#include<stdio.h>

#include<conio.h>

#include<math.h>

#include<graphics.h>

#include<dos.h>

#include<process.h>

int pixels[2][4];

float xn1,xn2,yn1,yn2,x3,y3,m;

int xmin,ymin,xmax,ymax,x1,y1,x2,y2;

int choice,ed[20],num;

void su\_co(int x1,int y1,int x2,int y2,int xmin,int ymin,int xmax,int ymax)

{

int i,j,fl;

for(i=0;i<2;i++)

for(j=0;j<4;j++)

pixels[i][j]=0;

if(y1>ymax)

pixels[0][0]=1;

if(y1<ymin)

pixels[0][1]=1;

if(x1>xmax)

pixels[0][2]=1;

if(x1<xmin)

pixels[0][3]=1;

if(y2>ymax)

pixels[1][0]=1;

if(y2<ymin)

pixels[1][1]=1;

if(x2>xmax)

pixels[1][2]=1;

if(x2<xmin)

pixels[1][3]=1;

for(j=0;j<4;j++)

{

if(pixels[0][j]==0&&pixels[1][j]==0)

continue;

if(pixels[0][j]==1&&pixels[1][j]==1)

{

fl=3;

break;

}

fl=2;

}

switch(fl)

{

case 1:

line(320+x1,240-y1,320+x2,240-y2);

break;

case 3:

printf(“\n\n\a\” Line Is Not Visible…:”);

break;

case 2:

m=(y2-y1)/(x2-x1);

xn1=x1;

yn1=y1;

xn2=x2;

yn2=y2;

if(pixels[0][0]==1)

{

xn1=x1+(ymax-y1)/m;

yn1=ymax;

}

if(pixels[0][1]==1)

{

xn1=x1+(ymin-y1)/m;

yn1=ymin;

}

if(pixels[0][2]==1)

{

yn1=y1+(xmax-x1)\*m;

xn1=xmax;

}

if(pixels[0][3]==1)

{

yn1=y1+(xmin-x1)\*m;

xn1=xmin;

}

if(pixels[1][0]==1)

{

xn2=x2+(ymax-y2)/m;

yn2=ymax;

}

if(pixels[1][1]==1)

{

xn2=x2+(ymin-y2)/m;

yn2=ymin;

}

if(pixels[1][2]==1)

{

yn2=y2+(xmax-x2)\*m;

xn2=xmax;

}

if(pixels[1][3]==1)

{

yn2=y2+(xmin-x2)\*m;

xn2=xmin;

}

line(320+xn1,240-yn1,320+xn2,240-yn2);

break;

}

}

void cohen()

{

clearviewport();

line(320+xmin,240-ymin,320+xmin,240-ymax);

line(320+xmin,240-ymax,320+xmax,240-ymax);

line(320+xmax,240-ymax,320+xmax,240-ymin);

line(320+xmax,240-ymin,320+xmin,240-ymin);

line (320+x1,240-y1,320+x2,240-y2);

getch();

cleardevice();

line(320+xmin,240-ymin,320+xmin,240-ymax);

line(320+xmin,240-ymax,320+xmax,240-ymax);

line(320+xmax,240-ymax,320+xmax,240-ymin);

line(320+xmax,240-ymin,320+xmin,240-ymin);

su\_co(x1,y1,x2,y2,xmin,ymin,xmax,ymax);

getch();

}

void main()

{

int gd=DETECT,gm,i,j;

initgraph(&gd,&gm,”..\\bgi”);

printf(“\n\n\t\t\” Enter The Co-Ordinates Of The Clipping Window.\”");

printf(“\n\n\t\t\” Enter X(min) & Y(min) \”:=”);

scanf(“%d %d”,&xmin,&ymin);

printf(“\n\t\t\” Enter X(max) & Y(max) \”:=”);

scanf(“%d %d”,&xmax,&ymax);

printf(“\n\t\t\” Enter The Co-Ordinates Of The Line.\”");

printf(“\n\n\t\t\” Enter X(1) & Y(1) \”:=”);

scanf(“%d %d”,&x1,&y1);

printf(“\n\t\t\” Enter X(2) & Y(2) \”:=”);

scanf(“%d %d”,&x2,&y2);

clrscr();

cohen();

}