Date : 9/03/21

**#include <windows.h>**

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

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

**#else**

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

**#endif**

**#include <stdlib.h>**

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

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

**#include <math.h>**

**using namespace std;**

**void square(float a,float b,float c,float d){**

**glBegin(GL\_QUADS);**

**glVertex2f(a,b);**

**glVertex2f(c,b);**

**glVertex2f(c,d);**

**glVertex2f(a,d);**

**glEnd();**

**}**

**void tri(float a,float b,float c,float d,float e){**

**glBegin(GL\_TRIANGLES);**

**glVertex2f(a,b);**

**glVertex2f(c,b);**

**glVertex2f(d,e);**

**glEnd();**

**}**

**void circle(float a,float b,float d){**

**glLoadIdentity();**

**glMatrixMode(GL\_MODELVIEW);**

**glTranslatef(a, b, 0.0f);**

**glPushMatrix();**

**glBegin(GL\_POLYGON);**

**for(int i=0;i<200;i++){**

**float pi=3.1416;**

**float A=(i\*2\*pi)/100;**

**float r=d;**

**float x = r \* cos(A);**

**float y = r \* sin(A);**

**glVertex2f(x,y);**

**}**

**glPopMatrix();**

**glEnd();**

**}**

**void lshape(){**

**glBegin(GL\_POLYGON);**

**glColor4f(1.0f, 0.0f, 0.0f, 0.0f);**

**glVertex2f(-0.15f, -0.3f);**

**glVertex2f(0.25f, -0.3f);**

**glVertex2f(0.25f, -0.2f);**

**glVertex2f(0.0f, -0.2f);**

**glVertex2f(0.0f, 0.2f);**

**glVertex2f(-0.15f, 0.2f);**

**glEnd();**

**}**

**void circleshape(){**

**glLoadIdentity();**

**glMatrixMode(GL\_MODELVIEW);**

**glTranslatef(0.0, 0.0, 0.0f);**

**glPushMatrix();**

**glColor4f(1.0f, 1.0f, 0.0f, 0.0f);**

**circle(0.4,-0.1,0.18);**

**glEnd();**

**glPopAttrib();**

**}**

**void barshape(){**

**glColor4f(1.0f, 0.5f, 0.0f, 0.0f);**

**square(-0.9,-0.5,0.9,-0.4);**

**}**

**void squareshape(){**

**glColor4f(1.0f, 0.0f, 0.0f, 0.0f);**

**square(-0.4,-0.3,-0.25,0.2);**

**}**

**void triangleshape(){**

**glColor4f(0.0f, 1.0f, 1.0f, 1.0f);**

**tri(-0.9,-0.4,0.9,0.0,0.8);**

**}**

**void display(void){**

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

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

**glLoadIdentity();**

**glMatrixMode(GL\_MODELVIEW);**

**glTranslatef(0.0, 0.0, 0.0f);**

**glPushMatrix();**

**barshape();**

**triangleshape();**

**squareshape();**

**lshape();**

**glLoadIdentity();**

**glMatrixMode(GL\_MODELVIEW);**

**glTranslatef(0.0, 0.0, 0.0f);**

**glPushMatrix();**

**circleshape();**

**glPopAttrib();**

**glEnd();**

**glFlush ();**

**}**

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

**{**

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

**glutInitWindowSize (1000, 1000);**

**glutCreateWindow ("Lab Evaluation");**

**glutDisplayFunc(display);**

**glutMainLoop();**

**return 0;**

**}**

