

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

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

```
#include <windows.h>
```

```
#include <math.h>
```

```
void init(void) {
```

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

```
    glMatrixMode(GL_PROJECTION);
```

```
    glLoadIdentity();
```

```
    gluOrtho2D(0.0, 100.0, 0.0, 100.0);
```

```
}
```

```
void circle(GLfloat rx, GLfloat ry, GLfloat cx, GLfloat cy) {
```

```
    glBegin(GL_TRIANGLE_FAN);
```

```
    glVertex2f(cx, cy);
```

```
    for (int i = 0; i <= 100; i++) {
```

```
        float angle = 2.0f * 3.1416f * i / 100;
```

```
        float x = rx * cosf(angle);
```

```
        float y = ry * sinf(angle);
```

```
        glVertex2f((x + cx), (y + cy));
```

```
    }
```

```
    glEnd();
```

```
}
```

```
void Draw() {
```

```
    glClear(GL_COLOR_BUFFER_BIT);
```

```
    glColor3f(0.4, 0.8, 1.0);
```

```
    glBegin(GL_POLYGON);
```

```
    glVertex2f(10, 10);
```

```
glVertex2f(70, 10);
glVertex2f(70, 25);
glVertex2f(10, 25);
glEnd();

glColor3f(1.0, 1.0, 1.0);
glBegin(GL_POLYGON);
glVertex2f(10, 25);
glVertex2f(70, 25);
glVertex2f(70, 40);
glVertex2f(10, 40);
glEnd();

glColor3f(1.0, 0.7, 0.1);
circle(4, 4, 40, 32);

glPushMatrix();
glColor3f(0.0, 0.0, 0.0);
circle(1.1, 0.8, 41.5, 33);
glColor3f(0.0, 0.0, 0.0);
circle(1.1, 0.8, 38.5, 33);
glColor3f(0.0, 0.0, 0.0);
circle(1.1, 0.8, 40, 30);
glPopMatrix();

glColor3f(0.4, 0.8, 1.0);
glBegin(GL_POLYGON);
glVertex2f(10, 40);
glVertex2f(70, 40);
glVertex2f(70, 55);
glVertex2f(10, 55);
glEnd();

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

```
glBegin(GL_POLYGON);
glVertex2f(39, 31);
glVertex2f(41, 31);
glVertex2f(40, 33);
glEnd();
glColor3f(1.0, 0.7, 0.1);
glBegin(GL_LINES);
glVertex2f(42, 35);
glVertex2f(47, 35);
glEnd();
glBegin(GL_LINES);
glVertex2f(43.5, 32);
glVertex2f(48.5, 32);
glEnd();
glBegin(GL_LINES);
glVertex2f(43, 29);
glVertex2f(48, 29);
glEnd();
glBegin(GL_LINES);
glVertex2f(41, 36);
glVertex2f(41, 39);
glEnd();
glBegin(GL_LINES);
glVertex2f(38, 35);
glVertex2f(38, 39);
glEnd();
glBegin(GL_LINES);
glVertex2f(37, 35);
glVertex2f(32, 35);
```

```

    glEnd();

    glBegin(GL_LINES);

    glVertex2f(36, 32);
    glVertex2f(32, 32);

    glEnd();

    glBegin(GL_LINES);

    glVertex2f(37, 29);
    glVertex2f(32, 29);

    glEnd();

    glBegin(GL_LINES);

    glVertex2f(38, 29);
    glVertex2f(38, 25);

    glEnd();

    glBegin(GL_LINES);

    glVertex2f(42, 29);
    glVertex2f(42, 25);

    glEnd();

    glutSwapBuffers();
}

int main(int argc, char** argv) {
    glutInit(&argc, argv);

    glutInitDisplayMode(GLUT_RGB | GLUT_DOUBLE);

    glutInitWindowPosition(0, 0);

    glutInitWindowSize(500, 500);

    glutCreateWindow("Argentina Flag");

    init();

    glutDisplayFunc(Draw);

    glutMainLoop();
}

```

```
return 0;
```

```
}
```