```
#include <GL/glut.h>
#include <stdio.h>
int x1, y1, x2, y2;

void display(void)
{
   int dx = x2 - x1;
   int dy = y2 - y1;
   int d = 2 * dy - dx;
   int incrE = 2 * dy;
   int incrNE = 2 * (dy - dx);
   int x = x1, y = y1;
   glClear(GL_COLOR_BUFFER_BIT);
   glBegin(GL_POINTS);
   glVertex2i(x, y);
   while (x < x2)
   {
      if (d <= 0)
      {
         d += incrE;
         x++;
      }
      else
      {
         d += incrNE;
         x++;
```

```
            y++;
        }
        glVertex2i(x, y);
    }
    glEnd();
    glFlush();
}

void init()
{
    glClearColor(0.0, 0.0, 0.0, 0.0);
    glMatrixMode(GL_PROJECTION);
    gluOrtho2D(0, 640, 0, 480);
}

int main(int argc, char **argv)
{
    printf("Enter the value of x1: ");
    scanf("%d", &x1);
    printf("Enter the value of y1: ");
    scanf("%d", &y1);
    printf("Enter the value of x2: ");
    scanf("%d", &x2);
    printf("Enter the value of y2: ");
    scanf("%d", &y2);

    glutInit(&argc, argv);
```

```
    glutInitDisplayMode(GLUT_SINGLE | GLUT_RGB);
    glutInitWindowSize(500, 500);
    glutInitWindowPosition(0, 0);
    glutCreateWindow("Lab Task- Bresenham's Line Drawing Algorithm");
    init();
    glutDisplayFunc(display);
    glutMainLoop();
    return 0;
}
```