Lab Report

Course Title: Computer Graphics Lab

Course Code: CSE422

Name of the Report: Animation of 2D project

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Code:

```
#include <windows.h>
#include <GL/gl.h>
#include <GL/glut.h>

float p = -20;
bool flag = true;
void display(void)
{
    glClear(GL_COLOR_BUFFER_BIT);



    if (p > 12)flag = !flag;
    if (p <= -25) flag = !flag;



    if (flag)p += 0.005;
    else p -= 0.005;


    // if (p <= 12)p += 0.005;
    // else p = -20;


    // if (p >= -20)
    //    p -= 0.0005;
    // else
    //    p = 12;


    glutPostRedisplay();


    glBegin(GL_POLYGON);
    //glColor3f(.1, .06, .75);
    glColor4f(0.0f, 0.90f, 1.0f, 1.0f);
```

```
    glVertex2f(p + 3, 7);

    glVertex2f(p - 1, 7);

    glVertex2f(p - 1, 11);

    glVertex2f(p + 3, 11);

    glEnd();


    glBegin(GL_POLYGON);

    glColor3f(1.0, 1.0, 1.0);

    glVertex2f(p + 3, 8.5);

    glVertex2f(p - 1, 8.5);

    glVertex2f(p - 1, 9.5);

    glVertex2f(p + 3, 9.5);

    glEnd();


    glBegin(GL_POLYGON);

    glColor3f(0.9, 0.2, 0.5);

    glVertex2f(p + 2, 3);

    glVertex2f(p + 3, 3);

    glVertex2f(p + 3, 7);

    glVertex2f(p + 2, 7);

    glEnd();


    glBegin(GL_POLYGON);

    glColor3f(0.0, 0.8, 0.5);

    glVertex2f(p, -3);

    glVertex2f(p + 5, -3);

    glVertex2f(p + 7, 3);

    glVertex2f(p - 2, 3);

    glEnd();


    glFlush();
}
void init(void)
{
```

```
    glClearColor(0.0, 0.0, 0.0, 0.0);

    glMatrixMode(GL_PROJECTION);

    glLoadIdentity();

    gluOrtho2D(-20, 15, -20, 15);

}

int main(int argc, char** argv)

{

    glutInit(&argc, argv);

    glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB);

    glutInitWindowSize(600, 600);

    glutInitWindowPosition(100, 100);

    glutCreateWindow("Sayed MD Towaha 192-15-13126");

    init();

    glutDisplayFunc(display);

    glutMainLoop();

    return 0;

}
```

Output: