**CODE :**

```c
#include <stdio.h>
#include<math.h>
#include<graphics.h>

int main(){
    int x,y,dx,dy,x1,x2,y1,y2,p,end;
    int gd = DETECT,gm;
    initgraph(&gd,&gm,"");// initialise the graphics mode(creates a screen)
    //Input  the  co-ordinates of points
    printf("Enter the x co-ordinate of point 1 : ");
    scanf("%d" , &x1);

    printf("Enter the y co-ordinate of point 1 : ");
    scanf("%d" , &y1);

    printf("Enter the x co-ordinate of point 2 : ");
    scanf("%d" , &x2);

    printf("Enter the x co-ordinate of point 2 : ");
    scanf("%d" , &y2);

    dx = abs(x2-x1);   //deviation in x
    dy = abs(y2-y1);  //deviation in y

    p = 2*dy-dx;  //Calculating the initial decision parameter


    if(x1>x2)
    {
        x = x2;
        y = y2;
        end = x1;
    }
    else
    {
```

```
            x = x1;
            y = y1;
            end = x2;
      }
      putpixel(x,y,1);    //puts the initial point on screen

      // Used to change the decision parameter based on the previous parameter
      while(x<end)
      {
            x = x+1;
            if(p<0)
            {
            p = p + 2*dy;
            }
            else
            {
                  y = y+1;
                  p = p + 2*dy - 2*dx;
            }
            putpixel(x,y,1);   //puts the next points after the initial till
the loop ends
      }
      closegraph();// used to close the graph
      return 0;
}
```

**OUTPUT FOR CODE :**