**Program: Flood-Fill with Stack**

#include<stdio.h>

#include<math.h>

#include<graphics.h>

#include<dos.h>

#define empty -1

#define max 4000

typedef struct node

{

int x,y;

}Node;

Node stack[max],seed;

int top=empty;

void push(int x,int y);

Node pop();

void floodfillme(int bg,int fill);

void main()

{

int i,gd=DETECT,gm,col;

initgraph(&gd,&gm,"C:\\TURBOC3\\BGI\\");

printf("Initial color is Yellow \n");

setcolor(YELLOW);

circle(150,100,30);

setfillstyle(SOLID\_FILL,14);

floodfill(151,101,14); //sun

printf("Enter coordinates of seed pixel\n");

scanf("%d %d",&seed.x,&seed.y);

printf("ENTER THE VALUE OF COLOUR:");

scanf("%d",&col);

delay(10);

floodfillme(14,col);

getch();

//closegraph();

}

void push(int x,int y)

{

top++;

stack[top].x=x;

stack[top].y=y;

}

Node pop()

{

Node p;

p.x=stack[top].x;

p.y=stack[top].y;

top--;

return p;

}

void floodfillme(int bg,int fill)

{

Node px;

int x,y,color;

push(seed.x,seed.y);

while(top!=empty)

{

px=pop();

color=getpixel(px.x,px.y);

if(color==bg)

{

putpixel(px.x,px.y,fill);

}

x=px.x;

y=px.y;

color=getpixel(x+1,y);

if(color!=fill && color==bg)

push(x+1,y);

color=getpixel(x,y+1);

if(color!=fill && color==bg)

push(x,y+1);

color=getpixel(x-1,y);

if(color!=fill && color==bg)

push(x-1,y);

color=getpixel(x,y-1);

if(color!=fill && color==bg)

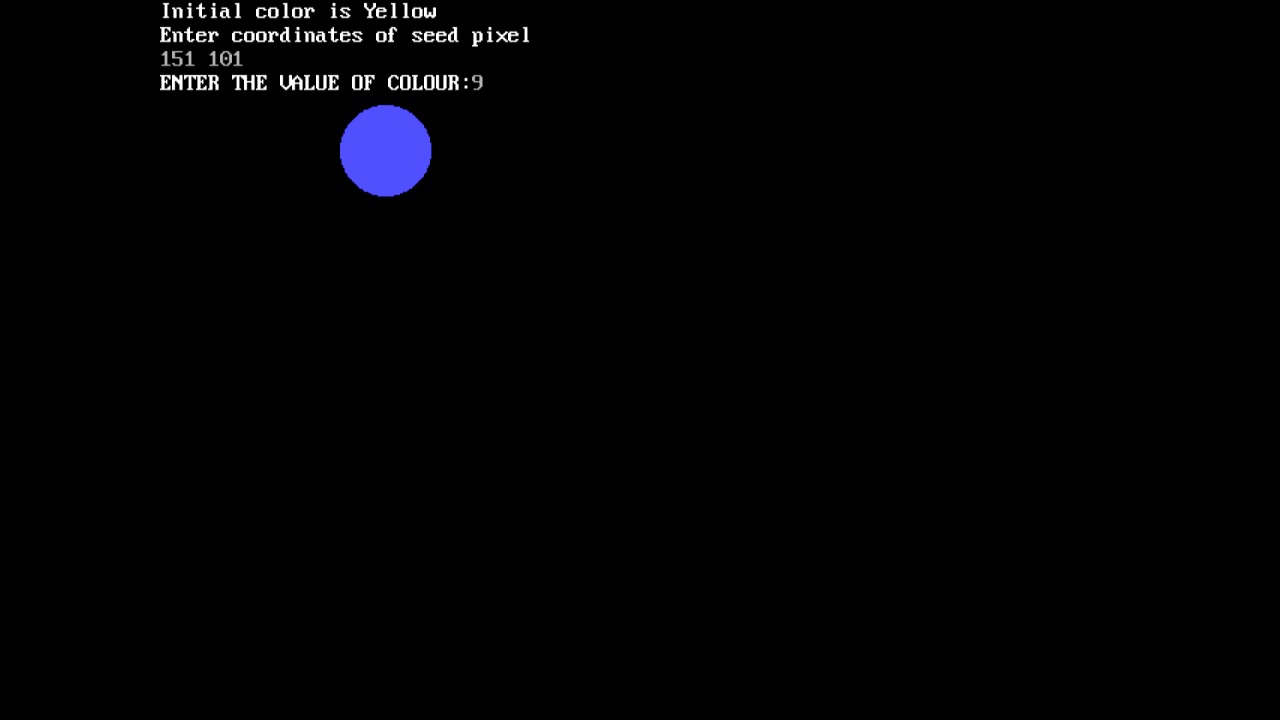
push(x,y-1);

}

}

**Output:**

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