```
% Load the image
img = imread('https://images.pexels.com/photos/1308881/pexels-
photo-1308881.jpeg?cs=srgb&dl=pexels-soldiervip-1308881.jpg&fm=jpg'); %
Replace with your image file
img = rgb2gray(img); % Convert to grayscale if it's a color image
img = im2double(img); % Convert to double precision (0 to 1)
% Get the original size
[original_rows, original_cols] = size(img);

% Define a smaller size to quantize
target_size = [8, 8]; % This will reduce the levels to 32

% Resize the image down
img_small = imresize(img, target_size, 'bilinear');
% Resize the small image back to original size
img_quantized = imresize(img_small, [original_rows, original_cols],
'bilinear');
% Display the images
figure;
subplot(1, 2, 1), imshow(img), title('Original Image');
subplot(1, 2, 2), imshow(img_quantized), title('Quantized Image (32
Levels)');
```