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Q1) write an algorithm and program to implement Floodfill algorithm using 8 connected approach

```c
# include <stdio.h>
# include <graphics.h>
# include < dos.h>
# include <conio.h>

void floodfill (int x, int y, int old, int newcol)
{
    int current;
    current = getpixel(x,y);
    if (current == old)
    {
```

```c
delay(5);
Putpixel(x,y, newcol);
Floodfill (x+1, y, old, newcol);
Floodfill (x, y+1, old, newcol);
Floodfill (x, y-1, old, newcol);
Floodfill (x+1, y+1, old, newcol);
Floodfill (x-1, y+1, old, newcol);
Floodfill (x+1, y-1, old, newcol);
Floodfill (x-1, y-1, old, newcol);
}


Void main()
{
    int gd = DETECT, gm;
    initgraph(&gd, &gm, "C:\\TURBOC3\\BGI");
    rectangle(50, 50, 150, 150);
    Floodfill(70, 70, 0, 15);
    getch();
    closegraph();
}
```

# Algorithum

floodfill (x, y, old color, newcolor)

1) If x or y is outside the screen, then return n

2) If color of getpixel (x, y) is same as old color
   then for top

3) Recur for
   floodfill (x, y, old color, new color)
   floodfill (x+1, y, old color, new color)
   floodfill (x-1, y, old color, new color)
   floodfill (x, y-1, old color, new color)
   floodfill (x+1, y+1, old color, new color)
   floodfill (x-1, y+1, old color, new color)
   floodfill (x+1, y-1, old color, new color).
   floodfill (x-1, y-1, old color, new color)