

5. Take an image and quantize it to 32 grayscale levels using only the `imresize` function

```
% Step :1 load the image
input_img=imread('image.jpeg');
img_gray=rgb2gray(input_img);
% Step :2 Normalize grayscale image
normalized_img=double(img_gray)/255;
% Step :3 Resize the image to 32 levels
img_resized=imresize(normalized_img,[32,32],'nearest');

%step :4 Resize back to original size
img_quantized=imresize(img_resized,size(img_gray),'nearest');

%step :5 Scale back to grayscale range

img_quantized=uint8(img_quantized*255);

%display the results
imshow(img_quantized),title('quantized to 32 grayscale levels')
```



