

## Source Code

```
#include<windows.h>

#include<stdlib.h>

#include<stdio.h>

#include <GL/gl.h>

#include <GL/glut.h>

float x1, x2, y1, y2;

void TakeInput()

{

printf("Value of x1 : ");

scanf("%f", & x1);

printf("Value of y1 : ");

scanf("%f", & y1);

printf("Value of x2 : ");

scanf("%f", & x2);

printf("Value of y2 : ");

scanf("%f", & y2);

}

void display(void)

{

float curr_x = x1;

float curr_y = y1;
```

```
glBegin(GL_POINTS);

glVertex2i(x1, y1);

glEnd();

while(curr_x != x2 && curr_y != y2)

{

float m = (y2 - curr_y) / (x2 - curr_x);

if(m > 1)

{

curr_x = curr_x + (1.0 / m);

curr_y = curr_y + 1;

}

else if(m > 0 && m < 1)

{

curr_x = curr_x + 1;

curr_y = curr_y + m;

}

glBegin(GL_POINTS);

glVertex2i(curr_x, curr_y);

glEnd();

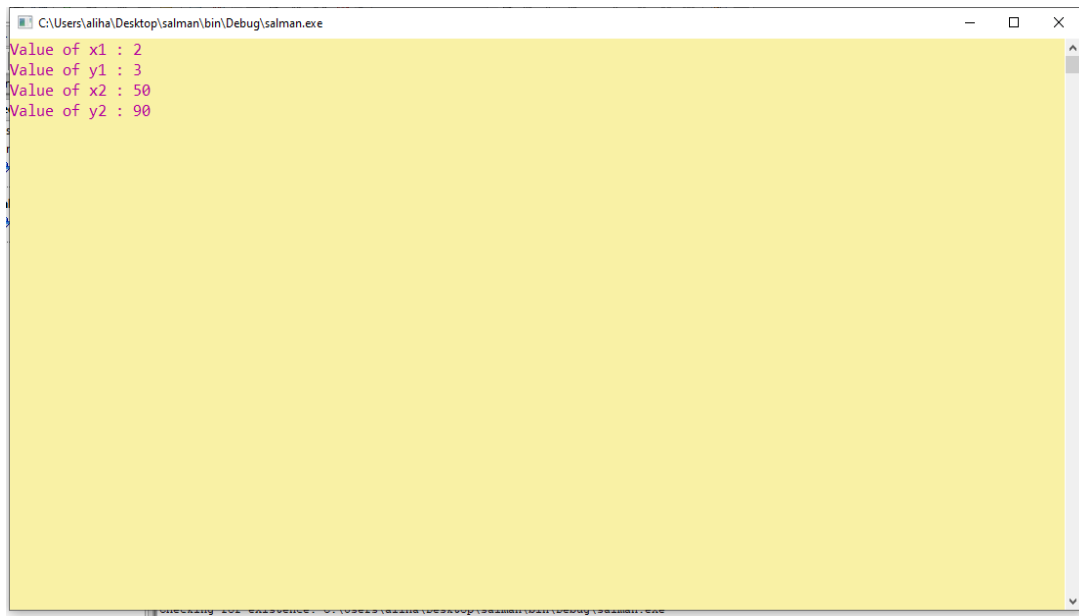
}

glFlush();

}
```

```
void myInit (void) {  
    glClear(GL_COLOR_BUFFER_BIT);  
    glClearColor(0, 0, 0, 0);  
    glMatrixMode(GL_PROJECTION);  
    glLoadIdentity();  
    gluOrtho2D(-100, 100, 100, -100);  
}  
  
int main(int argc, char ** argv) {  
    TakeInput();  
    glutInit( & argc, argv);  
    glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB);  
    glutInitWindowSize(500, 500);  
    glutInitWindowPosition(100, 100);  
    glutCreateWindow("");  
    myInit ();  
    glutDisplayFunc(display);  
    glutMainLoop();  
}
```

Input:



A screenshot of a Windows command prompt window. The title bar shows the file path "C:\Users\aliha\Desktop\sلمان\bin\Debug\sلمان.exe". The command prompt has a yellow background and displays four lines of text in red: "Value of x1 : 2", "Value of y1 : 3", "Value of x2 : 50", and "Value of y2 : 90".

```
C:\Users\aliha\Desktop\sلمان\bin\Debug\sلمان.exe
Value of x1 : 2
Value of y1 : 3
Value of x2 : 50
Value of y2 : 90
```

Output:

