

# Computer Vision HW3

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## 實作一

1. 使用軟體；matlab

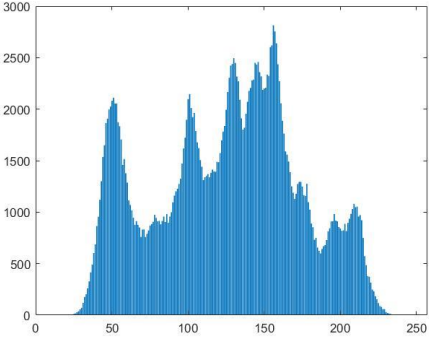

2. code

```
img = rgb2gray(imread('lena.jpg'));
[a,b] = size(img);
figure, imshow(img);
hist = zeros(1,256);
acc = hist;
hist2 = hist;
for i = 0:255
    hist(i+1) = length(find(img == i));
end
for i = 0:255
    acc(i+1) = sum(hist(1:i));
end
img2 = zeros(a,b);
for i = 0:255
    img2(img == i) = 255*(acc(i+1)/(a*b));
end
figure, imshow(uint8(img2));
figure, bar(hist);
img2 = round(img2);
for i = 0:255
    hist2(i+1) = length(find(img2 == i));
end
figure, bar(hist2);
```

3. 作業說明

a. 程式流程：讀入圖片、產生原圖的直方圖、histogram equalization、產生結果直方圖

## 執行結果

	histogram	image
原圖		
Histogram equalization	