Short Note on Assignment 2

1. Resize

Image resized to 256x256 pixels to normalize input dimensions for uniform processing through “imresize(img,[256 256])”.

2. Grayscale Conversion

The color image was converted to grayscale to simplify processing and focus on intensity features through “rgb2gray(img)”.

3. Gaussian Blur

Applied Gaussian filter to reduce noise and smooth the imag through “imgaussfilt(grayImage, 2)”.

4. Sharpening

It sharpening highlights edges and details using high-pass filtering through “imsharpen(grayImage)”.

5. Histogram Equalization

It enhance contrast using `histeq`, which spreads out intensity levels.

6. Binarization

Converted grayscale image to binary using `imbinarize` to separate foreground from background. Its showing only black and white colour.

7. Connected Components Labeling

Used `bwlabel` and `label2rgb` to detect and visualize different regions in the binary image.