CG Practical Exam.

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Aim:

Implement Bresenham Line Drawing Algorithm. (GREEN)

Code:

```
#include<stdio.h>
#include<graphics.h>
void drawline(int x0, int y0, int x1, int y1)
{
   int dx, dy, p, x, y;
   dx=x1-x0;
   dy=y1-y0;
   x=x0;
   y=y0;
   p=2*dy-dx;
   while(x<x1)
   {
      if(p>=0)
      {
         putpixel(x,y,GREEN);
         y=y+1;
         p=p+2*dy-2*dx;
      }
      else
      {
         putpixel(x,y,GREEN);
         p=p+2*dy;}
         x=x+1;
      }
}
int main()
{
   int gdriver=DETECT, gmode, error, x0, y0, x1, y1;
   initgraph(&gdriver, &gmode, "c:\\turboc3\\bgi");
```

```
    printf("Enter the X co-ordinate of the first point: ");
    scanf("%d", &x0);
    printf("Enter the Y co-ordinate of the first point: ");
    scanf("%d", &y0);

    printf("Enter the X co-ordinate of the second point: ");
    scanf("%d", &x1);
    printf("Enter the Y co-ordinate of the second point: ");
    scanf("%d", &y1);

    drawline(x0, y0, x1, y1);
    return 0;
}
```

Output: