

```

% Task 5: Quantization of Image to 32 Grayscale Levels
clc; clear; close all;

% Read the image
img = imread('image.jpg');
gray_img = rgb2gray(img);

% Convert to double and normalize
gray_img = double(gray_img) / 255;

% Quantize to 32 levels
num_levels = 32;
quantized_img = round(gray_img * (num_levels - 1)) / (num_levels - 1);

% Display original and quantized images
figure;
subplot(1, 2, 1), imshow(gray_img), title('Original Grayscale Image');
subplot(1, 2, 2), imshow(quantized_img), title('Quantized to 32 Levels');

```

