**Computer Graphics LAB**

**(**Experiment 5**)**

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* DDA(Digital Differential Analyzer) Line Drawing Algorithm Implementation using C Programming Language.

**CODE :**

#include<conio.h>

#include<graphics.h>

#include<stdio.h>

int main()

{

int gd = DETECT ,gm, i;

float x, y,dx,dy,steps, X\_incr, Y\_incr;

int x1, x2, y1, y2;

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

//x1 and y1 are co-ordinates of initial point and x2 and y2 are co-ordinates of final point

x1 = 100 , y1 = 100, x2 = 400, y2 = 400;

dx = x2 - x1; //change along x-axis

dy = y2 - y1; //change along y-axis

if(dx >= dy)

{

steps = dx;

}

else

{

steps = dy;

}

X\_incr = dx/steps;

Y\_incr = dy/steps;

x = x1;

y = y1;

i = 1;

while(i<= steps) //increment upto number of steps

{

putpixel(x, y, GREEN);

x += X\_incr;

y += Y\_incr;

i = i+1;

}

getch();

closegraph();

}

**OUTPUT :**

