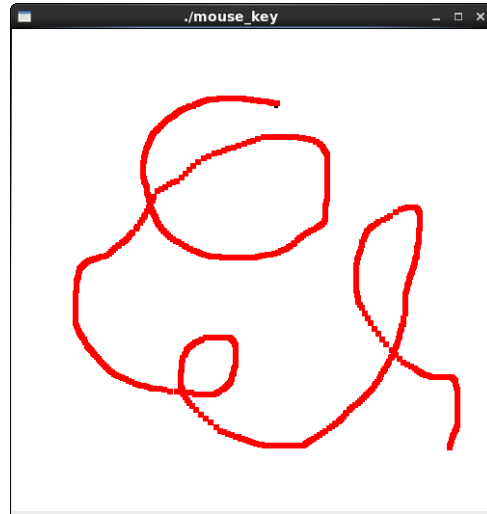
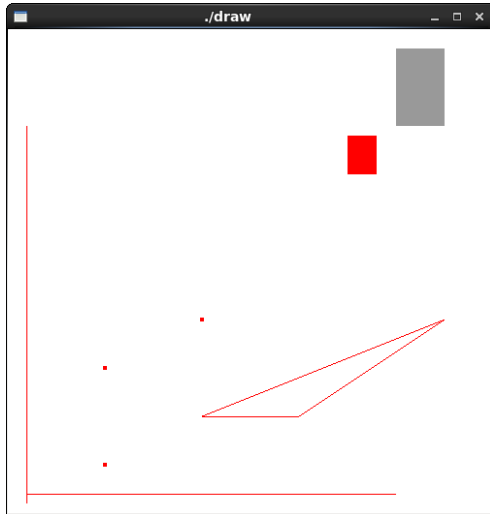
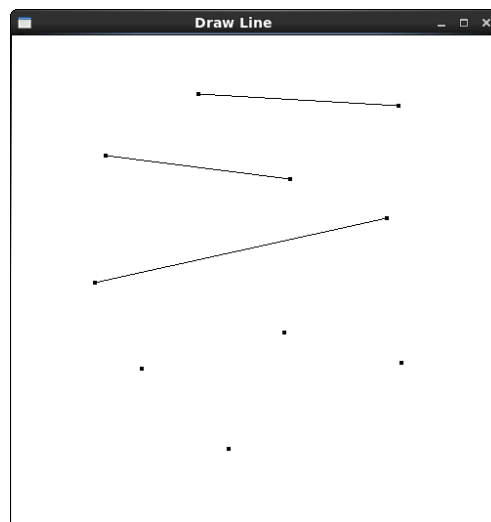


Yazhuo Liu
Lab 1

Make a new directory called lab1. Compile and run the programs draw.cpp and mouse_key.cpp presented at the [Introduction](#) section.



Write a program that displays points at the positions that you've clicked the mouse and draws line segments that connect the points. Pressing the key 'o' toggles this feature on and off and pressing 'ESC' exits the program.



Code:

```
...
void drawDot( int x, int y )
{
    glBegin( GL_POINTS );
    glVertex2i( x, y );    //draw a point
    glEnd();
} //drawDot
```

```

void drawLine ( int x1, int y1, int x2, int y2 )
{
    glBegin( GL_LINES );
    glVertex2i ( x1, y1 );
    glVertex2i ( x2, y2 );
    glEnd();
}

void myMouse( int button, int state, int x, int y )
{
    static int count = 0;
    static int x1 = 0, y1 = 0, x2 = 0, y2 = 0;

    if ( button == GLUT_LEFT_BUTTON && state == GLUT_DOWN ) {
        drawDot( x, screenHeight - y );
        if (can_draw) {
            if ( count++ % 2 == 0 ) {
                x1 = x;
                y1 = screenHeight - y;
            } else {
                x2 = x;
                y2 = screenHeight - y;
                drawLine ( x1, y1, x2, y2 );
            }
        }
    }
    glFlush(); //send all output to screen
}

void myKeyboard ( unsigned char key, int mouseX, int mouseY )
{
    switch( key )
    {
        case 'o':
            if (can_draw) can_draw = false;
            else if (!can_draw) can_draw = true;
            break;
        case 27:
            exit (0);
            break;
        default :
            break;
    }
}
...

```

Report:

I successfully completed the lab.