunc(1000/60, timer, 0);**

**if (x1\_position > 49)**

**x1\_position = 50;**

**else x1\_position += 0.5;**

**if (x2\_position > -40)**

**x2\_position = -30;**

**else x2\_position += 0.5;**

**}**

**int main(int argc, char \*\*argv)**

**{**

**glutInit(&argc, argv);**

**glutInitDisplayMode(GLUT\_DOUBLE | GLUT\_RGBA | GLUT\_DEPTH);**

**glutInitWindowSize(500, 500);**

**glutInitWindowPosition(500, 100);**

**glutCreateWindow("181400138 Gradient star");**

**initOpenGL();**

**glutDisplayFunc(display);**

**glutReshapeFunc(reshape);**

**glutTimerFunc(0, timer, 0);**

**//void glutTimerFunc(unsigned int numMilliseconds, functionCallback, value);**

**glutMainLoop();**

**return 0;**

**}**

**Screenshot:**

