#include<conio.h>

#include<graphics.h>

#include<math.h>

void ddaline(int x1, int y1, int x2, int y2) {

int s, m, dx, dy;

float xi, yi, x, y;

dx = x2 - x1;

dy = y2 - y1;

if (abs(dx) > abs(dy))

s = abs(dx); else

s = abs(dy);

xi = dx / (float) s;

yi = dy / (float) s;

x = x1;

y = y1;

putpixel(x1 + 0.5, y1 + 0.5, 15);

for (m = 0; m < s; m++) {

x += xi;

y += yi;

putpixel(x + 0.5, y + 0.5, 15);

}

}

void fill(int x, int y) {

int i, j;

for (i = x; i < (x + 50); i++)

ddaline(i, y, i, y + 50);

}

int main() {

int i, j, c = 0;

int gd = DETECT, gm = DETECT;

initgraph(&gd, &gm, "");

cleardevice();

ddaline(100, 50, 100, 450);

ddaline(100, 50, 500, 50);

ddaline(500, 50, 500, 450);

ddaline(100, 450, 500, 450);

for (i = 100; i < 500; i += 50) {

for (j = 50; j < 450; j += 50) {

if (c % 2 == 0)

fill(i, j);

c++;

}

c++;

}

getch();

}