**Practical No: 7**

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% Read an image

original\_image = imread("C:\Users\kulso\Desktop\vegetables.jpeg");

% Convert the image to double precision for DCT computation

original\_image = im2double(original\_image);

% Perform DCT

dct\_image = dct2(original\_image);

% Display the original and DCT-transformed images

subplot(1,2,1);

imshow(original\_image);

title('Original Image');

subplot(1,2,2);

imshow(log(abs(dct\_image)), []);

title('DCT Transformed Image');

% You may also use the inverse DCT (IDCT) to reconstruct the image

% Reconstruct the image using inverse DCT

reconstructed\_image = idct2(dct\_image);

% Display the reconstructed image

figure;

imshow(reconstructed\_image);

title('Reconstructed Image');

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