**Computer Graphics LAB**

**(**Experiment 6**)**

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* Bresenham Line Drawing Algorithm Implementation using C Programming Language.

**CODE -**

#include<conio.h>

#include<graphics.h>

#include<stdio.h>

int main(){

int x, y, x1, y1, x2, y2, dx, dy, dp\_gr, dp\_sm, dp;

int gd = DETECT, gm;

initgraph(&gd, &gm, "c:\\tc\\bgi");

printf("Enter co-ordinates of first point(intial) --> ");

scanf("%d%d", &x1, &y1);

printf("Enter co-ordinates of second point(final) --> ");

scanf("%d%d", &x2, &y2);

x = x1;

y = y1;

dx = x2-x1;

dy = y2-y1;

dp = (2\*dy)- dx;

dp\_gr = (2\*dy)-(2\*dx); // decision parameter >=0

dp\_sm = 2\*dy; // decision parameter < 0

while(x<x1){

if(dp>=0){

putpixel(x,y, WHITE);

dp = dp + dp\_gr;

y = y + 1;

}

else{

putpixel(x,y,WHITE);

dp = dp + dp\_sm;

}

x = x+1;

}

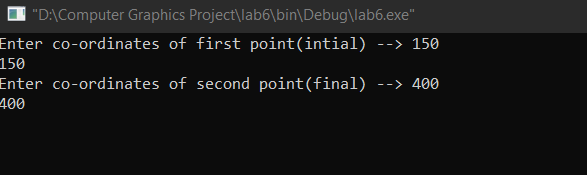
line(x1,y1,x2,y2);

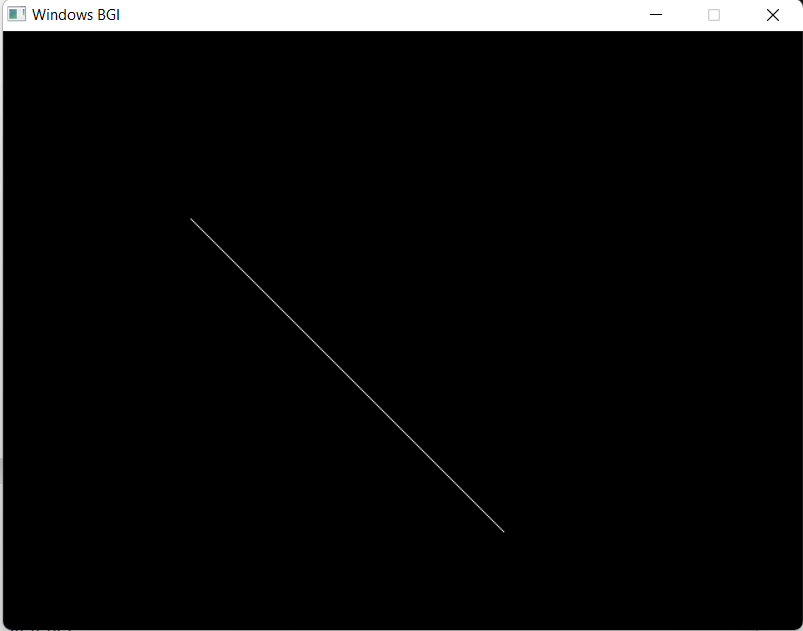
getch();

closegraph();

}

**OUTPUT -**

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