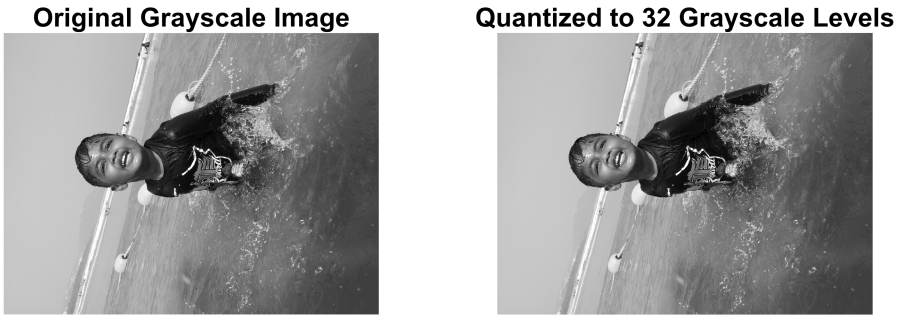
```
% Loading the image from the specified path and converting it to grayscale
image = imread('C:\Users\USER\Pictures\IMG_5745.JPG');
gray_image = rgb2gray(image);  % Converting to grayscale

% Reducing the grayscale levels to 32
quantized_image = round(imresize(double(gray_image), 1)) / 8;  % Quantizing to 32
levels (256/32 = 8)
quantized_image = uint8(quantized_image * 8);  % Converting back to uint8 format

% Displaying the original and quantized images side by side
figure;
subplot(1, 2, 1), imshow(gray_image), title('Original Grayscale Image');
subplot(1, 2, 2), imshow(quantized_image), title('Quantized to 32 Grayscale
Levels');
```




```
% Saving the quantized image
imwrite(quantized_image, 'C:\Users\USER\Desktop\quantized_image.png');
```