



Daffodil
International
University

Lab Report

Course Title: Computer Graphics Lab

Course Code: CSE422

Name of the Report: Animation of 2D project

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Date of Submission: 11/13/2022

Code:

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

#include <GL/glut.h>

#include <gl/Glu.h>


static float tx = 0.0;

static float ty = 0.0;

float angle = 0.0;


void init(void)

{

    glClearColor(1.0f, 1.0f, 1.0f, 0.0f);

    glOrtho(-100.0, 100.0, -100.0, 100.0, -1.0, 1.0);

}


void spin_left()

{

    angle = angle + .9;

    glutPostRedisplay();

}


void spin_null()

{

    angle = NULL;

    glutPostRedisplay();

}


void display(void)

{

    glClear(GL_COLOR_BUFFER_BIT);

    glPushMatrix();
```

```
glColor3f(0.0f, 0.0f, 0.0f);
```

```
glTranslated(tx, ty, 0);
```

```
glRotatef(angle, 0, 0, 1);
```

```
glRectf(-55.0, -15.0, 55.0, 15.0);
```

```
glColor3f(0.0f, 0.0f, 0.0f);
```

```
glRectf(-15.0, -55.0, 15.0, 55.0);
```

```
glColor3f(0.0f, 0.0f, 0.0f);
```

```
glRectf(-9.0, -65.0, 9.0, 65.0);
```

```
glRectf(-65.0, -9.0, 65.0, 9.0);
```

```
glColor3f(1.0f, 1.0f, 0.6f);
```

```
glRectf(-15.0, -15.0, 15.0, 15.0);
```

```
glPopMatrix();
```

```
glFlush();
```

```
}
```

```
void spe_key(int key, int x, int y)
```

```
{
```

```
switch (key) {
```

```
case GLUT_KEY_LEFT:
```

```
tx -= 5;
```

```
glutPostRedisplay();
```

```
break;
```

```
case GLUT_KEY_RIGHT:
```

```
tx += 5;
```

```
glutPostRedisplay();
```

```
break;
```

```
case GLUT_KEY_DOWN:
```

```
    ty -= 5;
```

```
    glutPostRedisplay();
```

```
    break;
```

```
case GLUT_KEY_UP:
```

```
    ty += 5;
```

```
    glutPostRedisplay();
```

```
    break;
```

```
default:
```

```
    break;
```

```
}
```

```
}
```

```
void my_mouse(int button, int state, int x, int y)
```

```
{
```

```
    switch (button) {
```

```
case GLUT_LEFT_BUTTON:
```

```
    if (state == GLUT_DOWN)
```

```
        glutIdleFunc(spin_left);
```

```
    break;
```

```
case GLUT_RIGHT_BUTTON:
```

```
    if (state == GLUT_DOWN)
```

```
        glutIdleFunc(spin_left);
```

```
    break;
```

```
default:
```

```
    break;
```

```
}
```

```
}
```

```
int main(int argc, char** argv)
{

    glutInit(&argc, argv);
    glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB);
    glutInitWindowSize(600, 600);
    glutInitWindowPosition(100, 100);
    glutCreateWindow("Sayed MD Towaha");
    init();
    glutDisplayFunc(display);
    glutSpecialFunc(spe_key);
    glutMouseFunc(my_mouse);


    glutMainLoop();
    return 0;
}
```

Output:

