DIGITAL IMAGE PROCESSING 1
UE20EC317
ASSIGNMENT 1

Using MATLAB, implement the following and show the outputs in next AHP session:

Note: You may use any image you like unless the question specifies otherwise

1. Resize a 512x512 image breadthwise by pixel replication without using in-built functions. The final image should be of size 512x1024

2. Apply thresholding on grayscale Lena.bmp and Barbara.bmp images without using inbuilt functions and convert them to binary images. See the effect of different thresholds and comment on your observation.

3. Plot the histogram for 'Cameraman.png'. Then:
i) Add 80 to each pixel in the original image. Plot the histogram for this.
ii) Subtract 80 from each pixel in the original image. Plot the histogram for this.
How does the original image differ from the images obtained in i) and ii)? What can you say about the histograms obtained in i) and ii)? Overall, what conclusion can be drawn?

4. Import any image and multiply by a constant that is
i) Greater than 1
ii) Lesser than 1
With the help of subplots display all 3 images in one window and compare them. What do you observe in each case?

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