Lab Report - 2

Course Code : CSE 412

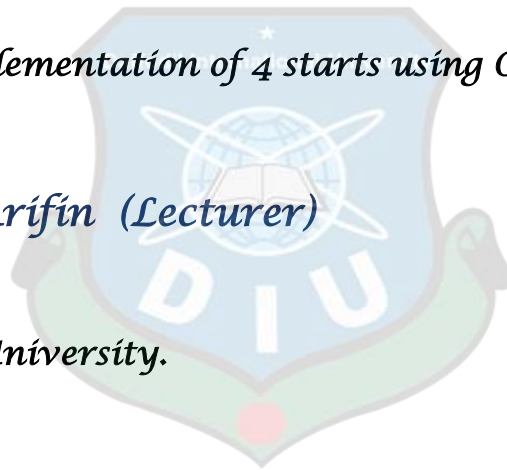*Course Title : Computer Graphics Lab*

Experiment No : 01

Experiment Name : Implementation of 4 starts using OpenGL

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Lab Report: 02

Implementation of 4 starts using OpenGL
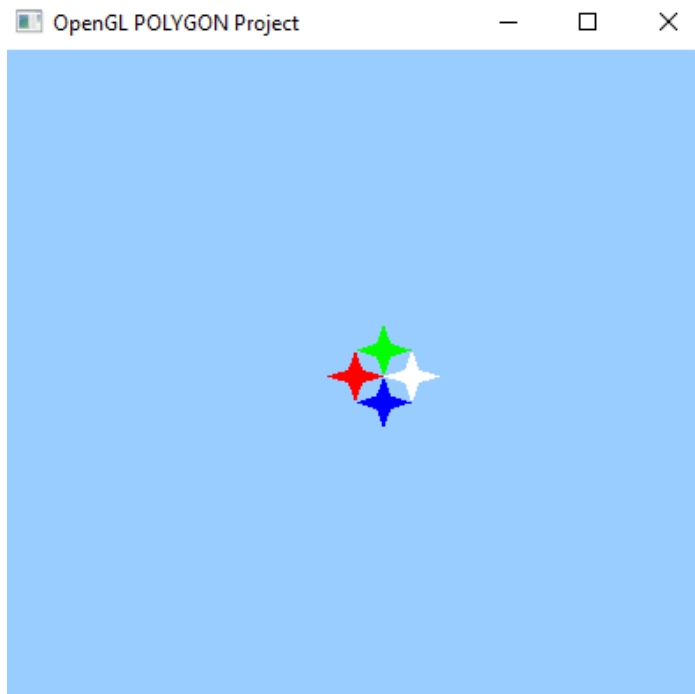
Title: Drawing Multiple Polygons Using OpenGL

Introduction:

In this project, multiple polygons are drawn using OpenGL. Different colors are used to show each polygon clearly.

Contents:

- **Functions Used:** `glBegin(), glVertex2f(), glColor3f(), glEnd()`
- **Shape Used: Polygon**

Graph:

Draw X and Y axis and sketch several polygon shapes placed around the screen.

Code (Drawing Portion Only):

```
glColor3f(1.0, 0.0, 0.0);
 glPointSize(5);
 glBegin(GL_POLYGON);
     glVertex2f(0,0);
     glVertex2f(0,8);
     glVertex2f(2,2);
     glVertex2f(8,0);
     glVertex2f(2,-2);
     glVertex2f(0,-8);
     glVertex2f(-2,-2);
     glVertex2f(-8,0);
     glVertex2f(-2,2);
     glVertex2f(0,8);
 glEnd();

 glColor3f(0.0, 1.0, 0.0);
 glBegin(GL_POLYGON);
     glVertex2f(8,8);
     glVertex2f(8,16);
     glVertex2f(10,10);
     glVertex2f(16,8);
     glVertex2f(10,6);
     glVertex2f(8,0);
     glVertex2f(6,6);
     glVertex2f(0,8);
     glVertex2f(6,10);
     glVertex2f(8,16);
```

```
glEnd();


glColor3f(1.0, 1.0, 1.0);
glBegin(GL_POLYGON);
    glVertex2f(16,0);
    glVertex2f(16,8);
    glVertex2f(18,2);
    glVertex2f(24,0);
    glVertex2f(18,-2);
    glVertex2f(16,-8);
    glVertex2f(14,-2);
    glVertex2f(8,0);
    glVertex2f(14,2);
    glVertex2f(16,8);
glEnd();


glColor3f(0.0, 0.0, 1.0);
glBegin(GL_POLYGON);
    glVertex2f(8,-8);
    glVertex2f(8,0);
    glVertex2f(10,-6);
    glVertex2f(16,-8);
    glVertex2f(10,-10);
    glVertex2f(8,-16);
    glVertex2f(6,-10);
    glVertex2f(0,-8);
```

```
        glVertex2f(6,-6);

        glVertex2f(8,0);

    glEnd();


    glFlush();
```

Discussion:

The task was to draw multiple polygons. I used the `GL_POLYGON` function and different colors to create several shapes.