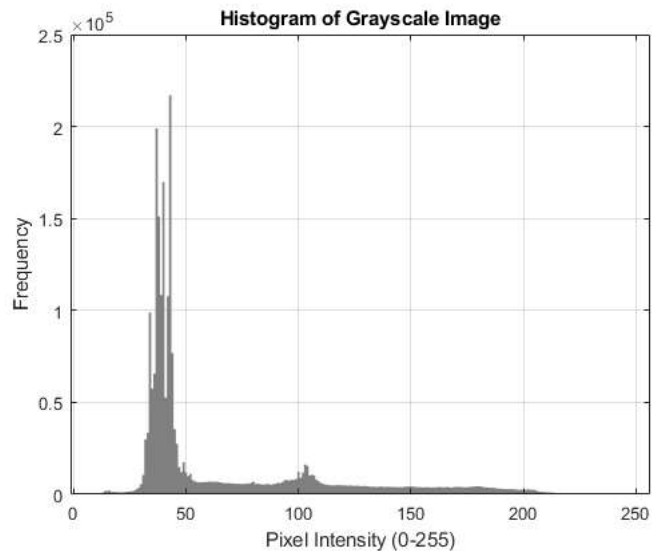
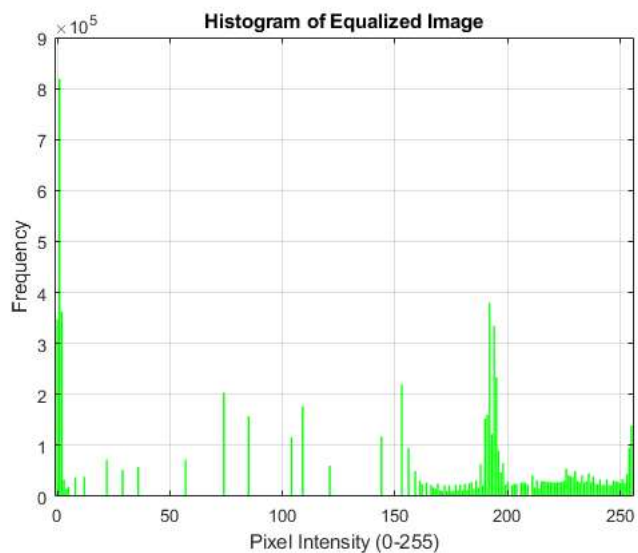


```
clc
clear all;
close all;
colorimg=imread("image.jpg");
grayImage=rgb2gray(colorimg);
montage({grayImage,colorimg});
L = 256;
histogram = zeros(1, L);
[M, N] = size(grayImage);
for ii = 1:M
    for jj = 1:N
        pixel_value = grayImage(ii, jj); % Get pixel intensity
        histogram(pixel_value + 1) = histogram(pixel_value + 1) + 1;
    end
end
total_pixels = sum(histogram);
normalized_histogram = histogram / total_pixels;
cdf = cumsum(normalized_histogram);
cdf_min = min(cdf(cdf > 0));
normalized_cdf = round((cdf - cdf_min) / (1 - cdf_min) * (L - 1));
equalized_image = uint8(normalized_cdf(colorimg + 1));
equalized_histogram = imhist(equalized_image);
figure;
bar(0:L-1, histogram, 'BarWidth', 1, 'FaceColor', [0.5 0.5 0.5]);
xlabel('Pixel Intensity (0-255)');
ylabel('Frequency');
title('Histogram of Grayscale Image');
grid on;
figure;
bar(0:L-1, equalized_histogram, 'FaceColor', 'g');
xlabel('Pixel Intensity (0-255)');
ylabel('Frequency');
title('Histogram of Equalized Image');
grid on;
figure;
imshow(equalized_image);
title('Equalized Image');
```





Equalized Image

