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EXERCISE 2:

Identify which intensity transformation was used on liftingbody.png to create each of the four results below. Write a script to reproduce the results using the intensity transformation functions.

CODE:

```
Function intensityTransformations()    % Read the
original    image                    originalImage    =
imread('house.jpeg');

% Ensure the image is grayscale    If
ndims(originalImage) == 3    originalImage =
rgb2gray(originalImage);    end

% Apply transformations

% 1. Darkened image (Result 1)
Result1 = imadjust(originalImage, [], [], 0.5); % Gamma correction with gamma < 1

% 2. Brightened image (Result 2)
Result2 = imadjust(originalImage, [], [], 1.5); % Gamma correction with gamma > 1

% 3. High contrast image (Result 3)
Result3 = histeq(originalImage); % Histogram equalization

% 4. Low contrast image (Result 4)
Result4 = imadjust(originalImage, [0.3 0.7], [0.4 0.6]); % Adjust intensity range

% Display results
```

Figure;

Subplot(2, 3, 1);

Imshow(originalImage);

Title('Original Image');

Subplot(2, 3, 2);

Imshow(result1);

Title('Result 1: Darkened');

Subplot(2, 3, 3);

Imshow(result2);

Title('Result 2: Brightened');

Subplot(2, 3, 4);

Imshow(result3);

Title('Result 3: High Contrast');

Subplot(2, 3, 5);

Imshow(result4);

Title('Result 4: Low Contrast');

End