#include <iostream>

#include <gl/freeglut.h>

void init()

{

glClearColor(0.0, 0.0, 0.0, 0.0);

glPointSize(50.0);

glShadeModel(GL\_FLAT);

}

void display()

{

glClear(GL\_COLOR\_BUFFER\_BIT);

glBegin(GL\_TRIANGLES);

glColor3f(1.0, 0.0, 0.0);

glVertex2i(1, 0);

glVertex2i(0, 0);

glVertex2i(0, 1);

glEnd();

glPointSize(1.0);

glColor3f(1, 1, 1);

glBegin(GL\_POINTS);

for (int i = 0; i < 1000; ++i)

{

glVertex3f(cos(2 \* 3.14159 \* i / 1000.0)\*0.4, sin(2 \* 3.14159 \* i / 1000.0)\*0.4, 0);

}

glEnd(); glFlush();

}

int meniu\_1, meniu\_2, meniu\_3, meniu\_main;

void meniu\_principal(int key)

{

if (key == 0)

{

exit(0);

}

}

void callback\_1(int key)

{

switch (key)

{

case 0:

printf("Cerc 1\n");

break;

case 1:

printf("Cerc 2\n");

break;

}

}

void callback\_2(int key)

{

switch (key)

{

case 0:

printf("Ati selectat dreptunghi 1\n");

break;

case 1:

printf("Ati selectat dreptunghi 2\n");

break;

}

}

void callback\_3(int key)

{

switch (key)

{

case 0:

printf("Ati selectat triunghi 1\n");

break;

case 1:

printf("Ati selectat triunghi 2\n");

break;

}

}

GLint x = 10;

GLint y = 20;

GLint WindowWidth = 400;

GLint WindowHight = 400;

void mouseHandler(int button, int state, int mouse\_x, int mouse\_y)

{

if (button == GLUT\_LEFT\_BUTTON && state == GLUT\_DOWN)

{

x = mouse\_x;

y = WindowHight - mouse\_y;

glColor3f(1, 0, 0);

glBegin(GL\_POINTS);

glVertex2i(x, y);

printf("x=%d , y=%d \n", x, y);

glEnd();

glFlush();

glClear(GL\_COLOR\_BUFFER\_BIT);

}

}

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

{

glutInit(&argc, argv);

glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);

glutInitWindowSize(400, 400);

glutInitWindowPosition(400, 100);

glutCreateWindow("aplicatii 09.11.2022");

init();

glutMouseFunc(mouseHandler);

glutDisplayFunc(display);

meniu\_1 = glutCreateMenu(callback\_1);

glutAddMenuEntry("cerc1", 0);

glutAddMenuEntry("cerc2", 1);

meniu\_2 = glutCreateMenu(callback\_2);

glutAddMenuEntry("dreptunghi1", 0);

glutAddMenuEntry("dreptunghi2", 1);

meniu\_3 = glutCreateMenu(callback\_3);

glutAddMenuEntry("triunghi1", 0);

glutAddMenuEntry("triunghi2", 1);

meniu\_main = glutCreateMenu(meniu\_principal);

glutAddSubMenu("cerc", meniu\_1);

glutAddSubMenu("patrat", meniu\_2);

glutAddSubMenu("triunghi", meniu\_3);

glutAddMenuEntry("Exit", 0);

glutAttachMenu(GLUT\_RIGHT\_BUTTON);

glutMainLoop();

return 0;

}