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#include <stdio.h>
#include <stdlib.h>
#define HEIGHT 400
#define WIDTH 800
struct point
{
    char blue;
    char green;
    char red;
};
struct point truecolor[WIDTH][HEIGHT];
char color[HEIGHT*WIDTH*3];
void paint_point(int x, int y, struct point shade)
{
    truecolor[x][y].blue=shade.blue;
    truecolor[x][y].green=shade.green;
    truecolor[x][y].red=shade.red;
}
int main()
{
    //FILE *fp;
    //fp=fopen("image.txt","w");
    //fclose(fp);
    FILE *ty;
    ty=fopen("test1.bmp","rb");
    char mass[54];
    fread(mass, sizeof(char), 54, ty);
    FILE *ty2;
    ty2=fopen("result.bmp","wb");
    fwrite(mass, sizeof(char),54,ty2);
    int i;
    int g;
    //for(i=0;i<HEIGHT*WIDTH*3;i++)
    // {
    //     color[i]=255;
    // }
    for(i=0;i<WIDTH;i++)
    {
        for(g=0;g<HEIGHT;g++)
        {
            truecolor[i][g].blue=255;
            truecolor[i][g].green=0;
            truecolor[i][g].red=255;
        }
    }
    struct point mypoint;
    mypoint.blue=0;
    mypoint.green=0;
    mypoint.red=0;
    paint_point(120, 200, mypoint);
}

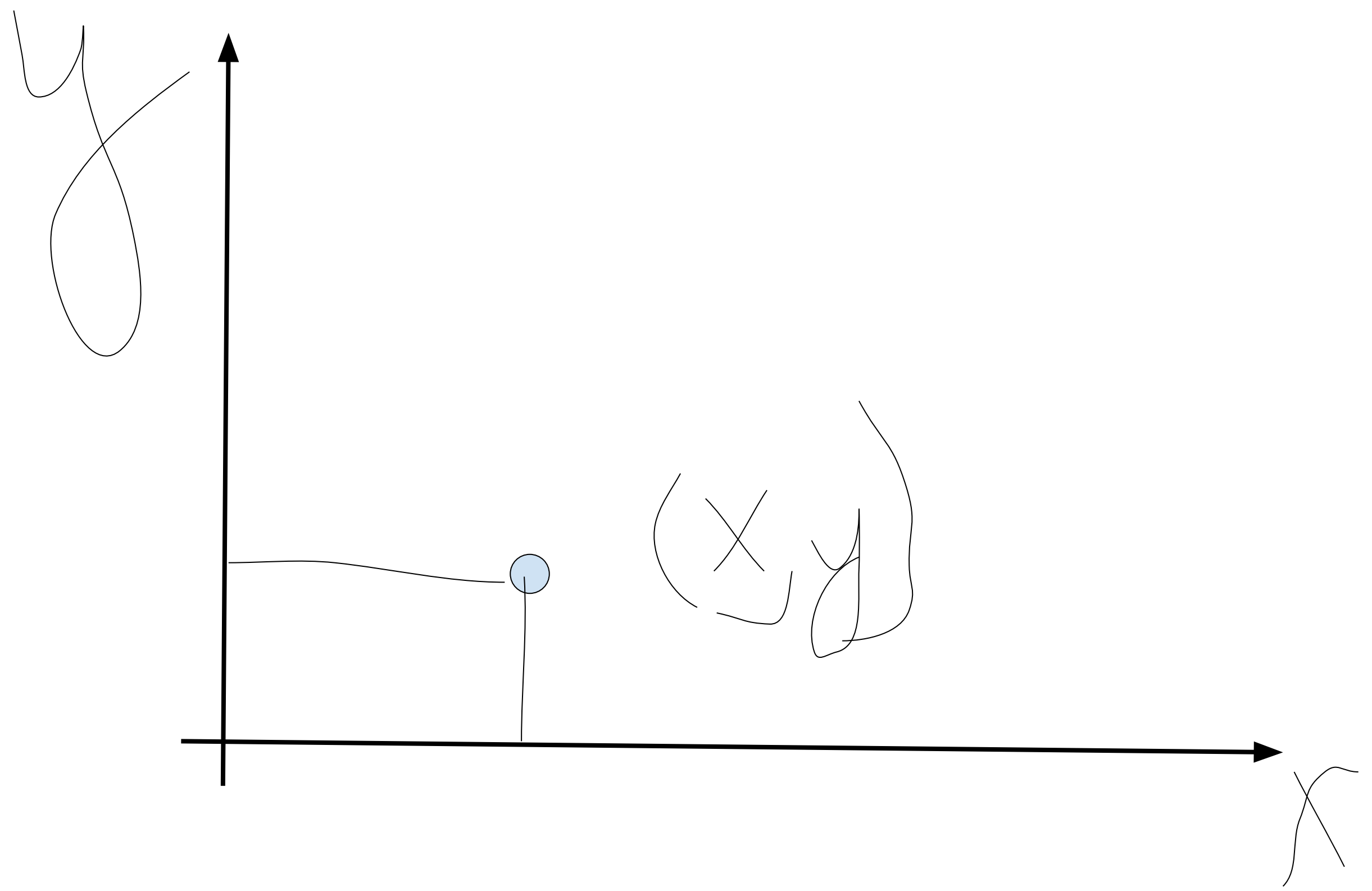
int a=0;
//for(i=WIDTH-1;i>=0;i--)
for(g=0;g<HEIGHT;g++)
{
    for(i=0;i<WIDTH;i++)
    {
        color[a]=truecolor[i][g].blue;
        color[a+1]=truecolor[i][g].green;
        color[a+2]=truecolor[i][g].red;
        a+=3;
    }
}
fwrite(color,sizeof(char),HEIGHT*WIDTH*3,ty2);
fclose(ty);
fclose(ty2);
}

```

```

void pain_rectangle(int x1,int y1,int x2,int y2,struct point shade)
{
    if(x1<=800 && x2<=800 && y1<=400 && y2<=400 && 0<=x1 && 0<=x2 && 0<=y1 && 0<=y2)
    {
        int i;
        int g;
        int minx;
        int miny;
        int maxx;
        int maxy;
        int situation;
        if(x1<x2 && y1<y2)
        {
            minx=x1;
            miny=y1;
            maxx=x2;
            maxy=y2;
            situation=1;
        }
        if(x1>x2 && y1>y2)
        {
            minx=x2;
            miny=y2;
            maxx=x1;
            maxy=y1;
            situation=1;
        }
        if(situation==1)
        {
            for(i=minx;i<=maxx;i++)
            {
                for(g=miny;g<=maxy;g++)
                {
                    truecolor[i][g].blue=shade.blue;
                    truecolor[i][g].green=shade.green;
                    truecolor[i][g].red=shade.red;
                }
            }
        }
        if(x1>x2 && y1<y2)
        {
            minx=x2;
            miny=y1;
            maxx=x1;
            maxy=y2;
            situation=0;
        }
        if(x1<x2 && y1>y2)
        {
            minx=x1;
            miny=y2;
            maxx=x2;
            maxy=y1;
            situation=0;
        }
        if(situation==0)
        {
            for(i=minx;i<=maxx;i++)
            {
                for(g=maxy;g>=miny;g--)
                {
                    truecolor[i][g].blue=shade.blue;
                    truecolor[i][g].green=shade.green;
                    truecolor[i][g].red=shade.red;
                }
            }
        }
    }
    else
    {
        printf("ERROR");
    }
}

```



topleft(x1,y1)



bottomright(x2,y2)