

IMAGE HISTOGRAM USING SCILAB

EXP. NO: 2a.

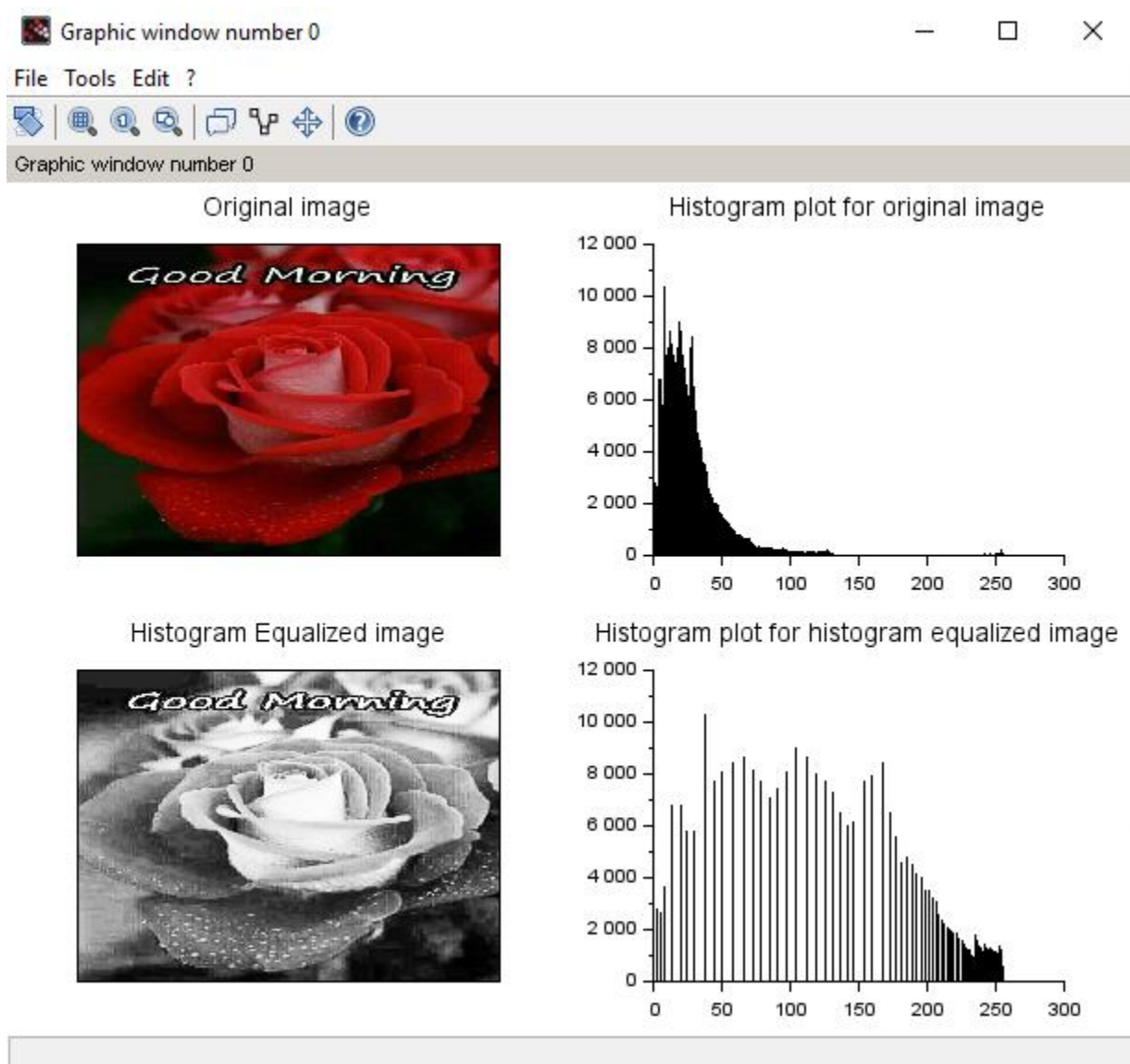
OBJECTIVE:

To understand how frequency distribution can be used to represent an image.

CODE:

```
clc ;
clear;
close;
img= imread ('rose.jpeg');
subplot(2,2,1);
title('Original image');
imshow(img);
img=rgb2gray(img);
[count,cells ]= imhist (img);
subplot(2,2,2);
plot2d3 ('gnn' , cells , count )
title('Histogram plot for original image');
Iheq = imhistequal(img);
[count,cells ]= imhist (Iheq);
subplot(2,2,3);
title('Histogram Equalized image');
imshow(Iheq);
subplot(2,2,4);
plot2d3 ('gnn' , cells , count )
title('Histogram plot for histogram equalized image');
```

SAMPLE OUTPUT:



Result:

Thus the frequency distribution and correlation between the images using histogram has been executed successfully.

IMAGE THRESHOLDING

EXP. NO: 2b.

OBJECTIVE:

To find the threshold of an image and segment it.

CODE:

```
RGB = imread ("Cars.jpg");  
Image = rgb2gray(RGB);  
InvertedImage = uint8(255 * ones(size(Image,1), size(Image,2))) - Image;  
Histogram=imhist(InvertedImage);  
figure();plot(0:255, Histogram')  
xgrid(color('black'),1,8)  
LogicalImage = im2bw(InvertedImage, 100/255);  
f1=scf(1);f1.name='Original Image';  
imshow(Image);  
f2=scf(2);f2.name='Inverted Image';  
imshow(InvertedImage);  
f3=scf(3);f3.name='Result of Thresholding';  
imshow(LogicalImage);
```

RESULT:

Image was segmented successfully according to threshold value.