

Question 4

```
% Load the image
img = imread('IMAGES/Screenshot_2.jpg');
grayImg = rgb2gray(img);
imshow(img);
```



```
% Normalize the image
normalizedImg = double(grayImg) / 255;
```

```
% Quantize to 32 levels
quantizedLevels = 32;
quantizedImg = floor(normalizedImg * (quantizedLevels - 1));
```

```
% Resize the quantized image to the original size
finalQuantizedImg = imresize(uint8(quantizedImg), size(grayImg));
```

```
% Convert the final image to uint8
finalQuantizedImg = uint8(finalQuantizedImg * (255 / (quantizedLevels - 1)));
```

```
% Display the original and quantized images
```

```
figure;  
subplot(1, 2, 1);  
imshow(grayImg);  
  
subplot(1, 2, 2);  
imshow(finalQuantizedImg);
```

