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#include <stdio.h>
#include <time.h>
#include <stdlib.h>

struct RGB_Image{
	int R[5][5];
	int G[5][5];
	int B[5][5];
};

struct grayScale_Image{
	int myArray[5][5];
};

struct RGB_Image *formRGBImage(int num){
	int i,j,k;
	srand(time(NULL));
	struct RGB_Image *my_image;
	my_image= (struct RGB_Image*)malloc(num*sizeof(struct RGB_Image));

	for(k=0;k<num;k++){
		for(i=0;i<5;i++){
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                for(j=0;j<5;j++){
                        my_image[k].R[i][j] = rand() %256;
                        my_image[k].G[i][j] = rand() %256;
                        my_image[k].B[i][j] = rand() %256;
                }
        }
        return my_image;
}

struct grayScale_Image *thresholding(struct RGB_Image *my_image, int thresholding_num, int num){
        int i,j,k;
        struct grayScale_Image *grayScale;
        grayScale = (struct grayScale_Image*)malloc(num*sizeof(struct grayScale_Image));
        for(k=0;k<num;k++){
                for(i=0;i<5;i++){
                        for(j=0;j<5;j++){
                                if (thresholding_num > (my_image[k].R[i][j]+ my_image[k].G[i][j]
+my_image[k].B[i][j])/3)
                                        grayScale[k].myArray[i][j] = 0;
                                else
                                        grayScale[k].myArray[i][j] = 1;
                        }
                }
        }
        return grayScale;
```

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}

void displayThresholdedImage(struct grayScale_Image *grayScale, int num){
	int i,j,k;
	for(k=0;k<num;k++){
		printf("\n******Image %d*****\n",k+1);
		for(i=0;i<5;i++){
			for(j=0;j<5;j++){
				if (j==4){
					printf("%d\n",grayScale[k].myArray[i][j]);
					continue;
				}
				printf("%d\t",grayScale[k].myArray[i][j]);
			}
		}
	}
}

int main(){
	struct RGB_Image *my_image;
	struct grayScale_Image *grayScale;
	int num, thresholding_num;
	printf("Please enter how many images you want to create: ");
	scanf("%d",&num);
	my_image = formRGBImage(num);
```

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        printf("Please enter the thresholding value: ");
        scanf("%d",&thresholding_num);

        grayScale = thresholding(my_image, thresholding_num, num);

        displayThresholdedImage(grayScale, num);

        return 0;
}
```