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/* program to draw erasable rectangle */

#include<windows.h>
#include<GL/glut.h>
float xm,ym,xmm,ymm;

void display()
{
    glClearColor(1.0,1.0,1.0,1.0);
    glClear(GL_COLOR_BUFFER_BIT);
    glEnable(GL_COLOR_LOGIC_OP);
}

void myMouse(int btn, int state, int x, int y)
{
    if(btn==GLUT_LEFT_BUTTON && state==GLUT_DOWN)
    {
        xm=x;
        ym=(500-y);
        glColor3f(0.0,0.0,1.0);
        glLogicOp(GL_XOR);
    }
    if(btn==GLUT_LEFT_BUTTON && state==GLUT_UP)
    {
        xmm=x;
        ymm=(500-y);
        glLogicOp(GL_XOR);
        glRectf(xm,ym,xmm,ymm);
        glFlush();
    }
}

void reshape(GLsizei w, GLsizei h)
{
    glMatrixMode(GL_PROJECTION);
    glLoadIdentity();
    gluOrtho2D(0,500,0,500);
    glMatrixMode(GL_MODELVIEW);
}

int main(int argc, char **argv)
{
    glutInit(&argc, argv);
    glutInitDisplayMode(GLUT_SINGLE|GLUT_DEPTH|GLUT_RGB);
    glutInitWindowSize(500,500);
    glutInitWindowPosition(100,100);
    glutCreateWindow("erasable lines");
    glutDisplayFunc(display);
    glutReshapeFunc(reshape);
    glutMouseFunc(myMouse);
    glutMainLoop();
}
```

```
/* Program to draw erasable lines*/

#include<windows.h>
#include<GL/glut.h>
float xm,ym,xmm,ymm;
void display()
{
    glClearColor(1.0,1.0,1.0,1.0);
    glClear(GL_COLOR_BUFFER_BIT);
    glEnable(GL_COLOR_LOGIC_OP);
}
void myMouse(int btn, int state, int x, int y)
{
    if(btn==GLUT_LEFT_BUTTON && state==GLUT_DOWN)
    {
        xm=x;
        ym=(500-y);
        glColor3f(0.0,0.0,1.0);
        glLogicOp(GL_XOR);
    }
    if(btn==GLUT_LEFT_BUTTON && state==GLUT_UP)
    {
        glColor3f(0.0,1.0,0.0);
        xmm=x;
        ymm=(500-y);
        glLogicOp(GL_XOR);
        glBegin(GL_LINES);
        glVertex2f(xm,ym);
        glVertex2f(xmm,ymm);
        glEnd();
        glFlush();
    }
}
void reshape(GLsizei w, GLsizei h)
{
    glMatrixMode(GL_PROJECTION);
    glLoadIdentity();
    gluOrtho2D(0,500,0,500);
    glMatrixMode(GL_MODELVIEW);
}
int main(int argc, char **argv)
{
    glutInit(&argc, argv);
    glutInitDisplayMode(GLUT_SINGLE|GLUT_DEPTH|GLUT_RGB);
    glutInitWindowSize(500,500);
    glutInitWindowPosition(100,100);
    glutCreateWindow("erasable lines");
    glutDisplayFunc(display);
    glutReshapeFunc(reshape);
    glutMouseFunc(myMouse);
    glutMainLoop();
}
```

```
/* Program on Mouse motion event */

#include<windows.h>
#include<GL/glut.h>
float xm,ym,xmm,ymm;
int first=0;
void display()
{
    glClearColor(1.0,1.0,1.0,1.0);
    glClear(GL_COLOR_BUFFER_BIT);
    glEnable(GL_COLOR_LOGIC_OP);
}
void myMouse(int btn, int state, int x, int y)
{
    if(btn==GLUT_LEFT_BUTTON && state==GLUT_DOWN)
    {
        xm=x;
        ym=(500-y);
        glColor3f(0.0,1.0,1.0);
        glLogicOp(GL_XOR);
        first=1;
    }
}
void Move(int x, int y)
{
    if(first==1)
    {
        xmm=x;
        ymm=500-y;
        glBegin(GL_LINES);
        glVertex2f(xm,ym);
        glVertex2f(xmm,ymm);
        glEnd();
        glFlush();
    }
}
void reshape(GLsizei w, GLsizei h)
{
    glMatrixMode(GL_PROJECTION);
    glLoadIdentity();
    gluOrtho2D(0,500,0,500);
    glMatrixMode(GL_MODELVIEW);
}
int main(int argc, char **argv)
{
    glutInit(&argc, argv);
    glutInitDisplayMode(GLUT_SINGLE|GLUT_DEPTH|GLUT_RGB);
    glutInitWindowSize(500,500);
    glutInitWindowPosition(100,100);
    glutCreateWindow("erasable lines");
    glutDisplayFunc(display);
    glutReshapeFunc(reshape);
    glutMouseFunc(myMouse);
    glutMotionFunc(Move);
    glutMainLoop();
}
```